



Proceedings of
IEEE/IFIP Network Operations
and
Management Symposium 2020

Management in the Age of Softwarization and Artificial Intelligence

20-24 April 2020



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Virtual conference instructions

Last minutes changes in program (schedule and webinar rooms) can occur, please always check NOMS 2020 website

<https://noms2020.ieee-noms.org/program>.

All times listed are in Central European Summer Time (CEST)

Below is the link for accessing the virtual session of each day. Please use the password provided to you by email with subject *Webinar Links: 2020 IEEE NOMS Virtual Conference* from *nomsreg@ieee.org*.

- Day 1: 20 April, <https://noms2020.ieee-noms.org/day-1-april-20-virtual-conference>
- Day 2: 21 April, <https://noms2020.ieee-noms.org/day-2-april-21-virtual-conference>
- Day 3: 22 April, <https://noms2020.ieee-noms.org/day-3-april-22-virtual-conference>
- Day 4: 23 April, <https://noms2020.ieee-noms.org/day-4-april-23-virtual-conference>
- Day 5: 24 April, <https://noms2020.ieee-noms.org/day-5-april-24-virtual-conference>

Presenter Instructions

You are asked to get prepared to do your presentation via Webex Events, which is available on all major computer platforms and in browser, as well.

Please prepare with a 16:9 sized presentation format either in pdf or ppt(x) that you can share from your computer.

Dedicated Webex Events sessions will be assigned to the technical sessions, where you can share your screen and give a live talk together with camera feed. You will have a 30 minutes long slot altogether, including take over the screen, give the talk and give room for the questions (to be collected in the chat field of Webex Events). Hence, the maximum length of the presentation 20 minutes, please do not exceed that. The presenter must be available on-line for take the questions and answer them part of the slot, even if the presentation is pre-recorded. Each session will have a chair as usual, who will give the control to the actual presenter.

A guided test session will be provided where you can check your presentation.

While we all prefer live presentation (even if on-line), it is wise to have a plan B for unexpected situations. As a best practice we suggest all authors to prepare a pre-recorded video of their presentation (e.g., ppt with voice-over,

or even more elaborated video styles; uploaded as a hidden YouTube video). Even if we use a pre-recorded video, the author has to be there for the Q & A session, otherwise the paper cannot make it into the proceedings and IEEEExplore.

Please upload your presentation material (pdf/ppt or video, even a zip file) to JEMS latest after your presentation. A dedicated upload possibility is opened for that case.

Additional details should come and will be available at <https://noms2020.ieee-noms.org/authors>. Don't hesitate to contact the chairs, in case you have any doubts.

Step-by-step tutorial

With your registration you are entitled to attend IEEE/IFIP NOMS 2020 in a virtual setting this time. And you should have by now received an email from nomsreg@ieee.org with the subject line: *Webinar Links: 2020 IEEE NOMS Virtual Conference*.

It contains a set of links, especially the ones for the various sessions from Monday to Friday April 20-24, 2020 and a password that you will have to use reach those Web pages, which brings you to the right Webex links.

Thus, to start, you will see at <https://noms2020.ieee-noms.org/2020-virtual-conference-program-links> the following Web site view:

IEEE/IFIP Network Operations and Management Symposium
20-24 April 2020 // Budapest, Hungary
Management in the Age of Softwarization and Artificial Intelligence

IEEE ComSoc
IEEE Communications Society

ifip

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2020 Virtual Conference Program Links

2020 VIRTUAL CONFERENCE PROGRAM LINKS

KEYNOTES

DISTINGUISHED EXPERTS PANEL

TECHNICAL SESSIONS

EXPERIENCE SESSIONS

DISSERTATION DIGESTS

MINI-CONFERENCE

TUTORIALS

WORKSHOPS

BELOW IS THE PROGRAM FOR EACH EVENT

DAY 1: 20 APRIL
<https://noms2020.ieee-noms.org/day-1-april-20-virtual-conference>

DAY 2: 21 APRIL
<https://noms2020.ieee-noms.org/day-2-april-21-virtual-conference>

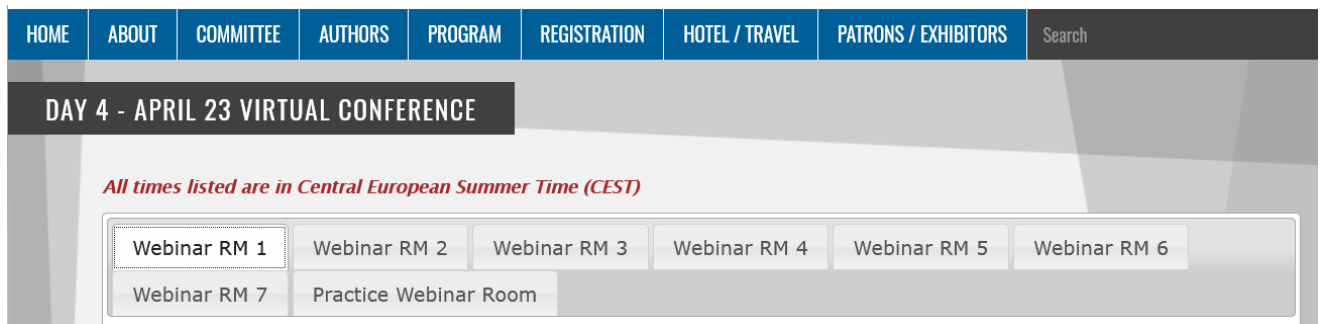
DAY 3: 22 APRIL
<https://noms2020.ieee-noms.org/day-3-april-22-virtual-conference>

DAY 4: 23 APRIL
<https://noms2020.ieee-noms.org/day-4-april-23-virtual-conference>

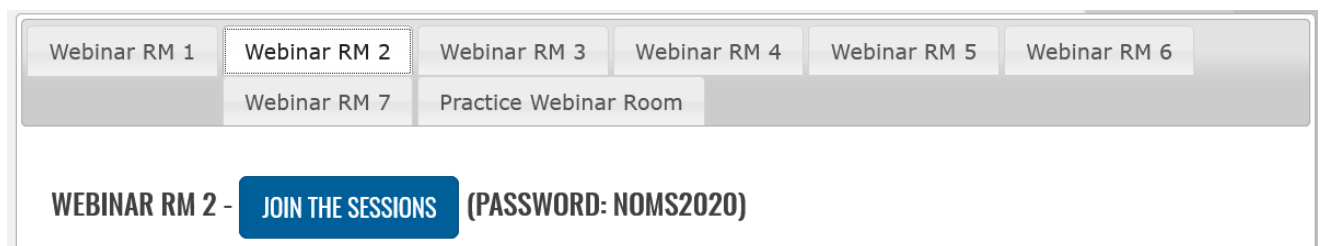
2020 PROVIDED TO YOU FROM

Of course, upon the selection of the right day link for the session you need to select that. Below is the example shown for Thursday April 23, 2020 (<https://noms2020.ieee-noms.org/day-4-april-23-virtual-conference>). Do run the following steps:

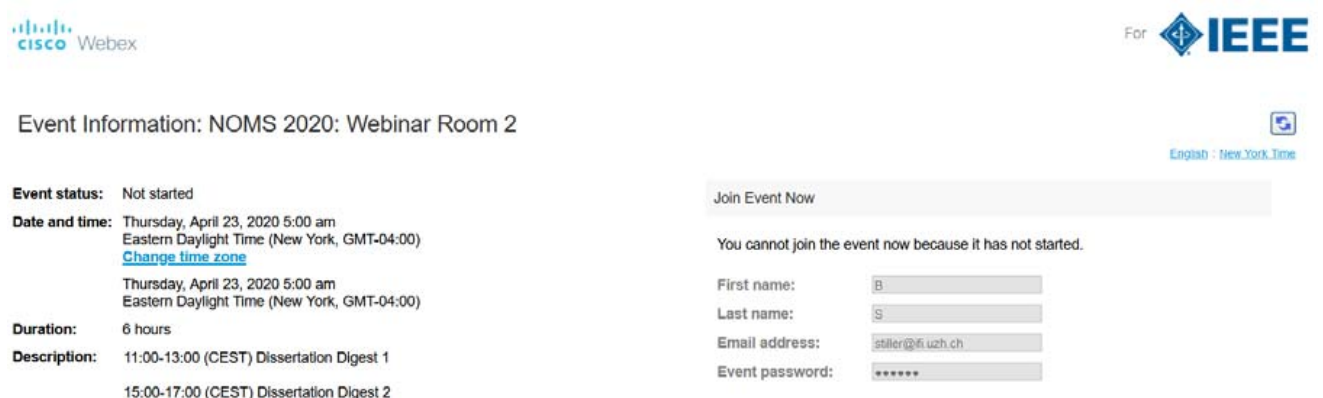
1. Enter the password upon request after clicking on the Web link and you will see:



2. Go to the Webinar Room you need, here it is *Webinar RM 2* for the Dissertation Digest sessions, by clicking on the top line of tabs shown



3. Click on the *Join the Sessions* button



4. Enter your full first and last name on the Web page being opened (which determines your identity to the session chair and all attendees)
5. Enter on that Web page the password given on the Web page you just had visited (which was shown the screen shot at step 2 above) and click the *Join Now* button.

Join Event Now

You cannot join the event now because it has not started.

First name:
Last name:
Email address:
Event password:

☒ Remember me on this computer
[\(Clear my information\)](#)

 Join by browser **NEW!**

6. You are asked to download and install the IEEE Webex client, which you shall do well before the session you are presenting in will start.

You should already **try all of that with the Practice Webinar Room** on Monday April 20, 2020 at <https://noms2020.ieee-noms.org/day-1-april-20-virtual-conference> by selecting for that day the 9:00-17:00 (CEST): *Practice Webinar Room + Information Desk* or at any other day, where the Practice Webinar Room will be open with a slightly different timing each.

Please be in your session's room 10 min before the session will start! Thank you.

Program at a Glance

Monday

	4. 20	4. 20	4. 20	4. 20	4. 20	4. 20
Room	Webinar Room 1	Webinar Room 2	Webinar Room 3	Webinar Room 4	Webinar Room 5	Webinar Room 6
09:00-11:00 (CEST)	ANNet WS 9:45 - 16:00 (CEST)		ITCVT WS 9:30 - 15:10 (CEST)	MC 1: SDN and NFV - Management Architectures, Design & Orchestration	MC 3: Industry 14.0 / NOM - Monitoring & 14.0	T2: Edge/Fog Computing and Networking: Architecture, Management, and Security 9:00 - 12:30 (CEST)
11:00-12:00 (CEST)				Lunch Break		
12:00-13:00 (CEST)				MC 2: SDN and NFV - Resource & Slice Management	MC 4: Network Operations, Management Approaches & Techniques	
13:00-14:00 (CEST)		Manag. of Industry 4.0 WS 13:30 - 17:00 (CEST)				T1: Blockchains in the Age of Softwareization – Hands-on Experiences with Programming Smart Contracts and Their Security Pitfalls 13:30 - 17:00 (CEST)
14:00-15:00 (CEST)						
15:00-16:00 (CEST)						
16:00-17:00 (CEST)						

Tuesday

	4. 21	4. 21	4. 21	4. 21	4. 21	4. 21	
Room	Webinar Room 1	Webinar Room 2	Webinar Room 3	Webinar Room 4	Webinar Room 5	Practice Webinar Room	
11:00-13:00 (CEST)	TS 9: Management of Functional Areas - Management Processes	TS 1: Service Management - Cloud Management	TS 4: AI & ML Techniques for Service Management	TS 7: SDN and NFV - Programming Networks	ES 1: Network Operations and Management	Practice Webinar Room & Information Desk	
13:00-14:00 (CEST)	Webinar Room 6 & 7 Lunch Break / Poster 1		Demo Webinar Room Demo 1				
14:00-15:15 (CEST)	Webinar Room 8 Opening Ceremony and Keynote 1: OLIVIER FESTOR						
15:15-15:30 (CEST)	Coffee Break						
15:30-17:30 (CEST)		TS 2: Service Management - Security Management	TS 5: AI & ML Techniques for Network Management	TS 8: SDN and NFV - Resource Management			
17:30-18:30 (CEST)	Webinar Room 6 & 7 Poster 2		Demo Webinar Room Demo 1				
18:30-19:30 (CEST)					CNOM/NIP WG6.6 meeting 18:00 - 19:30 (CEST)		

Wednesday

	4. 22	4. 22	4. 22	4. 22	4. 22	4. 22	
Room	Webinar Room 1	Webinar Room 2	Webinar Room 3	Webinar Room 4	Webinar Room 5	Practice Webinar Room	
11:00-13:00 (CEST)	TS 3: Service Management - Service-Management Techniques	TS 10: Smart Verticals and Industry 4.0-Management of Smart Systems	TS 12: Network Operations and Management-Monitoring & Security Techniques	TS 14: SDN and NFV -Management Reliability	ES 2: Monitoring and Security	Practice Webinar Room & Information Desk	
13:00-14:00 (CEST)	Webinar Room 6 & 7 Lunch Break / Poster 3		Demo Webinar Room Demo 2				
14:00-14:45 (CEST)	Webinar Room 8 Keynote 2: ROBERT SZABO						
14:45-15:30 (CEST)	Networking Break						
15:30-15:45 (CEST)	Coffee Break						
15:45-17:45 (CEST)	TS 6: AI & ML Techniques - Cognitive Network Techniques	TS 11: Smart Verticals and Industry 4.0-Blockchain Management	TS 13: Network Operations and Management-Performance Management	TS 15: SDN and NFV - Security	Panel: Big Data Analytics for System Management		
17:45-18:45 (CEST)	Webinar Room 6 & 7 Poster 4		Demo Webinar Room Demo 2				

Thursday

	4. 23.	4. 23.	4. 23.	4. 23.	4. 23.
Room	Webinar Room 1	Webinar Room 2	Webinar Room 3	Webinar Room 4	Practice Webinar Room
11:00-12:00 (CEST)		Ph 1: Security Management	TS 16: Management Approaches - Management Operation Techniques	TS 19: SDN and NFV - Control Plane Techniques	Practice Webinar Room & Information Desk
12:00-13:00 (CEST)			TS 17: Operational Experience - Management Integrity (Part 1)		
13:00-14:00 (CEST)	Webinar Room 1 & 5 Lunch Break / Poster 5		Demo Webinar Room Demo 3		
14:00-14:45 (CEST)	Webinar Room 6 Keynote 3: MARCUS BRUNNER				
14:45-15:00 (CEST)	Coffee Break				
15:00-17:00 (CEST)	Demo Webinar Room Demo 3	Ph 2: Wireless Management	TS 18: Operational Experience - Management Integrity (Part 2)	TS 20: SDN and NFV - Configuration Management	
17:00-18:00 (CEST)	Webinar Room 7 Distinguished Expert Panel + Closing Ceremony				

Friday

	4. 24	4. 24	4. 24	4. 24	4. 24
Room	Webinar Room 1	Webinar Room 2	Webinar Room 3	Webinar Room 4	Practice Webinar Room
08:00 - 9:00 (CEST)		O4SDI WS 8:30 - 12:00 (CEST)	MC 5: AI & ML Techniques for Network Management		Practice Webinar Room & Information Desk
09:00-11:00 (CEST)	DISSECT WS 09:00 - 12:00 (CEST)				
11:00-12:00 (CEST)			Lunch Break		
12:00-14:00 (CEST)	GraSec WS 12:00 - 14:30 (CEST)		MC 6: AI & ML Techniques for Security		
14:00-14:15 (CEST)			Coffee Break	T3: Reliable measurements with BGP and RPKI 13:30 - 17:00 (CEST)	
14:15-16:15 (CEST)			MC 7: Network Operations, Management - Security Management		
16:15-17:00 (CEST)					

Notations	WS: Workshop	TS: Technical Session
	MC: Mini-conference	ES: Experienced Session
	T: Tutorial	Ph: PhD Dissertation Digest

Keynotes

Keynote 1: Micro-servicing NDN to Improve Security, Scalability and Integration

Olivier Festor, Tuesday, April 21, 2020, 14:00-15:15 (Webinar Room 8)



Biography: Olivier Festor is Professor in Computer Science at the University of Lorraine and Director of TELECOM Nancy, the Graduate School in Computer Science and Engineering. He is active for more than 25 years in the Network and Service Management scientific community. His research interest are in Network Security, Monitoring, Programming and Configuration, domain in which he published more than 150 papers in the major conferences and journals in the field. Olivier was awarded the IEEE COMSOC Network Operations & Management Technical Committee “Dan Stokesberry award” in 2019.

Keynote 2: Service Orchestration - Service Instance Design and Assign Automation: Challenges and Opportunities

Róbert Szabó, Wednesday, 22 April 2020, 14:00-14:45 (Webinar Room 8)



Biography: Róbert Szabó, PhD, is a principal researcher at Ericsson Research, Hungary. At Ericsson, he was the technical coordinator of the EU-FP7 integrated project: Unifying Cloud and Carrier Networks (UNIFY) /2013-2016/ and he was the project coordinator of the H2020 5G-PPP 5G Exchange (5GEx) innovation action /2015-2018/. He was the president of the Telecommunications Section of the Scientific Association for Infocommunications (HTE), Hungary /2005-2007/. He was the deputy head of the Dept. of Telecommunications and Media Informatics (TMIT), Budapest University of Technology and Economics (BME) /2008-2010/. He was the head of the High Speed Networking Lab (HSNLab), at BME /2007-2012/. His researches were supported by the János Bolyai Scholarship of the Hungarian Academy of Science (MTA). He was a member of the Future Internet Award jury /2010-2013/. He is co-author of over 80 publications. He supervised the work of 4 graduated PhD students. Currently, he works in the research area of Cloud Systems and Platforms in topics: Network Function Virtualization, cloud native transformation and zero touch automation.

Keynote 3: Why Automation Is Hard and the Need for New Approaches (Webinar Room 6)

Marcus Brunner, Thursday, 23 April 2020, 14:00-14:45



Biography: Dr. Marcus Brunner is the Head of Standardization/Open Source, Eco-system Development and Chief Researcher at Swisscom. He has been active in research, development, and standardization for 25 years with detailed experience in programmability of networks and services, cloud technology for IT and network service providers (NfV), and automation of network and IT including autonomic communication. He is involved in various international organizations on software-defined networking and the future telecommunication technologies like Network Function Virtualization and 5G networking. He is currently chair of the Network Operator Council (NOC) in ETSI ISG NFV.

Abstract: The NOMS community is working on all sorts of automation topics for years, but the level of achievement is relatively limited. The question, I am going to touch are: Why is this the case, what can be done differently, are we on the wrong track? What is needed to get it done? I will give a bit of a holistic view and issues at the different places.

Distinguished Experts Panel

Management in the Age of Softwarization, Artificial Intelligence, and Cybersecurity

Moderator: Rolf Stadler, KTH, Sweden – Thursday, 23 April 2020, 17:00-18:00 (Webinar Room 7)

The panel will focus on the underlying theme of the conference. It will discuss softwarization, AI and security aspects in the context of engineering and operating networks and networked systems.

- Raouf Boutaba, University of Waterloo, Canada
- Marcus Brunner, Swisscomm, Switzerland
- Olivier Festor, TELECOM Nancy, France
- Juergen Schoenwaelder, Jacobs University, Germany
- Robert Szabo, Ericsson, Hungary
- Dave Ward, Cisco Systems, San Jose, USA



Rolf Stadler (moderator) is a professor at KTH Royal Institute of Technology in Stockholm, Sweden, and head of the Division of Network and Systems Engineering. He holds an M.Sc. degree in mathematics and a Ph.D. in computer science from the University of Zurich. Before joining KTH in 2001, he held positions at the IBM Zurich Research Laboratory, Columbia University, and ETH Zürich. His group made contributions to real-time monitoring, resource management, and automation for large-scale networked systems. His current interests include intelligent monitoring techniques and data-driven methods for network engineering and management. Rolf Stadler has been Editor-in-Chief of IEEE Transactions on Network and Service Management (TNSM) 2014-2017.



Raouf Boutaba is a University Chair Professor of Computer Science and Associate Dean Research of the faculty of Mathematics at the University of Waterloo. He also holds an INRIA International Chair in France. He is the founding Editor in Chief of the IEEE Transactions on Network and Service Management (2007-2010), and the current Editor-in-Chief of the IEEE Journal on Selected Areas in Communications. He served as the general or technical program chair for a number of international conferences including IM, NOMS and CNSM. His research interests are in the areas of network and service management. He has published extensively in these areas and received several journal and conference Best Paper Awards such as the IEEE 2008 Fred W. Ellersick Prize Paper Award. He also received other recognitions, including the Premier's Research Excellence Award, Industry research excellence Awards, fellowships of the Faculty of Mathematics, of the David R. Cheriton School of Computer Science and several outstanding performance awards at the University of Waterloo. He has also received the IEEE Communications Society Hal Sobol Award and the IFIP Silver Core in 2007, the IEEE Communications Society Joe LociCero and the Dan Stokesbury awards in 2009, the Salah Aidarous award in 2012, the IEEE Canada McNaughton Gold Medal in 2014, the Technical Achievement Award of the IEEE Technical Committee on Information Infrastructure and Networking as well as the Donald W. McLellan Meritorious Service Award in 2016. He served as a distinguished lecturer for the IEEE Computer and Communications Societies. He is fellow of the IEEE, a fellow of the Engineering Institute of Canada and a fellow of the Canadian Academy of Engineering.



Dr. Marcus Brunner is the Head of Standardization/Open Source, Eco-system Development and Chief Researcher at Swisscom. He has been active in research, development, and standardization for 25 years with detailed experience in programmability of networks and services, cloud technology for IT and network service providers (NfV), and automation of network and IT including autonomic communication. He is involved in various international organizations on software-defined networking and the future telecommunication technologies like Network Function Virtualization and 5G networking. He is currently chair of the Network Operator Council (NOC) in ETSI ISG NFV.



Olivier Festor is Professor in Computer Science at the University of Lorraine and Director of TELECOM Nancy, the Graduate School in Computer Science and Engineering. He is active for more than 25 years in the Network and Service Management scientific community. His research interest are in Network Security, Monitoring, Programming and Configuration, domain in which he published more than 150 papers in the major conferences and journals in the field. Olivier was awarded the IEEE COMSOC Network Operations & Management Technical Committee "Dan Stokesberry award" in 2019.



Jürgen Schönwälder is professor of computer science and leading the Computer Networks and Distributed Systems research group at Jacobs University Bremen. He received his doctoral degree in 1996 from the Technical University Braunschweig, Germany. His research interests include network management and measurement, network and system security, embedded systems, and distributed systems.

Jürgen Schönwälder is an active member of the Internet Engineering Task Force (IETF). He has co-authored more than 40 network management related specifications and standards. He co-chaired the NETMOD and ISMS working groups of the IETF and the NMRG research group of the Internet Research Task Force (IRTF). He has been principal investigator in several European research projects (Emanics, Flamingo, Leone, Concordia).

Jürgen Schönwälder contributed in various roles to IEEE and IFIP sponsored conferences. He serves on the editorial boards of the IEEE Transactions on Network and Service Management, the Springer Journal of Network and Systems Management and the Wiley International Journal of Network Management. He is co-editor of the Network and Service Management series of the IEEE Communications Magazine.



Róbert Szabó, PhD, is a principal researcher at Ericsson Research, Hungary. At Ericsson, he was the technical coordinator of the EU-FP7 integrated project: Unifying Cloud and Carrier Networks (UNIFY) /2013-2016/ and he was the project coordinator of the H2020 5G-PPP 5G Exchange (5GEx) innovation action /2015-2018/. He was the president of the Telecommunications Section of the Scientific Association for Infocommunications (HTE), Hungary /2005-2007/. He was the deputy head of the Dept. of Telecommunications and Media Informatics (TMIT), Budapest University of Technology and Economics (BME) /2008-2010/. He was the head of the High Speed Networking Lab (HSNLab), at BME /2007-2012/. His researches were supported by the János Bolyai Scholarship of the Hungarian Academy of Science (MTA). He was a member of the Future Internet Award jury /2010- 2013/. He is co-author of over 80 publications. He supervised the work of 4 graduated PhD students. Currently, he works in the research area of Cloud Systems and Platforms in topics: Network Function Virtualization, cloud native transformation and zero touch automation.



Dave Ward is Chief Technology Officer of Engineering, Chief Architect and a Senior Vice President at Cisco's Networking and Security Business, driving innovations across Cisco's platform, product and solution portfolio. As head of Cisco's Chief Technology and Architecture Office, Dave leads Cisco's core innovation programs, unifying and advancing strategic co-innovation partnerships and programs with internal business units and external customers, partners, government, developers, academia, standards and open-source groups. These co-innovation programs continuously reinvent and enhance the capabilities of the Internet by creating new offerings and technologies inside and outside Cisco's traditional product portfolio. He and his engineering teams have built numerous hardware and software products, including cloud networking and security products, 5G Cloud Networking, and IoT-based solutions for smart cities, healthcare, media and entertainment. Dave also leads architectural governance, technology strategy and development, and university research.

A network architecture leader recognized for advancing the capabilities of the Internet the past two and a half decades, Dave joined Cisco in 1999 when the company acquired the Internet Engineering Group. He was also a Juniper Fellow working on the operating system and next-generation routing systems, including ASICs, Optics, and network APIs and SDN. Dave holds hundreds of patents. His pioneering advances and industry leadership around Software Defined Networks (SDN), Cloud Networking, and Network Function Virtualization has led to the formation and progress of numerous open-source, networking, and standards organizations. For example, he has been the Routing Area Director at the Internet Engineering Task Force and Chair of four of its Working Groups: IS-IS, HIP, BFD and Softwires. He has also worked with the ITU-IT, and several Open Source consortia, as well as serves on the Boards of the Alliance for Telecommunications Industry Solutions, Advanced Imaging Society, Linux Foundation Network, ITU Telecommunication Standardization Sector, Open Networking Foundation, Connected Conservation Foundation, and Wild Animal Technology Systems.

An avid outdoorsman and community participant, Dave leads Cisco's wildlife protection initiatives, and is a co-captain in his local volunteer fire department. He also has a small vineyard in the Santa Cruz, California mountains and an heirloom tomato farm along the St. Croix River in Somerset, Wisconsin. Dave graduated from Syracuse University, and earned graduate degrees from the University of Minnesota.

Panel

Big Data Analytics for System Management

Moderator: Hanan Lutfiyya, University of Western Ontario, Canada – Wednesday, 22 April 2020, 15:45-17:45 (Webinar Room 5)

The adoption of emerging technologies such as IoT and 5G has the potential to enable new applications. These technologies will enable a hyperconnected world with many objects that have the capability to sense the surrounding environment, transmit information, provide feedback or trigger an action. The objects may enter/leave the network dynamically. The infrastructure required to support applications in a hyperconnected world needs distributed computing that includes cloud data centers and fog computing nodes in order to allow for real-time response and distributed load. Managing applications are challenging since management systems typically do not have the ability to monitor across multiple cloud data centers, networks and fog nodes and application components may run on computing resources owned by different companies. Artificial Intelligence (AI) is expected to have an important role but there are new challenges. This panel will focus on challenges on the integration of AI. Some of the questions that will be discussed during panel include the following:

Management requires measurements across a large-scale distributed infrastructure. How does multiple providers and heterogeneity of monitoring tools impact the collection and dissemination of monitoring data in a distributed environment? What approaches can be used? What are the trust/reputation challenges associated with a high dynamic systems? Does existing work need to be revisited? Centralized AI schemes can be challenging due to privacy and limited bandwidth and energy for transmitting all the data to a cloud server. What are the strengths and limitations of state of the art distributed machine learning techniques? Can local AI models for a specific component be used for global machine learning? How do we compare alternatives approaches?



Hanan Lutfiyya is a Professor and Chair of the Department of Computer Science at the University of Western Ontario. She received the UWO Faculty Scholar Award in 2006. Her research interests include Internet of Things, software engineering, self-adaptive and self-managing systems, autonomic computing, monitoring and diagnostics, mobile systems, policies, and clouds. Her research group in collaboration with industrial and government partners investigates different aspects of reliable software and systems. She has developed innovative approaches to self-managing systems based on policy-based approaches.

Professor Lutfiyya is a past member of the Natural Science and Engineering Research Council of Canada (NSERC) Discovery Grant Committee, NSERC Strategic Network Committee, and a past member and Chair of an NSERC Strategic Grants Committee. She was a member of the Computer Science Accreditation Council (CSAC). She is a past Executive Director, Ontario Consortium for Graduate Education in Software Engineering (CONGESE) program and is currently co-director of a Vector Institute approved collaborative AI program offered jointly with the Department of Electrical and Computer Engineering.

She has received funding from Ontario Research Fund (ORF), NSERC, IBM, Samsung, Fujitsu and Canada's Communications Research Centre (CRC). Professor Lutfiyya is currently an associate editor for the IEEE Transactions on Network and Service Management and the Journal of Network and Systems Management, and has recently served as program co-chair of IEEE/IFIP Network Operations and Management Symposium and the IEEE International Conference on Network and Service Management (CNSM). She recently was on the steering committee for the Ontario Celebration of Women in Computing Conference and hosted the conference in London. She has served on program committees of numerous conferences and workshops, on the editorial board of invited journal issues and books, and as session chair at many conferences.



Dr. Anwar Haque, Department of Computer Science, Western University

Dr. Anwar Haque is an Assistant Professor in the Dept. of Computer Science at the University of Western Ontario, Canada. Dr. Haque received his Ph.D. and Master's degrees in Electrical & Computer Engineering, and Computer Science, respectively, from the University of Waterloo, Canada. Dr. Haque's primary research areas of interest include wireless/wireline networks resources and performance management/optimization, and network security focusing on smart services and applications. Prior joining to Western, he spent fifteen years of his career in Canadian Telco industry (Bell Canada) in various technical and leadership roles. He is one of the master planners of Bell's nationwide state-of-the-art IP MPLS core networks that is recognized as Canada's most advanced and largest IP core footprint. He has been awarded a number of national / provincial level research grants including NSERC, MITACS, and OCE. Dr. Haque authored/co-authored many peer reviewed research publications in leading journals and conferences, authored numerous industry technical papers, and held number of patent/licenses. He has served as reviewer for major journals, journal guest editor, conference session chair, conference patron co-chair, industry relations chair, workshop chair, conference TPC member, major grants reviewer, and invited guest speaker at various industry-academia forum/conferences. Dr. Haque is also appointed as an Industry Expert in Residence at Western where he manages a major industry-academia research partnership program between Western and Canadian ICT industry.



Marc-Oliver Pahl, Ph.D., IMT Atlantique and TU München, Germany (Expert IoT Security and IoT Middleware)

Research director at the Institute Mines Télécom (IMT) Atlantique, Rennes campus, France. He is the chair holder and research director of the industrial chair “Cyber CNI” (<https://www.chairecyber-cni.org/>) that focuses on Cybersecurity for industrial applications with currently 12 PhD students and PostDocs. He is the co-director of the UMR LAB-STICC/IRIS (14 professor positions; 1 research position; 1 technician; 11 post-docs; 22 PhDs; 3 external associated researchers). Marc-Oliver also heads the IoT smart space team (<https://s2labs.org/>) at Technical University of Munich (TUM), Germany, with currently 4 PhD students and more than 150 Master and Bachelor students in the past 11 years. He is digital teaching director of the German-French Academy for the industry of the future (GFA). Marc-Oliver is the scientific vice president of the German chapter of the Association for Computing Machinery (ACM). He is also the faculty sponsor of the ACM student chapter Munich. He continuously co-organizes major conferences especially in the network management domain. He is the co-founder and director of the annual Future-IoT summer school series (<https://future-iot.org/>).

Marc-Oliver does Internet of Things (IoT) research since 2008 with a focus on data and service management in edge or local installations. His focus is on security, usability, reliability and resilience. Typical research methodologies include autonomous management, modularization, security-by-design, and data and service modeling. His commonly applied tools include system design and evaluation, machine learning, and distributed ledgers.

In the past, Marc-Oliver coordinated research projects on all levels from more than 20 international partner EU projects to local bilateral industry collaborations. He held most positions in major scientific conferences. His primary research community is the networks and service management community. He is a continuous member of the Technical Program Committee (TPC) of several major conferences, and reviews for several major journals. He is associate editor of the International Journal of Network Management (IJNM, Wiley).

Marc-Oliver is continuously teaching at university level since 2003. He holds multiple teaching prizes. He supervised more than 150 individual students and several thousands in classroom courses. His biggest teaching project is the iLab series that teaches how distributed networked systems work starting from the Internet going towards novel concepts such as Information Centric Networks and specialization domains such as the Internet of Things. More teaching projects such as the Massive Open Online Course (MOOC) “iLabX – The Internet Masterclass” (<https://ilabx.ilabxp.com/>), or the summer school series on “Future Internet of Things” can be found on <https://future-iot.org/>.

Tutorials

Edge/Fog Computing and Networking: Architecture, Management, and Security

Hung-Yu Wei – Monday, 20 April 2020, 09:00-12:30 (Webinar Room 6)

Abstract: The IoT and other paradigms (e.g., “5G and Beyond” Wireless) depend upon low latency interaction between devices at the network edge and the cloud at centralized data centers. However, the potentially huge amount of data resulting from edge devices may make it impractical to directly communicate with the cloud. To significantly expand the usefulness of IoT and other demanding applications, the Fog/Edge paradigm provides the intermediate computing, communications, storage and processing capabilities needed between the cloud and its edge devices, i.e., Fog/Edge bridges the “Cloud-to-Thing” continuum. Highlighting the importance to industry, this tutorial will cover the following topics:

- Introduction and background on basic edge/fog principles, including relationship to edge and cloud computing
- Use cases where edge/fog is needed for desired functionalities and performance, e.g., autonomous cars, energy management, robotics, industrial IoT
- Fog and edge reference architectures and road maps
- Key organizations or consortia working on implementation agreements and standards for both fog and edge computing
- Published and draft standards (e.g. IEEE P1934, IIC/OpenFog, ETSI MEC)
- Management and orchestration of edge/fog systems
- Security and trust in edge/fog systems

Biography: Hung-Yu Wei is a Professor in Department of Electrical Engineering and Graduate Institute of Communications Engineering, National Taiwan University. He received the B.S. degree in electrical engineering from National Taiwan University in 1999. He received the M.S. and the Ph.D. degree in electrical engineering from Columbia University in 2001 and 2005 respectively. He was a summer intern at Telcordia Applied Research in 2000 and 2001. He was with NEC Labs America from 2003 to 2005. He joined Department of Electrical Engineering at the National Taiwan University in July 2005. His research interests include next-generation wireless broadband networks, mobility management in mobile Internet, IoT, vehicular networking, fog computing, cross-layer design and optimization in wireless multimedia communications, and game theoretical models for communications networks. He received NTU Excellent Teaching Award in 2008 and 2018. He also received “Recruiting Outstanding Young Scholar Award” from the Foundation for the Advancement of Outstanding Scholarship in 2006, K. T. Li Young Researcher Award from ACM Taipei/Taiwan Chapter and The Institute of Information and Computing Machinery in 2012, Ministry of Science and Technology Research Project for Excellent Young Scholars in 2014, Excellent Young Engineer Award from the Chinese Institute of Electrical Engineering in 2014, and Wu Ta You Memorial Award from MOST in 2015. He was a consulting member of Acts and Regulation Committee of National Communications Commission during 2008-2009. He served as a division director in NTU Computer and Information Networking Center during 2016-2017. He has been actively participating in NGMN, IEEE 802.16, 3GPP, IEEE P1934 standardization, and was a voting member of the IEEE 802.16 working group. He serves as Vice Chair

of IEEE P1934 Working Group to standardize fog computing and networking architecture. He also serves as an Associate Editor for IEEE IoT journal. He is an IEEE certified Wireless Communications Professional. He was the Chair of IEEE VTS Taipei Chapter during 2016-2017. He is currently the Chair of IEEE P1935 working group for edge/fog management and orchestration. He serves as Secretary for IEEE ComSoc Fog/Edge Industry Community.

Blockchains in the Age of Softwarization – Hands-on Experiences with Programming Smart Contracts and Their Security Pitfalls

Bruno Rodrigues, Eder Scheid, Burkhard Stiller – Monday, 20 April 2020, 13:30-17:00 (Webinar Room 6)

Abstract: The age of Softwarization is characterized as an era in which telecommunication providers, hardware vendors, and software companies seek for an increasing product functionality while coping with the optimization of related hardware-software interactions. Thus, the decentralization of certain information elements, as well as an integration of potentially non-trusted stakeholders provides a dedicated path to follow, while exploiting the characteristics of decentralized Blockchains (BC). Thus, BCs themselves and Smart Contracts (SC) – the central element of BC-based applications, here for implementing information management logics within an (a) application domain, (b) a network management domain, or (c) a system's security domain – offer a transparent and immutable platform within a fully softwarized setting. However, since a variety of different notions of a BC exist, the real and public BC vs. the private BC – better termed to be a Distributed Ledger (DL) – all these are based on very different trust assumptions. Thus, application-specific requirements will lead to preferring one technical solution over the other. Nevertheless of this BC type to be differentiated, the language and compilers – on which SCs rely on – are still in their infancy compared to highly consolidated programming languages, such as C or Java. Thus, the SC security becomes a vital element for all actors interacting with BC-based applications, both (a) from the viewpoint of platform-relevant blockchain vulnerabilities and (b) the application logic itself, which that can be exploited by malicious users. Thus, this tutorial is based specifically on the Ethereum platform and Solidity contracts, to demonstrate theoretically and practically main common vulnerabilities and SC development mistakes. In this regard, the course provides a theoretical basis at first in which key BC and SC elements are introduced, as well as key vulnerabilities are explained. Following, the course provides – based on a cluster of 20 Raspberry Pi devices – the experimental environment so the attendees can practically analyze a selection of these vulnerabilities in a permissioned blockchain with nodes accessible from a browser. Thus, the practical part only requires the audience to work on its own laptop with a standard browser to connect to the cluster and execute the respective tutorial commands and perform the guided exercises. Subsequently to completing those, the tutorial concludes by highlighting the development principles for SCs in order to avoid common mistakes and unacceptable trends in SC development.

Biographies:

- Bruno Rodrigues is a Junior Researcher currently pursuing his Ph.D. degree at the University of Zurich UZH under the supervision of Prof. Dr. Burkhard Stiller. He received his M.Sc. from the Polytechnic School of University of São Paulo in 2016, where he was Teaching Assistant (TA) of the under graduate "Introduction to Computer Networks" course and an instructor of "Practical Introductory SDN" courses. At the UZH, Bruno is TA of the "Communication Systems Laboratory" and participates as an instructor in the Swiss "Certificate for Advanced Studies (CAS) on Blockchains" and "CAS on Big Data and Machine Learning" focusing on blockchains in general and practical hands-on on Blockchains, Smart Contracts, and Clouds.
- Eder Scheid is a Junior Researcher pursuing his Ph.D. under the supervision of Prof. Dr. Burkhard Stiller at the University of Zurich UZH. He is also a teaching assistant at the Communication Systems Group CSG since December 2017. Eder holds an M.Sc. degree in Computer Science from the Federal University of the Rio Grande do Sul (UFRGS), which he obtained in 2017 under the supervision of Prof. Dr. Lisandro Zambenedetti Granville. His master's thesis was entitled "INSPIRE: an Integrated NFV-based Intent Refinement Environment". Eder is one of the teaching assistants of the "Blockchains and Overlay Networks"

class for M.Sc. students at UZH. Also, in 2018 and 2019 he served as an instructor on the “Certificate for Advanced Studies (CAS) on Blockchains” class and the “CAS on Big Data and Machine Learning” focusing on blockchains in general and practical hands-on on Blockchains, Smart Contracts, and Clouds.

- Prof. Dr. Burkhard Stiller received the Informatik-Diplom (M.Sc.) degree in Computer Science and the Dr. rer.-nat. (Ph.D.) degree from the University of Karlsruhe, Germany, in 1990 and 1994, respectively. In his research career he was with the Computer Lab, University of Cambridge, U.K (1994-1995), ETH Zürich, Switzerland (1995-2004), and the University of Federal Armed Forces Munich, Germany (2002-2004). Since 2004 he chairs the Communication Systems Group CSG, Department of Informatics IfI, University of Zürich UZH, Switzerland. Besides being a member of the editorial board of the IEEE Transactions on Network and Service Management, Springer’s Journal of Network and Systems Management, and the KICS’ Journal of Communications and Networks, Burkhard is as well Editor-in-Chief of Elsevier’s Computer Networks journal. His main research interests are published in well over 300 research papers and include systems with a fully decentralized control (blockchains, clouds, peer-to-peer), network and service management (economic management), Internet-of-Things (security of constrained devices, LoRa), and telecommunication economics (charging and accounting).

Reliable measurements with BGP and RPKI

Mattijs Jonker, Nils Rodday – Monday, 24 April 2020, 13:30-17:00 (Webinar Room 4)

Abstract: The proposed tutorial will be an in-depth hands-on tutorial that is going to cover state-of-the-art Internet measurement and analysis techniques for BGP and RPKI. In terms of data, we will jointly analyze (public) BGP data and other Internet measurement data such as DNS and geolocation data. For our analyses, we will use tools such as CAIDA’s BGPStream and Apache Spark. We will focus on recent research that is improving the identification of Route Origin Validation (ROV) enforcing Autonomous Systems and the participants will learn how to use BGPStream towards the same goal.

BGP measurements continue to be a crucial area of research within the measurement community as BGP Hijacks as well as Route Leaks are increasing. One of the solutions, Resource Public Key Infrastructure (RPKI), is actively deployed by operators to thwart such dangers. It provides a mechanism to cryptographically bind an AS number to a prefix, allowing every AS on the Internet to check whether the origin of that prefix is indeed allowed to announce it. An easy way to measure RPKI adoption is to look at Route Origin Authorization (ROA) objects that are being published for the announced BGP prefixes. However, this does not display the actual adoption of Autonomous Systems using RPKI to actively filter invalid routes. We will therefore also look at how ROV-enforcing Autonomous Systems can be measured. This involves controlled experiments using the PEERING testbed and a certificate authority to sign ROAs.

Participants will learn how to process readily available public BGP data using BGPStream, which biases and pitfalls to watch out for when analysing BGP data, and how the RPKI helps in fighting BGP hijacking and route leaks. The tutorial will mostly be a hands-on tutorial in order to maximize the takeaway for the participants.

The tutorial is split in two parts. Both topics are going to be introduced in a short, classical lecture format in the beginning. Afterwards there is going to be a hands-on session for the participants for each block. One virtual machine per person will be provided in the beginning of the course to be run on the workstations of the participants. As data consumption for BGP measurements can be quite challenging for the network, we will be working with prefetched data that participants can read from their BGPStream interface, effectively mimicking an online behaviour.

Biographies:

- Mattijs Jonker earned his PhD cum laude at the University of Twente, where he is now a postdoc. He has successfully used tools such as BGPStream and Spark for his measurement-based research efforts, which resulted in various IMC papers over the past years. Mattijs also works on the award-winning OpenINTEL project, which measures 65

- Nils Rodday is currently a PhD student at the Bundeswehr University Munich and the University of Twente after returning from the industry where he has been working as an IT-Security Consultant for IBM Security. He has taught several classes throughout the past years, including Introduction to Networking in fall 2017/2018/2019, Advanced Networking in spring 2018, and Cyber-Security in spring 2019. Moreover, he has been speaker at several scientific as well as industry related conferences (BlackHat / RSA Conference).

Main Program (Technical and Miniconference Sessions)

NOMS 2020 Technical Sessions

Tuesday, April 21, 2020

11:00 - 13:00	Management Processes Chair: Stefano Secci	Webinar Room 1
Learning a Configurable Deployment Descriptors Model in NFV <i>Wassim Sellil Atoui (Orange Labs), Nour Assy (Lebanese International University), Walid Gaaloul (Télécom SudParis), Imen Grida ben yahia (Orange labs)</i>		
Value of Information based Optimal Service Fabric Management for Fog Computing <i>Filippo Poltronieri (University of Ferrara), Mauro Tortonési (University of Ferrara), Cesare Stefanelli (University of Ferrara), Alessandro Morelli (Florida Institute for Human and Machine Cognition (IHMC)), Niranjani Suri (Florida Institute for Human & Machine Cognition)</i>		
Online Monitoring of TCP Throughput Limitations <i>Simon Bauer (Technical University of Munich), Kilian Holzinger (Technische Universität München), Benedikt Jaeger (Technical University of Munich), Paul Emmerich (Technical University of Munich), Georg Carle (Technical University of Munich)</i>		
A Process Mining Approach for Supporting IoT Predictive Security <i>Adrien Hemmer (National Institute for Research in Computer Science and Automation (Inria)), Remi Badonnel (INRIA - TELECOM Nancy - University of Lorraine), Isabelle Chrisment (TELECOM Nancy - Université de Lorraine)</i>		

11:00 - 13:00	Cloud Management Chair: Filip De Turck	Webinar Room 2
Discovering Collaboration: Unveiling Slow, Distributed Scanners based on Common Header Field Patterns <i>Harm Griffioen (Technical University of Delft), Christian Doerr (Delft University of Technology)</i>		
Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing <i>Tra Le (Kyung Hee University), Nguyen Tran (The University of Sydney), Yan Kyaw Tun (Kyung Hee University), Oanh Tran Thi Kim (Kyung Hee University), Kitae Kim (KyungHee University), Choong Seon Hong (Kyung Hee University)</i>		
A Cloud-Agnostic Framework to Enable Cost-Aware Scheduling of Applications in a Multi-Cloud Environment <i>Fan Jiang (University of North Carolina - Chapel Hill), Kyle Ferriter (North Carolina State University), Claris Castillo (Startup)</i>		
CONTRAST: Container-based Transcoding for Interactive Video Streaming <i>Sajad Sameti (University of Calgary), Mea Wang (University of Calgary), Diwakar Krishnamurthy (Univ of Calgary)</i>		
11:00 - 13:00	AI & ML Techniques for Service Management Chair: Amina Boubendir	Webinar Room 3
HGDm: Heterogeneous Graph Convolutional Networks for Malicious Domain Detection <i>Xiaoqing Sun (Tsinghua University), Jiahai Yang (Tsinghua University), Zhiliang Wang (Tsinghua university), Heng Liu (China Electronics Cyberspace Great Wall Co., Ltd, Beijing)</i>		
Paddy: An Event Log Parsing Approach with Dynamic Dictionary <i>Shaohan Huang (Beihang University), Yi Liu (Beihang University), Carol Fung (Virginia Commonwealth University), Rong He (Chinese Academy of Scientific Computer Network Information Center), Yining Zhao (Chinese Academy of Scientific Computer Network Information Center), Hailong Yang (Beihang University), Zhongzhi Luan (Beihang University)</i>		
A Novel Flow-level Session Descriptor With Application to OS and Browser Identification <i>Omar Richardson (Karlstad University), Johan Garcia (Karlstad University)</i>		
Intrusion Detection System using Semi-Supervised Learning with Adversarial Autoencoder <i>Kazuki Hara (University of tsukuba), Kohei Shiimoto (Tokyo City University)</i>		
11:00 - 13:00	Programming Networks Chair: Roberto Riggio	Webinar Room 4
P4 Switch Code Data Flow Analysis: Towards Stronger Verification of Forwarding Plane Software <i>Karine Birnfeld (UFRGS), Diogo da Silva (UFRGS), Weverton Cordeiro (UFRGS), Breno de França (UNICAMP)</i>		
PRIME: Programming In-Network Modular Extensions <i>Ricardo Parizotto (UFRGS), Lucas Castanheira (Universidade Federal do Rio Grande do Sul), Fernanda Bonetti (Federal University of Rio Grande do Sul), Anderson da Silva (Universidade Federal do Rio Grande do Sul), Alberto Schaeffer-Filho (Federal University of Rio Grande do Sul (UFRGS))</i>		
Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4 <i>Damu Ding (Fondazione Bruno Kessler (FBK) & University of Bologna), Marco Savi (Fondazione Bruno Kessler), Domenico Siracusa (Fondazione Bruno Kessler (FBK))</i>		
P4STA: High Performance Packet Timestamping with Programmable Packet Processors <i>Ralf Kundel (Technische Universität Darmstadt), Fridolin Siegmund (TU Darmstadt), Jeremias Blendin (Barefoot Networks), Amr Rizk (Uni Ulm), Boris Koldehofe (TU Darmstadt)</i>		

15:30 - 17:30	Security Management Chair: Jérôme François	Webinar Room 2
Distributed Denial of Service Attacks Detection with Autoencoder <i>Kun Yang (New York University), Junjie Zhang (Fortinet, Inc.), Yang Xu (Fudan University), Jonathan Chao (New York University)</i>		
ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning <i>Iman Akbari (University of Waterloo), Ezzeldin Tahoun (University of Waterloo), Mohammad Salahuddin (University of Waterloo), Noura Limam (University of Waterloo), Raouf Boutaba (University of Waterloo)</i>		
Automated Keyword Extraction from One-day Vulnerabilities at Disclosure <i>Clément Elbaz (Univ Rennes, Inria, CNRS, IRISA), Louis Rilling (DGA), Christine Morin (INRIA)</i>		
NFV-based IoT Security for Home Networks using MUD <i>David Hay (Hebrew University), Anat Bremler-Barr (Interdisciplinary Center Herzliya), Yehuda Afek (Tel Aviv University), Lior Shafir (Tel Aviv University), Ran Goldschmidt (IDC), Gafnit Avraham (IDC), Avraham Shalev (IDC)</i>		
15:30 - 17:30	AI & ML Techniques for Network Management Chair: Martin Husak	Webinar Room 3
Physical Layer Anomaly Detection Mechanisms in IoT Networks <i>Pedro Martins (University of Aveiro), Andre Braga Reis (Instituto de Telecomunicações), Paulo Salvador (University of Aveiro, Institute of Telecommunications), Susana Sargento (Universidade de Aveiro)</i>		
IoT or Not: Identifying IoT Devices in a Short TimeScale <i>Anat Bremler-Barr (Interdisciplinary Center Herzliya), Haim Levy (IDC), Zoar Yakhini (IDC)</i>		
Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service <i>Jawwad Ahmed (Ericsson Research), Amadeu Nascimento Junior (Ericsson Research), Caner Kilinc (Ericsson AI), Jörgen Gustafsson (Ericsson Research), Dan Pan (Telenor Sverige AB), Jaume Rius i Riu (Telenor Sverige AB)</i>		
aiOS: An Intelligence Layer for SD-WLANs <i>Estefania Coronado (Fondazione Bruno Kessler), Abin Thomas (Fondazione Bruno Kessler), Suzan Bayhan (University of Twente), Roberto Riggio (Fondazione Bruno Kessler)</i>		
15:30 - 17:30	Resource Management Chair: Csaba Simon	Webinar Room 4
Network Service Embedding with Multiple Resource Dimensions <i>Angelos Pentelas (University of Macedonia), George Papathanail (University of Macedonia), Ioakeim Fotoglou (University of Macedonia), Panagiotis Papadimitriou (University of Macedonia)</i>		
Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing <i>Hantao Guo (Beijing University of Posts and Telecommunications), Ying Wang (Beijing University of Posts and Telecommunications), Zi fan Li (Beijing University of Posts and Telecommunications), Xue-song Qiu (Beijing University of Posts and Telecommunications), Hengbin An (Beijing University of Posts and Telecommunications), Peng Yu (Beijing University of Posts and Telecommunications), Ningcheng Yuan (Beijing University of Posts and Telecommunications)</i>		
Moving Target Defense for Virtual Network Functions <i>David Hay (Hebrew University), Reuven Peretz (The Hebrew University), Shlomo Shenzis (Hebrew University of Jerusalem Israel)</i>		
Towards a Client-Centric QoS Auto-Scaling System <i>Thomas Lin (University of Toronto), Alberto Leon-Garcia (University of Toronto)</i>		

Wednesday, April 22, 2020

11:00 - 12:00	Service Management Techniques Chair: Joan Serrat	Webinar Room 1
MicroRCA: Root Cause Localization of Performance Issues in Microservices <i>Li Wu (Elastisys and Technische Universität Berlin), Johan Tordsson (Elastisys and Umea University), Erik Elmroth (Elastisys and Umea University), Odej Kao (Technische Universität Berlin)</i>		
Layer-Integrated Edge Distributed Data Store for Real-time and Stateful Services <i>Koichiro Amemiya (Fujitsu Laboratories Ltd.), Akihiro Nakao (The University of Tokyo)</i>		
11:00 - 13:00	Management of Smart Systems Chair: Marc-Oliver Pahl	Webinar Room 2
Inherent Vulnerability of Demand Response Optimisation against False Data Injection Attacks in Smart Grids <i>Thusitha Dayaratne (Monash University), Carsten Rudolph (Monash University), Ariel Liebman (Monash University), Mahsa Salehi (Monash University)</i>		
Analysis of Smart Grid Fault Recovery Protocols <i>Luana Uchôa (Universidade Federal Fluminense), Silvio Quincozes (UFF), Juan Lucas Vieira (Universidade Federal Fluminense), Daniel Mossé (University of Pittsburgh), Diego Passos (Universidade Federal Fluminense), Celio Albuquerque (UFF)</i>		
Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis <i>Yuhong Li (Beijing University of Posts and Telecommunications), Di Jin (Beijing University of Posts and Telecommunications), Bailin Wang (Beijing University of Posts and Telecommunications), Xiang Su (University of Helsinki), Jukka Riekkki (University of Oulu), Chao Sun (Hua Wei), Hanyu Wei (Hua Wei), Hao Wang (Hua Wei)</i>		
Towards delay-aware container-based Service Function Chaining in Fog Computing <i>Jose Santos (Ghent University - imec, IDLab), Tim Wauters (Ghent University - imec), Bruno Volckaert (Ghent University - imec, IDLab), Filip De Turck (Ghent University - imec)</i>		
11:00 - 13:00	Monitoring & Security Techniques Chair: Olivier Festor	Webinar Room 3
Scalable monitoring heuristics for improving network latency <i>Maxime Mouchet (IMT Atlantique), Martin Randall (UdeLAR), Marine Segnere (LAAS-CNRS), Isabel Amigo (IMT Atlantique), Pablo Belzarena (Universidad de la República), Olivier Brun (LAAS-CNRS), Balakrishna Prabhu (LAAS-CNRS), Sandrine Vaton (IMT Atlantique)</i>		
Allocating and Scheduling Measurement Applications <i>Raquel Rugani Lage (Orange Labs - Telecom SudParis), Anthony Lambert (Orange Labs)</i>		
Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic <i>Frank Loh (University of Würzburg), Florian Wamser (University of Würzburg), Christian Moldovan (University of Würzburg), Bernd Zeidler (University of Würzburg), Dimitrios Tsilimantos (Mathematical and Algorithmic Sciences Lab, Paris Research Center, Huawei Technologies France SASU), Stefan Valentin (Mathematical and Algorithmic Sciences Lab, Paris Research Center, Huawei Technologies France SASU), Tobias Hoßfeld (University of Würzburg)</i>		
A Hybrid Game Theory and Reinforcement Learning Approach for Cyber-Physical Systems Security <i>Joseph Khoury (American University of Beirut), Mohamed Nassar (AUB)</i>		

11:00 - 13:00	Management Reliability Chair: Abdelkader Lahmadi	Webinar Room 4
Reliable Network Slices based on Elastic Network Resource Demand <i>Gabriel Galdino (Universidade Estadual do Ceará), Rafael Lopes Gomes (Universidade Estadual do Ceará (UECE)), Luiz Fernando Bittencourt (UNICAMP), Edmundo Madeira (UNICAMP)</i>		
LogiSig: Automatic Interaction Detection in Software-based Networks <i>Daphné Tuncer (Imperial College London), Marinos Charalambides (University College London)</i>		
Network Service Mapping and Scheduling under Uncertain Processing Time <i>Yuncan Zhang (Kyoto University), Fujun He (Kyoto University), Eiji Oki (Kyoto University)</i>		
Decentralization of 5G slice resource allocation <i>Francesca Fossati (CNAM), Stefano Moretti (Universite Paris-Dauphine), Stephane Rovedakis (CNAM), Stefano Secci (Cnam)</i>		
15:45 - 17:15	Cognitive Network Techniques Chair: Burkhard Stiller	Webinar Room 1
Efficient Real-Time Traffic Generation for 5G RAN <i>Diarmuid Corcoran (Ericsson / KTH), Per Kreuger (RISE SICS), Christian Schulte (KTH Royal Institute of Technology)</i>		
A scalable SON coordination framework for 5G <i>Diego Fernando Preciado Rojas (Technische Universität Ilmenau), Andreas Mitschele-Thiel (Ilmenau University of Technology)</i>		
Environment Modeling and Abstraction of Network States for Cognitive Functions <i>Stephen Mwanje (Nokia Bell Labs), Marton Kajo (Technical University of Munich), Sayantini Majumdar (Technical University of Munich), Georg Carle (Technical University of Munich)</i>		
15:45 - 17:15	Blockchain Management Chair: Lefteris Mamatas	Webinar Room 2
Dual Vote Confirmation based Consensus Design for Blockchain integrated IoT <i>Zheng Qiu (Beijing University of Posts and Telecommunications), Jianjun Hao (Beijing University of Posts and Telecommunications), Yijun Guo (Beijing University of Posts and Telecommunications), Yi Zhang (Beijing University of Posts and Telecommunications)</i>		
BIIT: Standardization of Blockchain-based I2oT Systems in the I4 Era <i>Sina Rafati Niya (University of Zurich), Eryk Schiller (University of Zurich), Ile Cepilov (University of Zurich), Burkhard Stiller (University of Zürich)</i>		
Blockchain Based Decentralized Framework for Energy Demand Response Marketplace <i>Varun Deshpande (Université Paris-Est, LIGM, ESIEE Paris), Laurent George (ESIEE Paris - LIGM Lab, UPE, France), Hakim Badis (University of Paris-Est Marne-La-Vallée), Alemayehu Desta (ESIEE Paris)</i>		

15:45 - 17:45	Performance Management Chair: Holger Karl	Webinar Room 3
A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks <i>Wael Afifi (Electronics Research Institute), Ali ElMoursy (University of Sharjah), Mohamed Saad (University of Sharjah), Salwa Nassar (Electronics Research Institute), Hadia El-Hennawy (Ain Shams University)</i>		
User Group Behavioural Pattern in a Cellular Mobile Network for 5G Use-cases <i>Gabor Soos (Budapest University of Technology and Economics), Daniel Ficzer (Budapest University of Technology and Economics), Pal Varga (Budapest University of Technology and Economics)</i>		
ElasticWISP ? Energy-Proportional WISP Networks <i>Duncan Cameron (Victoria University of Wellington), Alvin Valera (Victoria University of Wellington), Winston Seah (Victoria University of Wellington)</i>		
Predicting Round-Trip Time Distributions in IoT Systems using Histogram Estimators <i>Andreas Johnsson (Ericsson Research), Christofer Flinta (Retired from Ericsson Research), Wenqing Yan (Uppsala University)</i>		
15:45 - 17:45	Security Chair: Remi Badonnel	Webinar Room 4
5G QoS: Impact of Security Functions on Latency <i>Sebastian Gallenmüller (Technical University of Munich), Johannes Naab (Technical University of Munich), Iris Adam (Nokia), Georg Carle (Technical University of Munich)</i>		
Towards a Dynamic Policy Enhanced Integrated Security Architecture for SDN Infrastructure <i>Kallol Krishna Karmakar (University of Newcastle), Vijay Varadharajan (University of Newcastle), Uday Tupakula (University of Newcastle), Michael Hitchens (Macquarie University)</i>		
Implementing a Security Policy Management for 5G Customer Edge Nodes <i>Hammad Kabir (Aalto University, Finland), Raimo Kantola (Aalto University)</i>		
Community Cleanup: Incentivizing Network Hygiene via Distributed Attack Reporting <i>Yu Liu (Worcester Polytechnic Institute), Craig Shue (Worcester Polytechnic Institute)</i>		

Thursday, April 23, 2020

11:00 - 12:00	Management Operation Techniques Chair: Attila Hilt	Webinar Room 3
Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry <i>Chenhao Jia (Beijing University of Posts and Telecommunications), Tian Pan (BUPT), Zizheng Bian (Beijing University of Posts and Telecommunications), Xingchen Lin (Beijing University of Posts and Telecommunications), Enge Song (Beijing University of Posts and Telecommunications), Cheng Xu (Beijing University of Posts and Telecommunications), Tao Huang (Beijing University of Posts and Telecommunications), Yunjie Liu (Beijing University of Posts and Telecommunications)</i>		
PleBeuS: a Policy-based Blockchain Selection Framework <i>Eder John Scheid (University of Zurich (UZH)), Daniel Lakic (University of Zürich (UZH)), Bruno Rodrigues (Communication Systems Group CSG@IfI, University of Zurich), Burkhard Stiller (University of Zürich)</i>		

11:00 - 13:00	Control Plane Techniques Chair: Rolf Stadler	Webinar Room 4
Load Migration in Distributed SDN Controllers <i>Mohammad Amin Beiruti (University of Toronto), Yashar Ganjali (University of Toronto)</i>		
Perfect is the Enemy of Good: Lloyd-Max Quantization for Rate Allocation in Congestion Control Plane <i>Shiva Ketabi (University of Toronto), Yashar Ganjali (University of Toronto)</i>		
Optimizing the Flexibility of SDN Control Plane <i>Mu He (Technical University of Munich), Mei-Yuan Huang (Technical University of Munich), Wolfgang Kellerer (Technical University of Munich (TUM))</i>		
xRAC: Execution and Access Control for Restricted Application Containers on Managed Hosts <i>Frederik Hauser (University of Tuebingen), Mark Schmidt (University of Tuebingen), Michael Menth (University of Tuebingen)</i>		
12:00 - 13:00	Management Integrity (Part 1) Chair: Attila Hilt	Webinar Room 3
MikroTik Devices Landscape, Realistic Honeypots, and Automated Attack Classification <i>Christian Scholten (University of Twente), João Ceron (University of São Paulo), Aiko Pras (University of Twente), José Jair Santanna (University of Twente)</i>		
Uncovering Vulnerable Industrial Control Systems from the Internet Core <i>Marcin Nawrocki (Freie Universität Berlin), Thomas Schmidt (HAW Hamburg), Matthias Wählisch (Freie Universität Berlin)</i>		
15:00 - 17:00	Management Integrity (Part 2) Chair: Pal Varga	Webinar Room 3
All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network <i>Sami Ben Mariem (Universite de Liege), Pedro Casas (AIT Austrian Institute of Technology), Matteo Romiti (AIT Austrian Institute of Technology), Benoit Donnet (Universite de Liege), Rainer Stütz (AIT Austrian Institute of Technology), Bernhard Haslhofer (AIT Austrian Institute of Technology)</i>		
Global-Scale Anycast Network Management with Verfploeter <i>Wouter de Vries (University of Twente), Salman Aljammaz (Cloudflare), Roland van Rijswijk-Deij (University of Twente)</i>		
VoicePerf: A Quality Estimation Approach for No-reference IP Voice Traffic <i>Péter Orosz (Budapest University of Technology and Economics), Tamas Tothfalusi (Budapest University of Technology and Economics)</i>		
Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks <i>Ali Marandi (University of Bern), Vincent Hofer (University of Bern), Mikael Gasparyan (University of Bern), Torsten Braun (University of Bern), Nikolaos Thomos (University of Essex)</i>		

15:00 - 17:00	Configuration Management Chair: Lisandro Zambenedetti Granville	Webinar Room 4
Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism Yimin Li (BUPT), Lifang Gao (State Grid Hebei Information & Telecommunication Branch), Siya Xu (Beijing University of Posts and Telecommunications), Qinghai Ou (State Grid Information & Telecommunication Group), Xinyu Yuan (Tianjin University), Qi Feng (Beijing University of Posts and Telecommunications), Shaoyong Guo (Beijing University of Posts and Telecommunications), Xuesong Qiu (Beijing University of Posts and Telecommunications)		
?BGP: rethinking BGP programmability Nicholas Hart (Lancaster University), Charalampos Rotsos (Lancaster University), Vasileios Giotsas (Lancaster University), Nicholas Race (Lancaster University), David Hutchison (Lancaster University)		
Computing at the Edge: But, what Edge? Luis Miguel Contreras Murillo (Telefonica I+D), Javier Baliosian (University of the Republic), Pedro Martinez-Julia (National Institute of Information and Communications Technology (NICT)), Joan Serrat (Universitat Politècnica de Catalunya)		
High-Precision Latency Forwarding over Packet-Programmable Networks Alexander Clemm (Futurewei), Toerless Eckert (Futurewei)		

NOMS 2020 Mini-Conference Sessions

Monday, April 20, 2020

09:00 - 11:00	Monitoring & I4.0 Chair: Francesco Tusa	Webinar Room 5
ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G Xenofon Vasilakos (EURECOM), Berkay Koksall (EURECOM), Dwi Hartati Izaldi (URECOM, France), Navid Nikaein (Eurecom), Robert Schmidt (EURECOM), Nasim Ferdosian (EURECOM, France), Riri Fitri Sari (University of Indonesia), Ray-Guang Cheng (National Taiwan University of Science and Technology)		
On the Impact of Flow Monitoring Configuration Petr Velan (Masaryk University), Tomas Jirsik (Masaryk University)		
The rise of eBPF for non-intrusive performance monitoring Cyril Cassagnes (University of Luxembourg), Lucian Trestioreanu (University of Luxembourg), Clément Joly (University of Luxembourg), Radu State (University of Luxembourg)		
Data Quality Maximization for Mobile Crowdsensing Cheng Zhang (Waseda University), Noriaki Kamiyama (Fukuoka University)		
Impact of False Data Injection Attacks on Deep Learning Enabled Predictive Analytics Gautam Raj Mode (University of Missouri-Columbia), Prasad Calyam (University of Missouri-Columbia), Khaza Anuarul Hoque (University of Missouri-Columbia)		

09:00 - 11:00	Management Architectures, Design & Orchestration Chair: Luis Miguel Contreras Murillo	Webinar Room 4
Megalos: A Scalable Architecture for the Virtualization of Network Scenarios Maurizio Patrignani (Roma Tre University), Giuseppe Di Battista (Roma Tre University), Mariano Scazzariello (Roma Tre University), Lorenzo Ariemma (Roma Tre University)		
Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices Andre Beltrami Rocha (UFSCAR), Paulo Ditarso Maciel Jr. (IFPB), Francesco Tusa (University College of London), Celso Cesila (UNICAMP), Christian Esteve Rothenberg (University of Campinas - UNICAMP), Rafael Pasquini (Federal University of Uberlândia (UFU)), Fábio Verdi (Universidade Federal de São Carlos)		
Unavailability-aware Shared Virtual Backup Allocation Model for Middleboxes Fujun He (Kyoto University), Eiji Oki (Kyoto University)		
Performability Management of Softwarized IP Multimedia Subsystem Mario Di Mauro (University of Salerno), Giovanni Galatro (University of Salerno), Maurizio Longo (University of Salerno), Fabio Postiglione (University of Salerno), Marco Tambasco (Consortium of Research on Telecommunications)		
Simplification of the design, deployment, and testing of 5G vertical services Mauro Femminella (University of Perugia), Matteo Pergolesi (CNIT), Gianluca Reali (University of Perugia)		
Automated optimal firewall orchestration and configuration in virtualized networks Daniele Brighenti (Politecnico di Torino), Guido Marchetto (Politecnico di Torino), Riccardo Sisto (Politecnico di Torino), Fulvio Valenza (Politecnico di Torino), Jalolliddin Yusupov (Politecnico di Torino)		
12:00 - 14:00	Resource & Slice Management Chair: Didier Colle	Webinar Room 4
End-to-End Mobile Network Slice Embedding Leveraging Edge Computing Andrea Fendt (University of Augsburg), Christian Mannweiler (Nokia Bell Labs), Katja Ludwig (University of Augsburg), Lars Christoph Schmelz (Nokia Bell Labs), Bernhard Bauer (University of Augsburg)		
Joint Resource and Admission Management for Slice-enabled Networks Sina Ebrahimi (Tarbiat Modares University), Abulfazl Zakeri (Tarbiat Modares University), Behzad Akbari (University of Tarbiat Modares), Nader Mokari (Electrical and Computer Engineering Tarbiat Modares University)		
Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning Ningcheng Yuan (Beijing University of Posts and Telecommunications), Wenchen He (Beijing University of Posts and Telecommunications, Beijing, China), Jing Shen (State Grid Henan Electric Power Company Information & Telecommunication Company), Xuesong Qiu (Beijing University of Posts and Telecommunications), Shaoyong Guo (Beijing University of Posts and Telecommunications), Wenjing Li (Beijing University of Posts and Telecommunication)		
Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains Alisson Medeiros (Universidade Federal do Rio Grande do Norte), Augusto Neto (Universidade Federal do Rio Grande do Norte - UFRN), Silvio Costa Sampaio (Federal University of Rio Grande do Norte (UFRN)), Rafael Pasquini (Federal University of Uberlândia (UFU)), Javier Baliosian (Universitat Politècnica de Catalunya)		

12:00 - 14:00	Management Approaches & Techniques Chair: Javier Baliosian	Webinar Room 5
Matching Theory Application for Efficient Allocation of Indivisible Testbed Resources <i>Donatos Stavropoulos (University of Thessaly), Vasileios Miliotis (University of Thessaly), Thanasis Korakis (University of Thessaly), Leandros Tassioulas (Yale University)</i>		
Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks <i>Che Zhang (Southern University of Science and Technology), Shiwei Zhang (Southern University of Science and Technology), Yi Wang (Southern University of Science and Technology), Weichao Li (Southern University of Science and Technology), Bo Jin (Southern University of Science and Technology), Ka Pui Mok (CAIDA/UCSD), Qing Li (Southern University of Science and Technology), Hong Xu (City University of Hong Kong)</i>		
A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing <i>Menglei Zhang (BEIJING UNIVERSITY OF POST AND TELECOM), Haoqiu Huang (China Aerospace Science and Industry Corporation Limited Network Information Department), LanLan Rui (Beijing University of Posts and Telecommunications), Guo Hui (Beijing University of Posts and Telecommunications), Ying Wang (Beijing University of Posts and Telecommunications), Xuesong Qiu (Beijing University of Posts and Telecommunications)</i>		
LoChiP: A Distributed Collaborative Cache Management Scheme at the Network Edge <i>Junaid Khan (NYU), Cedric Westphal (UCSC), J.J. Garcia-Luna-Aceves (University of California at Santa Cruz), Yacine Ghamri-Doudane (University of La Rochelle)</i>		

Friday, April 24, 2020

09:00 - 11:00	AI & ML Techniques for Network Management Chair: Peter Orosz	Webinar Room 3
Modelling Mobile Traffic Patterns Using A Generative Adversarial Neural Networks <i>Bo Ma (The University of Sheffield)</i>		
Deep Clustering of Mobile Network Data with Sparse Autoencoders <i>Marton Kajo (Technical University of Munich), Benedek Schultz (Nokia Bell Labs), Georg Carle (Technical University of Munich)</i>		
Exploiting Case Based Reasoning to Automate Management of Network Slices <i>Pedro Martinez-Julia (National Institute of Information and Communications Technology (NICT)), Ved Kafle (NICT), Hitoshi Asaeda (National Institute of Information and Communications Technology), Jose Ordonez-Lucena (Telefonica I+D), Diego Lopez (Telefonica I+D)</i>		
Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning <i>Hiroki Ikeuchi (NTT Corporation), Akio Watanabe (NTT), Tsutomu Hirao (NTT), Makoto Morishita (NTT), Masaaki Nishino (NTT), Yoichi Matsuo (NTT corporation), Keishiro Watanabe (NTT)</i>		
Reinforcing Cloud Environments via Index Policy for Bursty Workloads <i>Venkatraman Balasubramanian (Arizona State University), Moayad Aloqaily (Gnowit Inc., Ottawa), ZHENGYU YANG (NORTHEASTERN UNIVERSITY), Martin Reisslein (Arizona State University), Olufogorehan Tunde-Onadele (North Carolina State University)</i>		
Edge Concierge: Democratizing Cost-Effective and Flexible Network Operations using Network Layer AI at Private Network Edges <i>Anan Sawabe (NEC Corporation), Takanori Iwai (NEC), Kozo Satoda (NEC Corporation), Akihiro Nakao (The University of Tokyo)</i>		

12:00 - 14:00	AI & ML Techniques for Security Chair: Rolland Vida	Webinar Room 3
BotFP: FingerPrints Clustering for Bot Detection <i>Agathe Blaise (LIP6, UPMC / Thales), Mathieu Bouet (Université Pierre et Marie Curie (UPMC)), Vania Conan (Thales), Stefano Secci (Cnam)</i>		
Anomaly prediction in mobile networks : A data driven approach for machine learning algorithm selection <i>Imed Hadj-Kacem (Orange Labs.), Sana Ben Jemaa (Orange Labs), Sylvain Allio (Orange Labs.), Yosra Ben Slimen (Orange Labs)</i>		
Unsupervised Detection of Anomalous Behavior in Wireless Devices based on Auto-Encoders <i>Abdurhman Albasir (University of Waterloo)</i>		
A OneM2M Intrusion Detection and Prevention System based on Edge Machine Learning <i>Nadia Chaabouni (University of Bordeaux), Mohamed Mosbah (LaBRI-University of Bordeaux1)</i>		
14:15 - 16:15	Security Management Chair: Tiago Cruz	Webinar Room 3
A Proactive Cache Privacy Attack on NDN <i>Alberto Compagno (Cisco Systems), Mauro Conti (University of Padova), Eleonora Losiouk (University of Padova), Gene Tsudik (UC Irvine), Sebastiano Valle (University of Padova)</i>		
Industrial Grade Methodology for Firewall Simulation and Requirements Verification <i>Ramon Barakat (Fraunhofer FOKUS), Faruk Catal (Fraunhofer FOKUS), Nikolay Tcholtchev (FOKUS Fraunhofer Institute for Open Communication Systems), Yacine Rebahi (Fraunhofer Fokus), Ina Schieferdecker (Fraunhofer FOKUS)</i>		
Attack-Resistant Routing : a Framework for Enhancing Routing Robustness in Wireless Ad-hoc Networks <i>Gi Kim (Perspecta Labs), Constantin Serban (Perspecta Labs), Ritu Chadha (Perspecta Labs)</i>		

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- Istvan Godor, Ericsson, Hungary

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- Takumi Miyoshi, Shibaura Institute of Technology, Japan
- Tamás Csapó, Budapest University of Technology and Economics, Hungary
- Thanh Quang Tran, TU Berlin / Fraunhofer FOKUS, Germany
- Thiago Genez, University of Cambridge, Great Britain
- Thibault Cholez, University of Lorraine (LORIA, INRIA), France
- Thierry Coupaye, Orange, France
- Thierry Turetti, Inria, France
- Thomas Zinner, NTNU Trondheim, Norway
- Tiago Cruz, University of Coimbra, Portugal
- Tim Wauters, Ghent University - imec, Belgium
- Tolga Ovatman, Istanbul Technical University, Turkey
- Tomas Jirsik, Masaryk University, Czech Republic
- Torsten Braun, University of Bern, Switzerland
- Toufik Ahmed, University of Bordeaux / Bordeaux INP, France
- Vaibhav Bajpai, TU Munich, Germany
- Valerio Frasca, Intel Deutschland GmbH, Germany
- Vasco Pereira, University of Coimbra, Portugal
- Vatche Ishakian, Bentley University, USA
- Vijay Gurbani, Illinois Institute of Technology, USA
- Walter Cerroni, University of Bologna, Italy
- Wang-Cheol Song, Jeju National University, Republic of Korea
- Weverton Cordeiro, UFRGS, Brazil
- Wolfgang Hommel, Universität der Bundeswehr München, Germany
- Wolfgang Kellerer, Technical University of Munich (TUM), Germany
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- Yoshiaki Kiriha, Japan Science and Technology Agency, Japan
- Young Choi, Regent University, USA
- Young-Tak Kim, Yeungnam University, Republic of Korea
- Yu-Sung Wu, National Chiao Tung University, Taiwan
- Yuefeng Wang, Akamai Technologies, Inc, USA
- Zoltán Vincze, Nokia Bell Labs, Hungary
- Zwi Altman, Orange Labs, France

Poster Sessions

Tuesday, April 21, 2020

13:00 - 14:00	Poster 1 (A) Chair: Paulo Simoes	Webinar room 6
Dividing Deep Learning Model for Continuous Anomaly Detection of Inconsistent ICT Systems <i>Kengo Tajiri (NTT Corporation), Yasuhiro Ikeda (PKSHA Technology), Yuusuke Nakano (NTT), Keishiro Watanabe (NTT)</i>		
A Machine Learning-Based Framework to Estimate the Lifetime of Network Line Cards <i>Juan Luis Herrera Gonzalez (Department of Computer Systems and Telematics Engineering, University of Extremadura), Marco Polverini (Sapienza, University of Rome), Jaime Galán-Jiménez (University of Extremadura)</i>		
13:00 - 14:00	Poster 1 (B) Chair: Paulo Simoes	Webinar room 7
Using Machine Learning to Estimate the Optimal Transmission Range for RPL Networks <i>Moussa Aboubakar (Université de Technologie de Compiègne), Mounir Kellil (CEA, LIST, Communicating Systems Laboratory), Abdelmadjid Bouabdallah (UTC), Pierre Roux (CEA, LIST, Communicating Systems Laboratory)</i>		
Practical 5G KPI Measurement Results on a Non-Standalone Architecture <i>Gabor Soos (Budapest University of Technology and Economics), Daniel Ficzer (Budapest University of Technology and Economics), Pal Varga (Budapest University of Technology and Economics), Zsolt Szalay (Budapest University of Technology and Economics)</i>		
17:30 - 18:30	Poster 2 (A) Chair: Tiago Cruz	Webinar room 6
Adaptive scaling of Kubernetes pods <i>Dávid Balla (Budapest University of Technology and Economics), Markosz Maliosz (Budapest University of Technology and Economics), Csaba Simon (BME/TMIT)</i>		
Unveiling the Features of Network Dynamics: a Data-Oriented Approach <i>Shibo Lu (Imperial College London), Daphné Tuncer (Imperial College London), Stuart Clayman (University College London)</i>		
17:30 - 18:30	Poster 2 (B) Chair: Tiago Cruz	Webinar room 7
Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description <i>Rafael Pasquini (Federal University of Uberlândia (UFU)), Javier Baliosian (University of the Republic), Joan Serrat (Universitat Politècnica de Catalunya), Juan Luis Gorricho (Universitat Politècnica de Catalunya), Augusto Neto (Universidade Federal do Rio Grande do Norte - UFRN), Fábio Verdi (Universidade Federal de São Carlos)</i>		

Wednesday, April 22, 2020

13:00 - 14:00	Poster 3 (A) Chair: Csaba Simon	Webinar room 6
Towards Adversarial Resilience in Proactive Detection of Botnet Domain Names by using MTD <i>Christian Dietz (Bundeswehr University Munich), Gabi Dreo Rodosek (University of Federal Armed Forces, Munich), Anna Sperotto (University of Twente), Aiko Pras (University of Twente)</i>		
Preventing DDoS attacks in Path Identifiers-Based Information Centric Networks <i>Basheer Al-Duwairi (Jordan University of Science & Technology), Ozgur Ozkasap (Koc University)</i>		
13:00 - 14:00	Poster 3 (B) Chair: Csaba Simon	Webinar room 7
Process mining-based approach for investigating malicious login events <i>Sofiane Lagraa (University of Luxembourg), Radu State (University of Luxembourg)</i>		
NEW IP Framework and Protocol for Future Applications <i>Zhe Chen (Huawei Technologies Co., Ltd.), Chuang Wang (Huawei Technologies Co., Ltd.), Guanwen Li (Huawei Technologies Co., Ltd.), Zhe Lou (Huawei Technologies Co., Ltd.), Sheng Jiang (Huawei Technologies Co., Ltd.), Alex Galis (University College London)</i>		
17:45 - 18:45	Poster 4 (B) Chair: Attila Hilt	Webinar room 6
Hierarchical Congestion Control (HCC): Cooperation of Uncorrelated Flows for Better Fairness and Throughput <i>Shiva Ketabi (University of Toronto), Yashar Ganjali (University of Toronto)</i>		
SDN-assisted containerized security and monitoring components <i>Miguel Borges de Freitas (University of Coimbra), Pedro Quitério (University of Coimbra), Luis Rosa (University of Coimbra), Tiago Cruz (University of Coimbra), Paulo Simoes (University of Coimbra)</i>		
17:45 - 18:45	Poster 4 (B) Chair: Attila Hilt	Webinar room 7
AccuPIPE: Accurate Heavy Flow Detection in the Data Plane Using Programmable Switches <i>Yang Guo (NIST), Franklin Liu (UIUC), An Wang (Case Western Reserve University), Hang Liu (The Catholic University of America)</i>		

Thursday, April 23, 2020

13:00 - 14:00	Poster 5 (A) Chair: Markosz Maliosz	Webinar room 1
Interference Cancellation for Software Defined Impulse Radio by Template Design <i>Xufang Wang (Fujian Normal University), Feng Lin (Fuzhou Institute for Data Technology), Wen-Kang Jia (Fujian Normal University)</i>		
Flexible Content-based Publish/Subscribe over Programmable Data Planes <i>Ralf Kundel (Technische Universität Darmstadt), Christoph Gärtner (TU Darmstadt), Manisha Luthra (TU Darmstadt), Sukanya Bhowmik (Uni Stuttgart), Boris Koldehofe (TU Darmstadt)</i>		

13:00 - 14:00	Poster 5 (B) Chair: Markosz Maliosz	Webinar room 5
OpenFlow enabled Integrated Routing and Bridging over Ethernet Virtual Private Networks <i>Panagiotis Karamichailidis (University of Thessaly), Kostas Choumas (University of Thessaly), Thanasis Korakis (University of Thessaly)</i>		
Capacity Expansion and Modernization of Core Network Elements Running on ATCA Platform <i>Attila Hilt (Nokia), József Varga (NOKIA), Gábor Járó (Nokia)</i>		

Poster co-chairs

- Tiago Cruz, Universidade de Coimbra, Portugal
- Attila Hilt, Nokia, Hungary
- Simon Csaba, Budapest University of Technology and Economics

Poster TPC members and reviewers

- André Riker, Federal University of Para, Brazil
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- Atakan Aral, Vienna University of Technology, Austria
- Attila Hilt, Nokia, Hungary
- Attila Vidács, Budapest University of Technology and Economics (BME), Hungary
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- Chung-Ta King, National Tsing Hua University, Taiwan
- Csaba Simon, Budapest University of Technology and Economics (BME), Hungary
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- David H. S. Lima, Instituto Federal de Alagoas, Brazil
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- Engin Zeydan, CTTC, Spain
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- Federica Paganelli, University of Pisa, Italy, Italy
- Filipe Caldeira, University of Coimbra, Portugal
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- Miklós Máté, Budapest University of Technology and Economics (BME), Hungary
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- Rafael Esteves, IFRS, Brazil
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- Vasco Pereira, University of Coimbra, Portugal
- Walter Cerroni, University of Bologna, Italy
- Wolfgang Kellerer, Technical University of Munich (TUM), Germany
- Zoltán Vincze, Nokia Bell Labs, Hungary

Experience Sessions

Tuesday, April 21, 2020

11:00 - 13:00	Network Operations and Management Chair: Martin Husak	Webinar Room 5
A Resource Efficient Implementation of the RESTCONF Protocol for OpenWrt Systems <i>Malte Granderath (Jacobs University Bremen), Juergen Schoenwaelder (Jacobs University Bremen)</i>		
SSH Kernel: A Jupyter Extension Specifically for Remote Infrastructure Administration <i>Masaru Ueno (FUJITSU LABORATORIES LTD.), Yuji Imai (Fujitsu Labs.)</i>		
Comparative Analysis of Network Fault Classification Using Machine Learning <i>Junichi Kawasaki (KDDI Research, Inc.), Genichi Mori (KDDI Research, Inc.), Yusuke Suzuki (KDDI Research)</i>		
Using TLS Fingerprints for OS Identification in Encrypted Traffic <i>Martin Lastovicka (Masaryk University), Stanislav Spacek (Masaryk University), Pavel Celeda (Masaryk University), Petr Velan (Masaryk University)</i>		

Wednesday, April 22, 2020

11:00 - 13:00	Monitoring and Security Chair: Remi Badonnel	Webinar Room 5
Towards Efficient and Adaptable Monitoring of Softwarized Mobile Networks <i>Alan Plascinkas (The University of Edinburgh), Xenofon Foukas (The University of Edinburgh), Mahesh Marina (The University of Edinburgh)</i>		
Protecting Home Networks From Insecure IoT Devices <i>Elmer Lastdrager (SIDN Labs), Cristian Hesselman (SIDN Labs), Jelte Jansen (SIDN Labs), Marco Davids (SIDN Labs)</i>		
Is it time for a 999-like (or 112/911) system for critical information services? <i>Emeka Obiodu (King's College London), Nishanth Sastry (King's College London), Aravindh Raman (King's College London)</i>		
Network Monitoring and Enumerating Vulnerabilities in Large Heterogeneous Networks <i>Martin Lastovicka (Masaryk University), Martin Husak (Masaryk University), Lukáš Sadlek (Masaryk University)</i>		

Experience session co-chairs

- Remi Badonnel, Telecom Nancy, Université de Lorraine, France
- Martin Husak, Masaryk University, Czech Republic

Experience Session TPC members and reviewers

- Abdelkader Lahmadi, University of Lorraine, France
- Adel El-Atawy, Google, USA
- Alexander Clemm, Futurewei, USA
- Alexander Keller, IBM Global Technology Services, USA
- Alva Couch, Tufts University, USA
- Andrzej (Andrew) Kochut, Two Sigma Investments, USA
- Carlos H. Gañán, Delft University of Technology, Netherlands
- Carlos Raniery Paula dos Santos, UFSM, Brazil
- Choong Seon Hong, Kyung Hee University, Korea
- Christian Doerr, Delft University of Technology, Netherlands
- Cristian Hesselman, SIDN Labs, Netherlands
- Daniel Tovarnak, Masaryk University, Czech Republic
- Elias Bou Harb, UTSA, USA
- Ewerton Salvador, Universidade Federal da Paraíba, Brazil
- Helmut Reiser, Leibniz-Supercomputing Centre, Germany
- Idilio Drago, Politecnico di Torino, Italy
- Imen Grida Ben Yahia, Orange labs, France
- Jérémie Leguay Huawei, France Research Center, France
- Jeferson Campos Nobre, UFRGS, Brazil
- Joe Betser, The Aerospace Corporation, Brazil
- Joon-Myung Kang, Google, USA
- Liam Fallon, Ericsson, Ireland
- Liang-Min Wang, Intel Corp, USA
- Lisandro Zambenedetti Granville, UFRGS, Brazil
- Lucy Cherkasova, ARM Research, USA
- Maciej Korczynski, Grenoble Institute of Technology, France
- Makoto Misumi, Fukuoka University, Japan
- Marc-Oliver Pahl, IMT Atlantique, France
- Martín Barrère, Imperial College London, UK
- Martin Husak, Masaryk University, Czech Republic
- Noriaki Kamiyama, Fukuoka University, Japan
- Nur Zincir-Heywood, Dalhousie University, Canada
- Ondrej Rysavy, Brno University of Technology, Czech Republic
- Pal Varga, Budapest University of Technology and Economics, Hungary
- Panagiotis Papadimitriou, University of Macedonia, Greece
- Pavel Celeda, Masaryk University, Czech Republic
- Petr Velan, Masaryk University, Czech Republic
- Ramin Sadre, Université Catholique de Louvain, Belgium
- Remi Badonnel, INRIA - TELECOM Nancy - University of Lorraine, France
- Ricardo Schmidt, University of Passo Fundo, Brazil
- Roberto Riggio, Fondazione Bruno Kessler, Italy
- Shinji Kikuchi, Fujitsu Laboratories Limited, Japan
- Sinem Guven, IBM T. J. Watson Research Center, USA

- Stanislav Spacek, Masaryk University, Czech Republic
- Steven Latré, University of Antwerp - iMinds, Belgium
- Xuesong Qiu, Beijing University of Posts and Telecommunications, China

Demos

Tuesday, April 21, 2020

13:00 - 14:00	NOMS 2020 Demo Session - 1	Demo Webinar Room
17:30 - 18:30	Chair: Roberto Riggio	
Mobility and QoS Prediction for Dynamic Coverage Optimization <i>Janne Ali-Tolppa (Nokia Networks), Marton Kajo (Technical University of Munich)</i>		
Elastic Monitoring Architecture for Cloud Network Slices <i>Andre Beltrami Rocha (UFSCAR), Celso Cesila (UNICAMP), Paulo Ditarso Maciel Jr. (IFPB), Christian Esteve Rothenberg (University of Campinas - UNICAMP), Fábio Verdi (Universidade Federal de São Carlos)</i>		
Network Slice Management on top of ONAP <i>Veronica Quintuna Rodriguez (Orange Labs), Fabrice Guillemin (Orange Labs), Amina Boubendir (Orange Labs)</i>		
Microbursts in Software and Hardware-based Traffic Load Generation <i>Ralf Kundel (Technische Universität Darmstadt), Amr Rizk (Uni Ulm), Boris Koldehofe (TU Darmstadt)</i>		
Demo: Execution and Access Control for Restricted Application Containers on Managed Hosts (xRAC) <i>Frederik Hauser (University of Tuebingen), Michael Menth (University of Tuebingen)</i>		

Wednesday, April 22, 2020

13:00 - 14:00 17:45 - 18:45	NOMS 2020 Demo Session - 2 Chair: Amina Boubendir	Demo Webinar Room
Demonstration of Network Service Header Based Service Function Chain Application with Function Allocation Model <i>Rui Kang (Kyoto University), Fujun He (Kyoto University), Takehiro Sato (Kyoto University), Eiji Oki (Kyoto University)</i>		
Kathará: A Lightweight Network Emulation System <i>Mariano Scazzariello (Roma Tre University), Lorenzo Ariemma (Roma Tre University), Tommaso Caiazzzi (Roma Tre University)</i>		
A Network Emulator for High-Precision Latency Forwarding over Packet-Programmable Networks (Demo Paper) <i>Alexander Clemm (Futurewei), Toerless Eckert (Futurewei)</i>		
OVS-DPDK Port Mirroring via NIC Offloading <i>Liang-Min Wang (Intel Corp), Timothy Miskell (Intel), Patrick Fu (Intel Corp), Cunming Liang (Intel Corp), Edwin Verplanke (Intel Corp)</i>		
On the Implementation of Matching Theory Based Resource Allocation in Networking Testbeds <i>Donatos Stavropoulos (University of Thessaly), Vasileios Miliotis (University of Thessaly), Thanasis Korakis (University of Thessaly), Leandros Tassioulas (Yale University)</i>		
Demo: NFV-based IoT Security at the ISP Level <i>Yehuda Afek (Tel Aviv University), Anat Bremler-Barr (Interdisciplinary Center Herzliya), David Hay (Hebrew University), Lior Shafir (Tel Aviv University), Ihab Zhaika (Hebrew University)</i>		

Thursday, April 23, 2020

13:00 - 14:00 15:00 - 17:00	NOMS 2020 Demo Session - 3 Chair: Shingo Ata	Demo Webinar Room
A Process Mining Tool for Supporting IoT Security <i>Adrien Hemmer (National Institute for Research in Computer Science and Automation (Inria)), Remi Badonnel (INRIA - TELECOM Nancy - University of Lorraine), Jérôme François (INRIA Nancy Grand Est), Isabelle Chrisment (TELECOM Nancy - Université de Lorraine)</i>		
Demo: Deploying Transparent Applications at the Network Edges with LightEdge <i>Estefania Coronado (Fondazione Bruno Kessler), Faqir Zarrar Yousaf (NEC Laboratories, Europe GmbH), Roberto Riggio (Fondazione Bruno Kessler)</i>		
Demo: Efficient Multi-Service RAN Slice Management and Orchestration <i>Robert Schmidt (EURECOM), Navid Nikaein (Eurecom)</i>		
5G Cloud-Native: Network Management & Automation <i>Osama Arouk (Eurecom), Navid Nikaein (Eurecom)</i>		
Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning <i>Talha ahmed Khan (Jeju National University), Asif Mehmood (Jeju National University), Javier Jose Rivera (Jeju National University), Muhammad Afaq (Jeju National University), Khizar Abbas (Jeju National University, South Korea), Wang-Cheol Song (Jeju National University)</i>		

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- Roberto Riggio, FBK CREATE-NET, Italy
- Amina Boubendir, Orange Labs, France

- Shingo Ata, Osaka University, Japan
- Sven van der Meer, Ericsson, Ireland

Additional reviewer

- Pal Varga, Budapest University of Technology and Economics, Hungary

Dissertation Digests

Thursday, April 23, 2020

11:00 - 13:00	Ph 1 - Security Management Chair: Burkhard Stiller	Webinar Room 2
Cyber Situation Awareness via IP Flow Monitoring <i>Tomas Jirsik (Masaryk University), Pavel Celeda (Masaryk University)</i>		
DDoS Mitigation: A Measurement-Based Approach <i>Mattijs Jonker (University of Twente), Anna Sperotto (University of Twente), Aiko Pras (University of Twente)</i>		
Distributed DDoS Defense: A collaborative Approach at Internet Scale <i>Jessica Steinberger (Central Office for Information Technology in the Security Sector), Anna Sperotto (University of Twente), Aiko Pras (University of Twente), Harald Baier (University of Applied Sciences Darmstadt)</i>		
Predictions of Network Attacks in Collaborative Environment <i>Martin Husak (Masaryk University), Pavel Celeda (Masaryk University)</i>		
15:00 - 17:00	Ph 2 - Wireless Management Chair: Alberto Schaeffer-Filho	Webinar Room 2
Improvements to Multimedia Content Delivery over IEEE 802.11 Networks <i>Estefania Coronado (Fondazione Bruno Kessler), Jose M. Villalon (Universidad de Castilla-La Mancha), Antonio Garrido (UCLM)</i>		
Resource Allocation and Management Techniques for Network Slicing in WiFi Networks <i>Matias Richart (Universidad de la República), Javier Baliosian (University of the Republic), Joan Serrat (Universitat Politècnica de Catalunya), Juan Luis Gorricho (Universitat Politècnica de Catalunya)</i>		
Multi-technology Management of Heterogeneous Wireless Networks <i>Tom De Schepper (University of Antwerp - imec - IDLab), Jeroen Famaey (University of Antwerp - imec), Steven Latré (University of Antwerp - iMinds)</i>		
From 2D to Next Generation VR/AR Videos: Enabling Efficient Streaming via QoE-aware Mobile Networks <i>Roberto Irajá Tavares da Costa Filho (Universidade Federal do Rio Grande do Sul), Filip De Turck (Ghent University - imec), Luciano Paschoal Gaspary (UFRGS)</i>		

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- Burkhard Stiller, University of Zürich, Switzerland

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- Filip De Turck, Ghent University - imec
- Hanan Lutfiyya, University of Western Ontario
- Juergen Schoenwaelder, Jacobs University Bremen
- Lisandro Zambenedetti Granville, UFRGS
- Marinos Charalambides, University College London
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- Mohamed Faten Zhani, Ecole de Technologie Supérieure
- Paulo Simoes, University of Coimbra
- Remi Badonnel, INRIA - TELECOM Nancy - University of Lorraine

International Workshop on Analytics for Network and Service Management (AnNet)

Monday, April 20, 2020

10:00 - 11:00	Lightning Talks Chair: Sandrine Vaton	Webinar Room 1
Few-shot Learning for eNodeB Performance Metric Analysis for Service Level Assurance in LTE Networks <i>Aoki Shogo (Waseda University), Kohei Shiimoto (Tokyo City University), Chin Lam Eng (Ericsson Japan), Sebastian Backstad (Ericsson)</i>		
Distributed Real-time Forecasting Framework for IoT Network and Service Management <i>Diogo Ferreira (Universidade de Aveiro), Carlos Senna (Instituto de Telecomunicações), Susana Sargento (Universidade de Aveiro)</i>		
An Empirical Study of the Effectiveness of Fallback on the ECN <i>Linzhi Zou (Prefectural University of Hiroshima), Chun-Xiang Chen (Prefectural University of Hiroshima), Kenichi Nagaoka (National College of Tech., Ishikawa College)</i>		
A Dynamic Spectrum Footprint Adaptation Framework for Collaborative Spectrum Sharing <i>Ruben Mennes (University of Antwerp - imec), Jakob Struye (University of Antwerp - IMEC), Carlos Donato (University of Antwerp - IMEC), Steven Latré (University of Antwerp - iMinds)</i>		
A Device Identification Method Based on Combination of Multiple Information <i>Yuki Imamura (Osaka City University), Nobuyuki Nakamura (Oki Electric Industry), Taketsugu Yao (Oki Electric Industry Co.,Ltd.), Shingo Ata (Osaka City University), Ikuo Oka (Osaka City University)</i>		
11:00 - 12:20	Technical Session 1 Chair: Isabelle Chrisment	Webinar Room 1
Towards Improved Fault Localization using Transfer Learning and Language Modeling <i>Yusufu Shehu (Moogsoft Ltd.), Robert Harper (Moogsoft Ltd.)</i>		
DeepSIP: A System for Predicting Service Impact of Network Failure by Temporal Multimodal CNN <i>Yoichi Matsuo (NTT Corporation), Tatsuaki Kimura (NTT), Ken Nishimatsu (NTT)</i>		
Unsupervised Feature Selection for Telemetry Event Description <i>Thomas Feltin (École polytechnique, Cisco Systems), Parisa Foroughi (Telecom Paris, Cisco Systems), Wenqin Shao (Cisco Systems & Telecom ParisTech), Frank Brockners (Cisco Systems), Thomas Clausen (Ecole Polytechnique)</i>		

13:30 - 14:45	Technical Session 2 Chair: Steven Latré	Webinar Room 1
Towards detecting DNSSEC validation failure with passive measurements <i>Kensuke Fukuda (National Insitute of Informatics), Yoshiro Yoneya (JPRS), Takeshi Mitamura (JPRS)</i>		
Going Beyond DiffServ in IP Traffic Classification <i>Davide Aureli (University of Rome 1 & Cnam), Antonio Cianfrani (University of Rome Sapienza), Alessio Diamanti (Orange), Jose Manuel Sanchez Vilchez (Orange Labs), Stefano Secci (Cnam)</i>		
Unveiling the Type of Relationship Between Autonomous Systems Using Deep Learning <i>Tal Shapira (Tel Aviv University), Yuval Shavitt (Tel Aviv University)</i>		
14:45 - 15:45	Technical Session 3 Chair: Sandrine Vaton	Webinar Room 1
Optimizing HAS for 360-Degree Videos <i>Christian Moldovan (University of Würzburg), Frank Loh (University of Würzburg), Michael Seufert (University of Würzburg), Tobias Hossfeld (University of Duisburg-Essen)</i>		
Two Decades of AI4NETS, Challenges & Research Directions <i>Pedro Casas (AIT Austrian Institute of Technology)</i>		

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- Sandrine Vaton, IMT Atlantique, France
- Steven Latré, University of Antwerp – IMEC, Belgium

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- Takeru Inoue, NTT, Japan
- Tom De Schepper, University of Antwerp - imec - IDLab, Belgium

Workshop on Security for Emerging Distributed Network Technologies (DISSECT)

DISSECT Poster Papers

Friday, April 24, 2020

11:00 - 12:00	Poster Session Chair: Emmanouil Vasilomanolakis	Webinar Room 1
Citrus: Orchestrating Security Mechanisms via Adversarial Deception <i>Ryan Mills (Lancaster University), Matthew Broadbent (Lancaster University), Nicholas Race (Lancaster University)</i>		
A Privacy-Aware Collaborative DDoS Defense Network <i>Carol Fung (Virginia Commonwealth University), Yadunandan Pillai (Virginia Commonwealth University)</i>		
A framework for automatic firewalls configuration via argumentation reasoning <i>Erisa Karafili (University of Southampton), Fulvio Valenza (Politecnico di Torino), Yichen Chen (Imperial College London), Emil Lupu (Imperial College)</i>		

DISSECT Full Papers

Friday, April 24, 2020

09:00 - 11:00	Main session Chair: Thibault Cholez	Webinar Room 1
Hardening X.509 Certificate Issuance using Distributed Ledger Technology <i>Holger Kinkel (Technische Universität München), Richard von Seck (Technische Universität München), Georg Carle (Technical University of Munich)</i>		
Decision Support for Mission-Centric Network Security Management <i>Michal Javorník (Masaryk University), Jana Komarkova (Masaryk University), Lukáš Sadlek (Masaryk University), Martin Husak (Masaryk University)</i>		
Clustering IoT Malware based on Binary Similarity <i>Márton Bak (Budapest University of Technology and Economics), Dorottya Papp (Budapest University of Technology and Economics), Csongor Tamás (Budapest University of Technology and Economics), Levente Buttyán (Budapest University of Technology and Economics)</i>		
Scan Correlation - Revealing distributed scan campaigns <i>Steffen Haas (University Hamburg), Florian Wilkens (Universität Hamburg), Mathias Fischer (University Hamburg)</i>		

DISSECT organizers

- Carol Fung Virginia Commonwealth University, USA
- Emmanouil Vasilomanolakis Aalborg University, Denmark
- Thibault Cholez Université de Lorraine, France

DISSECT TPC members and reviewers

- Carol Fung, Virginia Commonwealth University, USA
- Christian Hammerschmidt, Delft University of Technology, The Netherlands
- Daishi Kondo, Osaka Prefecture University, Japan
- Emmanouil Vasilomanolakis, Aalborg University, Denmark
- Gerard Wagener, CIRCL, Luxemburg
- Hsu-Chun Hsiao, National Taiwan University, Taiwan
- Jassim Happa, University of Oxford, Great Britain
- Jérôme François, INRIA Nancy Grand Est, France
- Joerg Daubert, Philipps-University Marburg, Germany
- Mohamed Faten Zhani, Ecole de Technologie Supérieure, Canada
- Rafael Esteves, IFRS, Brazil
- Ramin Sadre, Université Catholique de Louvain, Belgium
- Shankar Karuppayah, Universiti Sains Malaysia, Malaysia
- Thibault Cholez, University of Lorraine, France
- Weverton Cordeiro, UFRGS, Brazil

International workshop on Graph-based network Security (GraSec)

Keynote Graph-based models in prediction and projection of cyber attacks

Dr. Martin Husák, 24, April 2020, 12:15-13:15 (Webinar Room 1)



Biography: Martin Husák is a researcher at the Institute of Computer Science at Masaryk University, a member of the university's security team (CSIRT-MU), and a contributor to The Honeynet Project. His thesis addressed the problem of early detection and prediction of network attacks using information sharing. His research interests are related to cyber situational awareness and threat intelligence with a special focus on the effective sharing of data from honeypots and network monitoring.

Abstract: Predictive analysis allows next-generation cyber defense that is more proactive than current approaches based solely on intrusion detection. In this talk, we will discuss various approaches to predicting and projecting cyber attacks. Graph-based models are dominating the field since the foundation of this research area. Attack graphs were used to traverse through the attacker's actions and project the continuation of an ongoing attack. Later, attack graphs were combined with Bayesian networks and Markov models to reflect the probabilistic nature of predictions and overcome uncertainties in observation of attack steps. However, there are still open issues, such as how to create such models and evaluate the predictions. The talk will shed light on using graphs in this research area and summarize resolved and open issues.

Technical Sessions

Friday, April 24, 2020

13:15 - 14:30	Graph-based network security Chair: Sofiane Lagraa	Webinar Room 1
Characterising Network-Connected Devices Using Affiliation Graphs <i>Kyle Millar (University of Adelaide), Adriel Cheng (University of Adelaide, Defence Science & Technology Group), Hong Gunn Chew (University of Adelaide), Cheng-Chew Lim (University of Adelaide)</i>		
Graph-based evaluation of probability of disclosing the network structure by targeted attacks <i>Andrei Privalov (Emperor Alexander I St. Petersburg State Transport University (PGUPS)), Ekaterina Skudneva (Emperor Alexander I St. Petersburg State Transport University (PGUPS)), Igor Kotenko (St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS)), Igor Saenko (St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS))</i>		
On the Detection of Persistent Attacks using Alert Graphs and Event Feature Embeddings <i>Benjamin Burr (Carleton University), Shelly Wang (Carleton University), Geoffrey Salmon (RANK Software), Hazem Soliman (RANK Software)</i>		

GraSec organizers

- Sofiane Lagraa (SnT, University of Luxembourg)
- Radu State (SnT, University of Luxembourg)
- Hamida Seba (LIRIS, University of Lyon, France)
- Christian Hammerschmidt (Delft University of Technology, Netherlands)

GraSec TPC members and reviewers

- Abdelkader Lahmadi, University of Lorraine, France
- Christian Hammerschmidt, Delft University of Technology, Netherlands
- Igor Kotenko, St.Petersburg Institute for Informatics and Automation, Russia
- Martin Husak, Masaryk University, Czech Republic
- Martin Kappes, Frankfurt University of Applied Sciences, Germany
- Mohammed Haddad, University of Lyon, France
- Pierre Parrend, ECAM, France
- Satyanarayana Vuppala, UTRC-Ireland, Ireland

International Workshop on Intelligent Transportation and Connected Vehicles Technologies (ITCVT)

Opening &Keynote: Big data Computing and Machine Learning for Intelligent Transportation and Connected Vehicles

Prof. Sanjay Ranka, Monday 20 April 2020, 09:30-11:00



Prof. Sanjay Ranka, University of Florida, USA: Sanjay Ranka is a Professor in the Department of Computer Information Science and Engineering at University of Florida. His current research interests are high performance and parallel computing with a focus on energy efficiency; and big data science with a focus on datamining/machine learning algorithms for spatiotemporal applications. His work is driven by applications in CFD, remote sensing, health care and transportation. He teaches courses on data science (three course curriculum), data mining and parallel computing. From 1999-2002, he was the Chief Technology Officer at Paramark (Sunnyvale, CA). At Paramark, he developed a real-time optimization service called PILOT for marketing campaigns. PILOT served more than 10 million optimized decisions a day in 2002 with a 99.99% uptime. Paramark was recognized by VentureWire/Technologic Partners as a top 100 Internet technology company in 2001 and 2002 and was acquired in 2002. He has also held positions as a tenured faculty positions at Syracuse University and as a researcher/visitor at IBM T.J. Watson Research Labs and Hitachi America Limited. Sanjay earned his Ph.D. (Computer Science) from the University of Minnesota and a B. Tech. in Computer Science from IIT, Kanpur, India. He has coauthored four books, 280+ journal and refereed conference articles. His recent co-authored work has received a best student paper runner up award at IGARSS 2015, best paper award at BICOB 2014, best student paper award at ACM-BCB 2010, best paper runner up award at KDD-2009, a nomination for the Robbins Prize for the best paper in journal of Physics in Medicine and Biology for 2008, and a best paper award at ICN 2007. He is a fellow of the IEEE and AAAS, and a past member of IFIP Committee on System Modeling and Optimization. He is an associate Editor-in-Chief of the Journal of Parallel and Distributed Computing and an associate editor for ACM Computing Surveys, IEEE/ACM Transactions on Computational Biology and Bioinformatics, Sustainable Computing: Systems and Informatics, Knowledge and Information Systems, and International Journal of Computing. He is also an editorial board member of Applied Sciences (Computing and Artificial Intelligence). Additionally, he is a book series editor for CRC Press for Bigdata. In the past, he has been an associate editor for IEEE Transactions on Parallel and Distributed Systems and IEEE Transactions on Computers. He was a past member of the IFIP Committee on System Modeling and Optimization, Parallel Compiler Runtime Consortium, the Message Passing Initiative Standards Committee and Technical Committee on Parallel Processing. He is the program chair for 2015 High Performance Computing, 2013 International Parallel and Distributed Processing Symposium, 2010 International Conference on Contemporary Computing and co-general chair for 2009 International Conference on Data Mining and 2010 International Conference on Green Computing. He is a series editor for CRC press on Bigdata. His work has received 11800+ citations with an h-index of 52 (based on Google Scholar).

Abstract: Big data Computing and Machine Learning for Intelligent Transportation and Connected Vehicles.

We are developing machine learning algorithms and software to fuse real-time feeds from video cameras and traffic sensor data to generate real-time detection, classification, and space-time trajectories of individual vehicles and pedestrians. This information is then transmitted to a cloud-based system and then synthesized to create a real-time city-wide traffic palette. I will discuss our research on:

- Smart intersections: Space-time trajectories are used to understand and improve the safety and efficiency of the intersection. Using conflict points of the vehicle-pedestrian trajectories, we identify potential collisions, or "near-misses," and how they are related to the state of the signal cycle (transition from green to yellow, from yellow to red, etc.) and the presence of other vehicles and pedestrians.
- Smart system: We are developing efficient signal re-timing for different corridors by time of day and day of the week to reflect the changes in network demand. We are also developing machine learning techniques for real-time detection of incidents and accidents on arterial networks.
- Smart interactions with connected and autonomous vehicles: We have developed signalized intersection control strategies and sensor fusion algorithms for jointly optimizing vehicle trajectories and signal control for a mixture of autonomous vehicles and traditional vehicles at every intersection

Technical Session

Monday, April 20, 2020

11:00 - 12:30	Main Session 1 Chair: Moayad Aloqaily	Webinar Room 3
AI Enabled Resource Allocation in Future Mobile Networks <i>Umer Rehman Mughal (Technische Universität Berlin), Manzoor Ahmed Khan (UAE University), Azam Beg (UAE University), Ghulam Qadir Mughal (Superior University Lahore)</i>		
A Game-Theoretic Approach for Distributed Attack Mitigation in Intelligent Transportation Systems <i>Talal Halabi (University of Winnipeg), Omar Abdul Wahab (Université du Québec en Outaouais), Mohammad Zulkernine (Queen's University)</i>		
STARC: Low-power Decentralized Coordination Primitive for Vehicular Ad-hoc Networks <i>Patrick Rathje (Kiel University)</i>		
Management of Smart Vehicular Handovers in Overlapped V2X Networks <i>Hyundong Hwang (Yeungnam University), Young-Tak Kim (Yeungnam University)</i>		

13:00 - 15:00	Main Session 2 Chair: Moayad Aloqaily	Webinar Room 3
Context and Location Awareness in Eco-Driving Recommendation <i>André Campolina (UFMG), Azzedine Boukerche (SITE - University of Ottawa), Antonio Alfredo Ferreira Loureiro (UFMG)</i>		
Model-based Design of a Roadside Unit for Emergency and Disaster Management <i>Nur Hilal (Bogazici University), Arda Yurdakul (Bogazici University)</i>		
Adjusted Location Privacy Scheme in VANET Safety Applications <i>Ruqayah Al-ani (Liverpool John Moores University)</i>		
A Dynamic Decentralized Traffic Light Management System: A TCP Inspired Approach <i>Omar Hiari (German Jordanian University), Ibraheem Nofal (German Jordanian University)</i>		
Blockchain Solution for IoT-based Critical Infrastructures: Byzantine Fault Tolerance <i>Omar AlFandi (Zayed University), Safa Otoum (University of Ottawa), Yaser Jararweh (JUST)</i>		
UAV-Assisted Vehicular Communication for Densely Crowded Environments <i>Ouns Bouachir (College of Technological Innovation, Zayed University), Ismaeel Al Ridhawi (Kuwait College of Science and Technology), Omar AlFandi (Zayed University), Haythem Bany Salameh (Al Ain University), Moayad Aloqaily (Gnowit Inc.)</i>		

ITCVT organizers

- Moayad Aloqaily, xAnalytics Inc., Canada
- Öznur Özkasap, Koç University, Istanbul, Turkey
- Xiaochun Cheng, Middlesex University, London

ITCVT TPC members and reviewers

- Nicolas Nicolaou, Algolysis Ltd, Limassol, Cyprus
- Dimitris Sakavalas, Boston College, USA
- Saptarni Kumar, Boston College, USA
- Chung-Wei Lin, National Taiwan University, Taiwan
- Muntasir Raihan Rahman, Bell Labs, USA
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- Bashar Al shboul, Hashemite University, Jordan
- Basheer Al-Duwairi, Jordan University of Science and Technology, Jordan
- Beakal G. Assefa, Addis Ababa Science and Technology University, Ethiopia
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- Dima Alhadidi, University of Windsor, Canada
- Enis Karaarslan, Muğla Sıtkı Koçman University, Turkey
- Farhan Ahmad, University of Derby, UK
- Hassaan Khaliq, National University of Science and Technology (NUST), Pakistan

- Reza Shokri Kalan, Ege University, Turkey
- Yazan Otoum, University of Ottawa, Canada
- Ibrahim AbuAlhaol, Carleton University, Canada
- Ilir Capuni, University of New York Tirana, Albania
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- Jamal Riffi, FSDM Fez, Morocco
- Kalpana Singh, IRT SystemX, France
- Lewis Tseng, Boston College, USA
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- Önder Gürçan, CEA LIST, France
- Onur Altintas, Toyota Motor North America R&D
- Pavel Skrabanek, Brno University of Technology, Czech Republic
- Pelin Angın, Middle East Technical University, Turkey
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- Safa Otoum, University of Ottawa, Canada
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- Sedjelmaci Hichem, Orange Labs, France
- Seyhan Ucar, Toyota Motor North America R&D
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- Şule Yıldırım Yayılğan, Norwegian University of Science and Technology, Norway
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- Yahya Hassanzadeh, Dapper Labs, British Columbia, Canada
- Yaser Jararweh, Duquesne University, USA
- Ying-Dar Lin, National Chiao Tung University (NCTU), Taiwan
- Yousaf Bin Zikria, Yeungnam University, South Korea

Workshop on Management for Industry 4.0

Monday, April 20, 2020

13:30 - 15:30	WS Industry 4.0 Chair: Jerker Delsing	Webinar Room 2
Service and Agent based System Architectures for Industrie 4.0 Systems <i>Hartwig Baumgaertel (University of Applied Sciences Ulm), Richard Verbeet (University of Applied Sciences Ulm)</i>		
The Service Metrics and Performance Analysis of Internet Time Service <i>Jing Ling (Beijing University of Posts and Telecommunications), Guochu Shou (Beijing University of Posts and Telecommunications), Mengjie Guo (Beijing University of Posts and Telecommunications), Yihong Hu (University of Posts and Telecommunications)</i>		
Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 <i>Alain Perez (Mondragon University), Miguel Angel Iñigo (MONDRAGON Corporation), Felix Larrinaga (Mondragon University), Alain Porto (IDEKO S.COOP.), Javier Cuenca (Mondragon University), Blanca Kremer (IKERLAN Technology Research Center)</i>		
From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain <i>Géza Kulcsár (IncQuery Labs), Kadosa Koltai (IncQuery Labs), Szvetlin Tanyi (AITIA International Inc.), Balint Peceli (evopro Innovations), Akos Horvath (IncQuery Labs), Zoltan Micskei (Budapest University of Technology and Economics), Pal Varga (Budapest University of Technology and Economics)</i>		
16:00 - 17:00	WS Industry 4.0 Chair: Markus Tauber	Webinar Room 2
An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 <i>Gianvito Urgese (Politecnico di Torino), Paolo Azzoni (Eurotech), Jan van Deventer (Luleå University of Technology), Jerker Delsing (Lulea University of Technology), Enrico Macii (Politecnico di Torino)</i>		
Leveraging Eclipse IoT in the Arrowhead Framework <i>Lukas Römer (Bosch.IO), Sven Erik Jeroschewski (Bosch.IO), Johannes Kristan (Bosch.IO)</i>		
THE KPP ECOSYSTEM AND ITS SMART PRODUCTION PLANNING SERVICES <i>Benjamin Gernhardt (University of Hagen), Matthias Hemmje (University of Hagen), Tobias Vogel (FernUniversität Hagen)</i>		

Workshop on Management for Industry 4.0 organizers

- Giancarlo Fortino, University of Calabria
- Hans-Peter Bernhard Silicon Austria Labs / Johannes Kepler University Linz
- Jerker Delsing, Lulea University of Technology
- Markus Tauber, University of Applied Sciences Burgenland
- Matthias L. Hemmje, University of Hagen, Germany

Workshop on Management for Industry 4.0 TPC members and reviewers

- Andrea Tundis Germany, Technical University of Darmstadt, Germany
- Catalin Meirosu, Ericsson, Sweden
- Cristina Paniagua, Lulea University of Technology, Sweden
- Erkin Kirdan, Technology Technical University of Munich, Germany
- Giancarlo Fortino, University of Calabria, Italy
- Giuliano Casale, Imperial College London, Great Britain
- Giuseppe Sarnè, University of Reggio Calabria, Italy
- Hans-Peter Bernhard, Silicon Austria Labs / Johannes Kepler University Linz, Austria
- Igor Ivkic, Lancaster University, Great Britain
- Ishan Vaishnavi, Huawei ERC, Germany
- Jaime Garcia Represa, Lulea University of Technology, Sweden
- James Hong, POSTECH, Republic of Korea
- Jason Quinlan, University College Cork, Ireland
- Jerker Delsing, Lulea University of Technology, Sweden
- Marc-Oliver Pahl, IMT Atlantique, France
- Markus Tauber, University of Applied Sciences Burgenland, Austria
- Matthias Hemmje, University of Hagen, Germany
- Mauro Tortonesi, University of Ferrara, Italy
- Pal Varga, Budapest University of Technology and Economics, Hungary
- Shihabur Chowdhury, University of Waterloo, Canada
- Silia Maksuti, University of Applied Sciences Burgenland, Austria

International Workshop on Orchestration for Software Defined Infrastructures (O4SDI)

Keynote: Towards a standardized transport slicing architecture in operator networks

Luis Miguel Contreras Murillo , 24, April 2020, 08:30-09:00 (Webinar Room 2)



Biography: Luis M. Contreras (<http://lmcontreras.com/>) earned a Telecom Engineer degree at the Universidad Politécnica of Madrid (1997), and holds an M. Sc. on Telematics from the Universidad Carlos III of Madrid (2010). Since August 2011 he is part of Telefónica I+D Telefónica Global CTO unit, working on 5G, SDN, virtualization, transport networks and their interaction with cloud and distributed services, as well as on interconnection topics. He is part-time lecturer at the Universidad Carlos III of Madrid. Before the position in Telefónica he worked in Alcatel and Orange Spain. He is actively involved in research and innovation activities, with 60+ papers published in relevant journals, magazines and conferences, being regular speaker at reputed academic and industrial events. He has participated on the projects funded by the EU and the ESA. Currently he is working on the EU H2020 projects 5GROWTH and 5G-EVE, and the EU-TW 5G-DIVE. On the standardization arena, he is active contributor to IETF (authoring five RFCs), ETSI, ITU-T and ONF.

Abstract: 5G has implied the generalization of several new concepts in the telecom industry, being network slicing one of the more notable of them. Now that 5G networks are starting to be operationally available, the concept of network slicing is also required to be made functional and operational. Transport networks, as part of the underlying supportive technologies, should also face the challenge of providing slices. There has been much research in the area, developing novel concepts and architectures, but there is yet a lack of standardized ways of requesting, operating and assure transport slices, something essential for telecom operators. This talk presents the on-going efforts in IETF for defining transport slices, how the concept can be extended to other services in addition to 5G, and how this work can facilitate the introduction of new innovations leveraging on it.

Technical Sessions

Friday, April 24, 2020

09:00 - 11:30	Orchestration for Software-Defined Infrastructures (O4SDI) Chair: Molka Gharbaoui	Webinar Room 2
COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds <i>George Papathanail (University of Macedonia), Ioakeim Fotoglou (University of Macedonia), Christos Demertzis (University of Macedonia), Angelos Pentelas (University of Macedonia), Kyriakos Sgouromitis (University of Macedonia), Panagiotis Papadimitriou (University of Macedonia), Dimitrios Dechouniotis (National Technical University of Athens), Symeon Papavassiliou (National Technical University of Athens)</i>		
SLA Driven Automatic Fault-Recovery Scheduling Method with Cost Evaluation <i>Atsushi Takada (NTT Corporation), Toshihiko Seki (NTT Corporation), Kyoko Yamagoe (NTT Corporation)</i>		
Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem <i>Mario Di Mauro (University of Salerno), Giovanni Galatro (University of Salerno), Maurizio Longo (University of Salerno), Fabio Postiglione (University of Salerno), Marco Tambasco (Consortium of Research on Telecommunications)</i>		
11:00 - 12:00	Orchestration for Software-Defined Infrastructures (O4SDI) Chair: Federica Paganelli	Webinar Room 2
RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network <i>Haoyu Liu (Zhejiang University), Chongrong Fang (Zhejiang University), Yining Qi (Zhejiang University), Jian Bai (Alibaba), Shaozhe Wang (Alibaba), Xiong Xiao (Alibaba), Daxiang Kang (Alibaba), Peng Cheng (Zhejiang University)</i>		
Programmable and Automated Deployment of Tenant-Managed SDN Network Slices <i>Molka Gharbaoui (CNIT), Barbara Martini (CNIT), Piero Castoldi (Scuola Superiore Sant'Anna)</i>		

O4SDI co-chairs

- Stuart Clayman, University College London, UK
- Federica Paganelli, University of Pisa, Italy
- Molka Gharbaoui, CNIT, Pisa, Italy

O4SDI TPC members and reviewers

- Agathe Blaise, LIP6, UPMC / Thales, France
- Barbara Martini, CNIT, Italy
- Daniele Tarchi, University of Bologna, Italy
- Flavio Esposito, Saint Louis University, USA
- Francesco Tusa, University College of London, Great Britain
- Fulvio Valenza, Politecnico di Torino, Italy
- Gianluca Davoli, University of Bologna, Italy
- Ishan Vaishnavi, Huawei Technologies Düsseldorf GmbH, Germany
- Joan Serrat, Universitat Politècnica de Catalunya, Spain
- Jordi Ortiz, University of Murcia, Spain

- Marinos Charalambides, University College London, Great Britain
- Muge Sayit, Ege University, Turkey
- Panagiotis Papadimitriou, University of Macedonia, Greece
- Reza Tourani, Saint Louis University, USA
- Sarantis Kalafatidis, University of Macedonia, Greece
- Sotiris Skaperas, University of Macedonia, Greece
- Stefano Forti, University of Pisa, Italy
- Vatche Ishakian, Bentley University, USA
- Walter Cerroni, University of Bologna, Italy

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Abdurhman Albasir, University of Waterloo	Unsupervised Detection of Anomalous Behavior in Wireless Devices based on Auto-Encoders (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Abin Thomas, Fondazione Bruno Kessler	aiOS: An Intelligence Layer for SD-WLANs (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Abulfazl Zakeri, Tarbiat Modares University	Joint Resource and Admission Management for Slice-enabled Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Adrien Hemmer, National Institute for Research in Computer Science and Automation (Inria)	A Process Mining Approach for Supporting IoT Predictive Security (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); A Process Mining Tool for Supporting IoT Security (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Agathe Blaise, LIP6, UPMC / Thales	BotFP: FingerPrints Clustering for Bot Detection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Aiko Pras, University of Twente	DDoS Mitigation: A Measurement-Based Approach (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Distributed DDoS Defense: A collaborative Approach at Internet Scale (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Towards Adversarial Resilience in Proactive Detection of Botnet Domain Names by using MTD (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00); MikroTik Devices Landscape, Realistic Honeypots, and Automated Attack Classification (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Akihiro Nakao, The University of Tokyo	Layer-Integrated Edge Distributed Data Store for Real-time and Stateful Services (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00); Edge Concierge: Democratizing Cost-Effective and Flexible Network Operations using Network Layer AI at Private Network Edges (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Akio Watanabe, NTT	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)

Akos Horvath, IncQuery Labs	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Alain Perez, Mondragon University	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Alain Porto, IDEKO S.COOP.	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Alan Plascinkas, The University of Edinburgh	Towards Efficient and Adaptable Monitoring of Softwarized Mobile Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Alberto Compagno, Cisco Systems	A Proactive Cache Privacy Attack on NDN (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Alberto Leon-Garcia, University of Toronto	Towards a Client-Centric QoS Auto-Scaling System (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Alberto Schaeffer-Filho, Federal University of Rio Grande do Sul (UFRGS)	PRIME: Programming In-Network Modular Extensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Alemayehu Desta, ESIEE Paris	Blockchain Based Decentralized Framework for Energy Demand Response Marketplace (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Alessandro Morelli, Florida Institute for Human and Machine Cognition (IHMC)	Value of Information based Optimal Service Fabric Management for Fog Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
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Alex Galis, University College London	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Alexander Clemm, Futurewei	High-Precision Latency Forwarding over Packet-Programmable Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00); A Network Emulator for High-Precision Latency Forwarding over Packet-Programmable Networks (Demo Paper) (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Ali ElMoursy, University of Sharjah	A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Ali Marandi, University of Bern	Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Alisson Medeiros, Universidade Federal do Rio Grande do Norte	Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Alvin Valera, Victoria University of Wellington	ElasticWISP ? Energy-Proportional WISP Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)

Amadeu Nascimento Junior, Ericsson Research	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Amina Boubendir, Orange Labs	Network Slice Management on top of ONAP (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Amr Rizk, Uni Ulm	P4STA: High Performance Packet Timestamping with Programmable Packet Processors (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Microbursts in Software and Hardware-based Traffic Load Generation (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
An Wang, Case Western Reserve University	AccuPIPE: Accurate Heavy Flow Detection in the Data Plane Using Programmable Switches (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Anan Sawabe, NEC Corporation	Edge Concierge: Democratizing Cost-Effective and Flexible Network Operations using Network Layer AI at Private Network Edges (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Anat Bremler-Barr, Interdisciplinary Center Herzliya	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); IoT or Not: Identifying IoT Devices in a Short TimeScale (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: NFV-based IoT Security at the ISP Level (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Anderson da Silva, Universidade Federal do Rio Grande do Sul	PRIME: Programming In-Network Modular Extensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Andre Beltrami Rocha, UFSCAR	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Andre Braga Reis, Instituto de Telecomunicações	Physical Layer Anomaly Detection Mechanisms in IoT Networks (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Andrea Fendt, University of Augsburg	End-to-End Mobile Network Slice Embedding Leveraging Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Andreas Johnsson, Ericsson Research	Predicting Round-Trip Time Distributions in IoT Systems using Histogram Estimators (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Andreas Mitschele-Thiel, Ilmenau University of Technology	A scalable SON coordination framework for 5G (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
André Campolina, UFMG	Context and Location Awareness in Eco-Driving Recommendation (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Angelos Pentelas, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Network Service Embedding with Multiple Resource Dimensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Anna Sperotto, University of Twente	DDoS Mitigation: A Measurement-Based Approach (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Distributed DDoS Defense: A collaborative Approach at Internet Scale (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Towards Adversarial Resilience in Proactive Detection of Botnet Domain Names by using MTD (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Anthony Lambert, Orange Labs	Allocating and Scheduling Measurement Applications (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Antonio Alfredo Ferreira Loureiro, UFMG	Context and Location Awareness in Eco-Driving Recommendation (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Antonio Cianfrani, University of Rome Sapienza	Going Beyond DiffServ in IP Traffic Classification (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Antonio Garrido, UCLM	Improvements to Multimedia Content Delivery over IEEE 802.11 Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Aoki Shogo, Waseda University	Few-shot Learning for eNodeB Performance Metric Analysis for Service Level Assurance in LTE Networks (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Aravindh Raman, King's College London	Is it time for a 999-like (or 112/911) system for critical information services? (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Arda Yurdakul, Bogazici University	Model-based Design of a Roadside Unit for Emergency and Disaster Management (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Ariel Liebman, Monash University	Inherent Vulnerability of Demand Response Optimisation against False Data Injection Attacks in Smart Grids (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Asif Mehmood, Jeju National University	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Atsushi Kamimoto, Osaka City University	Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Atsushi Takada, NTT Corporation	SLA Driven Automatic Fault-Recovery Scheduling Method with Cost Evaluation (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Attila Hilt, Nokia	Capacity Expansion and Modernization of Core Network Elements Running on ATCA Platform (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Augusto Neto, Universidade Federal do Rio Grande do Norte - UFRN	Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Avraham Shalev, IDC	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Azam Beg, UAE University	AI Enabled Resource Allocation in Future Mobile Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Azzedine Boukerche, SITE - University of Ottawa	Context and Location Awareness in Eco-Driving Recommendation (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Bailin Wang, Beijing University of Posts and Telecommunications	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Balakrishna Prabhu, LAAS-CNRS	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Balint Peceli, evopro Innovations	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Barbara Martini, CNIT	Programmable and Automated Deployment of Tenant-Managed SDN Network Slices (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Basheer Al-Duwairi, Jordan University of Science & Technology	Preventing DDoS attacks in Path Identifiers-Based Information Centric Networks (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Behzad Akbari, University of Tarbiat Modares	Joint Resource and Admission Management for Slice-enabled Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Benedek Schultz, Nokia Bell Labs	Deep Clustering of Mobile Network Data with Sparse Autoencoders (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Benedikt Jaeger, Technical University of Munich	Online Monitoring of TCP Throughput Limitations (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Benjamin Burr, Carleton University	On the Detection of Persistent Attacks using Alert Graphs and Event Feature Embeddings (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Benjamin Gernhardt, University of Ha-gen	THE KPP ECOSYSTEM AND ITS SMART PRODUCTION PLANNING SERVICES (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Benoit Donnet, Universite de Liege	All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Berkay Koksai, EURECOM	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Bernd Zeidler, University of Würzburg	Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Bernhard Bauer, University of Augsburg	End-to-End Mobile Network Slice Embedding Leveraging Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Bernhard Haslhofer, AIT Austrian Institute of Technology	All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)

Blanca Kremer, IKERLAN Technology Research Center	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Bo Jin, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Bo Ma, The University of Sheffield	Modelling Mobile Traffic Patterns Using A Generative Adversarial Neural Networks (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Boris Koldehofe, TU Darmstadt	P4STA: High Performance Packet Timestamping with Programmable Packet Processors (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Flexible Content-based Publish/Subscribe over Programmable Data Planes (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00); Microbursts in Software and Hardware-based Traffic Load Generation (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Breno de França, UNICAMP	P4 Switch Code Data Flow Analysis: Towards Stronger Verification of Forwarding Plane Software (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Bruno Rodrigues, Communication Systems Group CSG@IfI, University of Zurich	PleBeuS: a Policy-based Blockchain Selection Framework (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Bruno Volckaert, Ghent University - imec, IDLab	Towards delay-aware container-based Service Function Chaining in Fog Computing (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Burkhard Stiller, University of Zürich	BIIT: Standardization of Blockchain-based IIoT Systems in the I4 Era (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15); PleBeuS: a Policy-based Blockchain Selection Framework (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Caner Kilinc, Ericsson AI	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Carlos Donato, University of Antwerp - IMEC	A Dynamic Spectrum Footprint Adaptation Framework for Collaborative Spectrum Sharing (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Carlos Senna, Instituto de Telecomunicações	Distributed Real-time Forecasting Framework for IoT Network and Service Management (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Carol Fung, Virginia Commonwealth University	A Privacy-Aware Collaborative DDoS Defense Network (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00); Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Carsten Rudolph, Monash University	Inherent Vulnerability of Demand Response Optimisation against False Data Injection Attacks in Smart Grids (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Cedric Westphal, UCSC	LoCHiP: A Distributed Collaborative Cache Management Scheme at the Network Edge (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)

Celio Albuquerque, UFF	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Celso Cesila, UNICAMP	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Cesare Stefanelli, University of Ferrara	Value of Information based Optimal Service Fabric Management for Fog Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Chao Sun, Hua Wei	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Charalampos Rotsos, Lancaster University	?BGP: rethinking BGP programmability (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Che Zhang, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Cheng Xu, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Cheng Zhang, Waseda University	Data Quality Maximization for Mobile Crowdsensing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Chenhao Jia, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Chin Lam Eng, Ericsson Japan	Few-shot Learning for eNodeB Performance Metric Analysis for Service Level Assurance in LTE Networks (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Chongrong Fang, Zhejinag University	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Choong Seon Hong, Kyung Hee University	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Christian Dietz, Bundeswehr Univerity Munich	Towards Adversarial Resilience in Proactive Detection of Botnet Domain Names by using MTD (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Christian Doerr, Delft University of Technology	Discovering Collaboration: Unveiling Slow, Distributed Scanners based on Common Header Field Patterns (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Christian Esteve Rothenberg, University of Campinas - UNICAMP	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)

Christian Mannweiler, Nokia Bell Labs	End-to-End Mobile Network Slice Embedding Leveraging Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Christian Moldovan, University of Würzburg	Optimizing HAS for 360-Degree Videos (AnNet, Monday, April 20, 2020, 14:45 - 15:45); Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Christian Scholten, University of Twente	MikroTik Devices Landscape, Realistic Honey pots, and Automated Attack Classification (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Christian Schulte, KTH Royal Institute of Technology	Efficient Real-Time Traffic Generation for 5G RAN (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Christine Morin, INRIA	Automated Keyword Extraction from One-day Vulnerabilities at Disclosure (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Christofer Flinta, Retired from Ericsson Research	Predicting Round-Trip Time Distributions in IoT Systems using Histogram Estimators (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Christoph Gärtner, TU Darmstadt	Flexible Content-based Publish/Subscribe over Programmable Data Planes (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Christos Demertzis, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Chuang Wang, Huawei Technologies Co., Ltd.	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Chun-Xiang Chen, Prefectural University of Hiroshima	An Empirical Study of the Effectiveness of Fallback on the ECN (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Claris Castillo, Startup	A Cloud-Agnostic Framework to Enable Cost-Aware Scheduling of Applications in a Multi-Cloud Environment (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Clément Elbaz, Univ Rennes, Inria, CNRS, IRISA	Automated Keyword Extraction from One-day Vulnerabilities at Disclosure (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Clément Joly, University of Luxembourg	The rise of eBPF for non-intrusive performance monitoring (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Constantin Serban, Perspecta Labs	Attack-Resistant Routing : a Framework for Enhancing Routing Robustness in Wireless Ad-hoc Networks (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Craig Shue, Worcester Polytechnic Institute	Community Cleanup: Incentivizing Network Hygiene via Distributed Attack Reporting (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Cristian Hesselman, SIDN Labs	Protecting Home Networks From Insecure IoT Devices (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Csaba Simon, BME/TMIT	Adaptive scaling of Kubernetes pods (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Csongor Tamás, Budapest University of Technology and Economics	Clustering IoT Malware based on Binary Similarity (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)

Cunming Liang, Intel Corp	OVS-DPDK Port Mirroring via NIC Offloading (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Cyril Cassagnes, University of Luxembourg	The rise of eBPF for non-intrusive performance monitoring (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Damu Ding, Fondazione Bruno Kessler (FBK) & University of Bologna	Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4 (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Dan Pan, Telenor Sverige AB	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Daniel Ficzer, Budapest University of Technology and Economics	Practical 5G KPI Measurement Results on a Non-Standalone Architecture (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00); User Group Behavioural Pattern in a Cellular Mobile Network for 5G Use-cases (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Daniel Lakic, University of Zürich (UZH)	PleBeuS: a Policy-based Blockchain Selection Framework (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Daniel Mossé, University of Pittsburgh	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Daniele Brighenti, Politecnico di Torino	Automated optimal firewall orchestration and configuration in virtualized networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Daphné Tuncer, Imperial College London	Unveiling the Features of Network Dynamics: a Data-Oriented Approach (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30); LogiSig: Automatic Interaction Detection in Software-based Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
David Hay, Hebrew University	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Moving Target Defense for Virtual Network Functions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: NFV-based IoT Security at the ISP Level (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
David Hutchison, Lancaster University	?BGP: rethinking BGP programmability (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Davide Aureli, University of Rome 1 & Cnam	Going Beyond DiffServ in IP Traffic Classification (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Daxiang Kang, Alibaba	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Di Jin, Beijing University of Posts and Telecommunications	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Diarmuid Corcoran, Ericsson / KTH	Efficient Real-Time Traffic Generation for 5G RAN (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)

Diego Fernando Preciado Rojas, Technische Universität Ilmenau	A scalable SON coordination framework for 5G (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Diego Lopez, Telefonica I+D	Exploiting Case Based Reasoning to Automate Management of Network Slices (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Diego Passos, Universidade Federal Fluminense	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Dimitrios Dechouniotis, National Technical University of Athens	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Dimitrios Tsilimantos, Mathematical and Algorithmic Sciences Lab, Paris Research Center, Huawei Technologies France SASU	Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Diogo Ferreira, Universidade de Aveiro	Distributed Real-time Forecasting Framework for IoT Network and Service Management (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Diogo da Silva, UFRGS	P4 Switch Code Data Flow Analysis: Towards Stronger Verification of Forwarding Plane Software (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Diwakar Krishnamurthy, Univ of Calgary	CONTRAST: Container-based Transcoding for Interactive Video Streaming (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Domenico Siracusa, Fondazione Bruno Kessler (FBK)	Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4 (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Donatos Stavropoulos, University of Thessaly	Matching Theory Application for Efficient Allocation of Indivisible Testbed Resources (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); On the Implementation of Matching Theory Based Resource Allocation in Networking Testbeds (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Dorottya Papp, Budapest University of Technology and Economics	Clustering IoT Malware based on Binary Similarity (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Duncan Cameron, Victoria University of Wellington	ElasticWISP ? Energy-Proportional WISP Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Dwi Hartati Izaldi, URECOM, France	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Dávid Balla, Budapest University of Technology and Economics	Adaptive scaling of Kubernetes pods (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Eder John Scheid, University of Zurich (UZH)	PleBeuS: a Policy-based Blockchain Selection Framework (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Edmundo Madeira, UNICAMP	Reliable Network Slices based on Elastic Network Resource Demand (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Edwin Verplanke, Intel Corp	OVS-DPDK Port Mirroring via NIC Offloading (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)

Eiji Oki, Kyoto University	Unavailability-aware Shared Virtual Backup Allocation Model for Middle-boxes (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Network Service Mapping and Scheduling under Uncertain Processing Time (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00); Demonstration of Network Service Header Based Service Function Chain Application with Function Allocation Model (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Eleonora Losiouk, University of Padova	A Proactive Cache Privacy Attack on NDN (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Elmer Lastdrager, SIDN Labs	Protecting Home Networks From Insecure IoT Devices (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Emeka Obiodu, King's College London	Is it time for a 999-like (or 112/911) system for critical information services? (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Emil Lupu, Imperial College	A framework for automatic firewalls configuration via argumentation reasoning (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Enge Song, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Enrico Macii, Politecnico di Torino	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Erik Elmroth, Elastisys and Umea University	MicroRCA: Root Cause Localization of Performance Issues in Microservices (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00)
Erisa Karafili, University of Southampton	A framework for automatic firewalls configuration via argumentation reasoning (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Eryk Schiller, University of Zurich	BIIT: Standardization of Blockchain-based IIoT Systems in the I4 Era (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Estefania Coronado, Fondazione Bruno Kessler	Improvements to Multimedia Content Delivery over IEEE 802.11 Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); aiOS: An Intelligence Layer for SD-WLANs (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: Deploying Transparent Applications at the Network Edges with LightEdge (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Ezzeldin Tahoun, University of Waterloo	ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Fabio Postiglione, University of Salerno	Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Performance Management of Softwarized IP Multimedia Subsystem (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Fabrice Guillemin, Orange Labs	Network Slice Management on top of ONAP (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)

Fan Jiang, University of North Carolina - Chapel Hill	A Cloud-Agnostic Framework to Enable Cost-Aware Scheduling of Applications in a Multi-Cloud Environment (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Faqir Zarrar Yousaf, NEC Laboratories, Europe GmbH	Demo: Deploying Transparent Applications at the Network Edges with LightEdge (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Faruk Catal, Fraunhofer FOKUS	Industrial Grade Methodology for Firewall Simulation and Requirements Verification (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Felix Larrinaga, Mondragon University	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Feng Lin, Fuzhou Institute for Data Technology	Interference Cancellation for Software Defined Impulse Radio by Template Design (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Fernanda Bonetti, Federal University of Rio Grande do Sul	PRIME: Programming In-Network Modular Extensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Filip De Turck, Ghent University - imec	From 2D to Next Generation VR/AR Videos: Enabling Efficient Streaming via QoE-aware Mobile Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); Towards delay-aware container-based Service Function Chaining in Fog Computing (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Filippo Poltronieri, University of Ferrara	Value of Information based Optimal Service Fabric Management for Fog Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Florian Wamser, University of Wuerzburg	Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Florian Wilkens, Universität Hamburg	Scan Correlation - Revealing distributed scan campaigns (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Francesca Fossati, CNAM	Decentralization of 5G slice resource allocation (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Francesco Tusa, University College of London	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Frank Brockners, Cisco Systems	Unsupervised Feature Selection for Telemetry Event Description (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Frank Loh, University of Würzburg	Optimizing HAS for 360-Degree Videos (AnNet, Monday, April 20, 2020, 14:45 - 15:45); Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Franklin Liu, UIUC	AccuPIPE: Accurate Heavy Flow Detection in the Data Plane Using Programmable Switches (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)

Frederik Hauser, University of Tuebingen	xRAC: Execution and Access Control for Restricted Application Containers on Managed Hosts (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00); Demo: Execution and Access Control for Restricted Application Containers on Managed Hosts (xRAC) (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Fridolin Siegmund, TU Darmstadt	P4STA: High Performance Packet Timestamping with Programmable Packet Processors (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Fujun He, Kyoto University	Unavailability-aware Shared Virtual Backup Allocation Model for Middle-boxes (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Network Service Mapping and Scheduling under Uncertain Processing Time (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00); Demonstration of Network Service Header Based Service Function Chain Application with Function Allocation Model (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Fulvio Valenza, Politecnico di Torino	A framework for automatic firewalls configuration via argumentation reasoning (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00); Automated optimal firewall orchestration and configuration in virtualized networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Fábio Verdi, Universidade Federal de São Carlos	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30); Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Gabi Dreö Rodosek, University of Federal Armed Forces, Munich	Towards Adversarial Resilience in Proactive Detection of Botnet Domain Names by using MTD (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Gabor Soos, Budapest University of Technology and Economics	Practical 5G KPI Measurement Results on a Non-Standalone Architecture (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00); User Group Behavioural Pattern in a Cellular Mobile Network for 5G Use-cases (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Gabriel Galdino, Universidade Estadual do Ceará	Reliable Network Slices based on Elastic Network Resource Demand (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Gafnit Avraham, IDC	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Gautam Raj Mode, University of Missouri-Columbia	Impact of False Data Injection Attacks on Deep Learning Enabled Predictive Analytics (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Gene Tsudik, UC Irvine	A Proactive Cache Privacy Attack on NDN (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Genichi Mori, KDDI Research, Inc.	Comparative Analysis of Network Fault Classification Using Machine Learning (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)

Geoffrey Salmon, RANK Software	On the Detection of Persistent Attacks using Alert Graphs and Event Feature Embeddings (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Georg Carle, Technical University of Munich	Hardening X.509 Certificate Issuance using Distributed Ledger Technology (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00); Online Monitoring of TCP Throughput Limitations (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Environment Modeling and Abstraction of Network States for Cognitive Functions (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15); 5G QoS: Impact of Security Functions on Latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45); Deep Clustering of Mobile Network Data with Sparse Autoencoders (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
George Papathanail, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Network Service Embedding with Multiple Resource Dimensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Ghulam Qadir Mughal, Superior University Lahore	AI Enabled Resource Allocation in Future Mobile Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Gi Kim, Perspecta Labs	Attack-Resistant Routing : a Framework for Enhancing Routing Robustness in Wireless Ad-hoc Networks (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Gianluca Reali, University of Perugia	Simplification of the design, deployment, and testing of 5G vertical services (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Gianvito Urgese, Politecnico di Torino	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Giovanni Galatro, University of Salerno	Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Performance Management of Softwarized IP Multimedia Subsystem (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Giuseppe Di Battista, Roma Tre University	Megalos: A Scalable Architecture for the Virtualization of Network Scenarios (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Guanwen Li, Huawei Technologies Co., Ltd.	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Guido Marchetto, Politecnico di Torino	Automated optimal firewall orchestration and configuration in virtualized networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Guo Hui, Beijing University of Posts and Telecommunications	A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)

Guochu Shou, Beijing University of Posts and Telecommunications	The Service Metrics and Performance Analysis of Internet Time Service (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Gábor Járó, Nokia	Capacity Expansion and Modernization of Core Network Elements Running on ATCA Platform (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Géza Kulcsár, IncQuery Labs	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Hadia El-Hennawy, Ain Shams University	A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Hailong Yang, Beihang University	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Haim Levy, IDC	IoT or Not: Identifying IoT Devices in a Short TimeScale (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Hakim Badis, University of Paris-Est Marne-La-Vallée	Blockchain Based Decentralized Framework for Energy Demand Response Marketplace (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Hammad Kabir, Aalto University, Finland	Implementing a Security Policy Management for 5G Customer Edge Nodes (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Hang Liu, The Catholic University of America	AccuPIPE: Accurate Heavy Flow Detection in the Data Plane Using Programmable Switches (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Hantao Guo, Beijing University of Posts and Telecommunications	Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Hanyu Wei, Hua Wei	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Hao Wang, Hua Wei	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Haoqiu Huang, China Aerospace Science and Industry Corporation Limited Network Information Department	A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Haoyu Liu, Zhejiang University	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Harald Baier, University of Applied Sciences Darmstadt	Distributed DDoS Defense:A collaborative Approach at Internet Scale (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00)
Harm Griffioen, Technical University of Delft	Discovering Collaboration: Unveiling Slow, Distributed Scanners based on Common Header Field Patterns (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)

Hartwig Baumgaertel, University of Applied Sciences Ulm	Service and Agent based System Architectures for Industrie 4.0 Systems (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Haythem Bany Salameh, Al Ain University	UAV-Assisted Vehicular Communication for Densely Crowded Environments (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Hazem Soliman, RANK Software	On the Detection of Persistent Attacks using Alert Graphs and Event Feature Embeddings (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Heng Liu, China Electronics Cyberspace Great Wall Co., Ltd, Beijing	HGDom: Heterogeneous Graph Convolutional Networks for Malicious Domain Detection (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Hengbin An, Beijing University of Posts and Telecommunications	Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Hiroki Ikeuchi, NTT Corporation	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Hitoshi Asaeda, National Institute of Information and Communications Technology	Exploiting Case Based Reasoning to Automate Management of Network Slices (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Holger Kinkelin, Technische Universität München	Hardening X.509 Certificate Issuance using Distributed Ledger Technology (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Hong Xu, City University of Hong Kong	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Hyundong Hwang, Yeungnam University	Management of Smart Vehicular Handovers in Overlapped V2X Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Ibraheem Nofal, German Jordanian University	A Dynamic Decentralized Traffic Light Management System: A TCP Inspired Approach (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Igor Kotenko, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences (SPIIRAS)	Graph-based evaluation of probability of disclosing the network structure by targeted attacks (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Ihab Zhaika, Hebrew University	Demo: NFV-based IoT Security at the ISP Level (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Ikuo Oka, Osaka City University	A Device Identification Method Based on Combination of Multiple Information (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Ile Cepilov, University of Zurich	BIIT: Standardization of Blockchain-based I2oT Systems in the I4 Era (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Iman Akbari, University of Waterloo	ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Imed Hadj-Kacem, Orange Labs.	Anomaly prediction in mobile networks : A data driven approach for machine learning algorithm selection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Imen Grida ben yahia, Orange labs	Learning a Configurable Deployment Descriptors Model in NFV (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Ina Schieferdecker, Fraunhofer FOKUS	Industrial Grade Methodology for Firewall Simulation and Requirements Verification (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Ioakeim Fotoglou, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Network Service Embedding with Multiple Resource Dimensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Iris Adam, Nokia	5G QoS: Impact of Security Functions on Latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Isabel Amigo, IMT Atlantique	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Isabelle Chrisment, TELECOM Nancy - Université de Lorraine	A Process Mining Approach for Supporting IoT Predictive Security (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); A Process Mining Tool for Supporting IoT Security (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Ismaeel Al Ridhawi, Kuwait College of Science and Technology	UAV-Assisted Vehicular Communication for Densely Crowded Environments (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
J.J. Garcia-Luna-Aceves, University of California at Santa Cruz	LoCHiP: A Distributed Collaborative Cache Management Scheme at the Network Edge (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Jaime Galán-Jiménez, University of Extremadura	A Machine Learning-Based Framework to Estimate the Lifetime of Network Line Cards (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Jakob Struye, University of Antwerp - IMEC	A Dynamic Spectrum Footprint Adaptation Framework for Collaborative Spectrum Sharing (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Jalolliddin Yusupov, Politecnico di Torino	Automated optimal firewall orchestration and configuration in virtualized networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Jan van Deventer, Luleå University of Technology	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Jana Komarkova, Masaryk University	Decision Support for Mission-Centric Network Security Management (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Janne Ali-Tolppa, Nokia Networks	Mobility and QoS Prediction for Dynamic Coverage Optimization (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Jaume Rius i Riu, Telenor Sverige AB	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Javier Baliosian, Universitat Politècnica de Catalunya	Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Javier Baliosian, University of the Republic	Resource Allocation and Management Techniques for Network Slicing in WiFi Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30); Computing at the Edge: But, what Edge? (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Javier Cuenca, Mondragon University	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Javier Jose Rivera, Jeju National University	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Jawwad Ahmed, Ericsson Research	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Jelte Jansen, SIDN Labs	Protecting Home Networks From Insecure IoT Devices (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Jeremias Blending, Barefoot Networks	P4STA: High Performance Packet Timestamping with Programmable Packet Processors (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Jerker Delsing, Lulea University of Technology	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Jeroen Famaey, University of Antwerp - imec	Multi-technology Management of Heterogeneous Wireless Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Jessica Steinberger, Central Office for Information Technology in the Security Sector	Distributed DDoS Defense: A collaborative Approach at Internet Scale (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00)
Jiahai Yang, Tsinghua University	HGDom: Heterogeneous Graph Convolutional Networks for Malicious Domain Detection (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Jian Bai, Alibaba	RAIN: Towards Real-Time Core Devices Anomaly Detection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Jianjun Hao, Beijing University of Posts and Telecommunications	Dual Vote Confirmation based Consensus Design for Blockchain integrated IoT (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Jing Ling, Beijing University of Posts and Telecommunications	The Service Metrics and Performance Analysis of Internet Time Service (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)

Jing Shen, State Grid Henan Electric Power Company Information & Telecommunication Company	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Joan Serrat, Universitat Politècnica de Catalunya	Resource Allocation and Management Techniques for Network Slicing in WiFi Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30); Computing at the Edge: But, what Edge? (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Johan Garcia, Karlstad University	A Novel Flow-level Session Descriptor With Application to OS and Browser Identification (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Johan Tordsson, Elasticsys and Umea University	MicroRCA: Root Cause Localization of Performance Issues in Microservices (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00)
Johannes Naab, Technical University of Munich	5G QoS: Impact of Security Functions on Latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Jonathan Chao, New York University	Distributed Denial of Service Attacks Detection with Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Jose M. Villalon, Universidad de Castilla-La Mancha	Improvements to Multimedia Content Delivery over IEEE 802.11 Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Jose Manuel Sanchez Vilchez, Orange Labs	Going Beyond DiffServ in IP Traffic Classification (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Jose Ordonez-Lucena, Telefonica I+D	Exploiting Case Based Reasoning to Automate Management of Network Slices (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Jose Santos, Ghent University - imec, IDLab	Towards delay-aware container-based Service Function Chaining in Fog Computing (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Joseph Khoury, American University of Beirut	A Hybrid Game Theory and Reinforcement Learning Approach for Cyber-Physical Systems Security (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
José Jair Santanna, University of Twente	MikroTik Devices Landscape, Realistic Honeypots, and Automated Attack Classification (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
João Ceron, University of São Paulo	MikroTik Devices Landscape, Realistic Honeypots, and Automated Attack Classification (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Juan Lucas Vieira, Universidade Federal Fluminense	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Juan Luis Gorricho, Universitat Politècnica de Catalunya	Resource Allocation and Management Techniques for Network Slicing in WiFi Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)

Juan Luis Herrera Gonzalez, Department of Computer Systems and Telematics Engineering, University of Extremadura	A Machine Learning-Based Framework to Estimate the Lifetime of Network Line Cards (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Juergen Schoenwaelder, Jacobs University Bremen	A Resource Efficient Implementation of the RESTCONF Protocol for OpenWrt Systems (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Jukka Riekk, University of Oulu	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Junaid Khan, NYU	LoCHiP: A Distributed Collaborative Cache Management Scheme at the Network Edge (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Junichi Kawasaki, KDDI Research, Inc.	Comparative Analysis of Network Fault Classification Using Machine Learning (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Junjie Zhang, Fortinet, Inc.	Distributed Denial of Service Attacks Detection with Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Jérôme François, INRIA Nancy Grand Est	A Process Mining Tool for Supporting IoT Security (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
József Varga, NOKIA	Capacity Expansion and Modernization of Core Network Elements Running on ATCA Platform (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Jörgen Gustafsson, Ericsson Research	Using Blackbox ML Techniques to Diagnose QoE Problems for an IPTV Service (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Ka Pui Mok, CAIDA/UCSD	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Kadosa Koltai, IncQuery Labs	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Kallol Krishna Karmakar, University of Newcastle	Towards a Dynamic Policy Enhanced Integrated Security Architecture for SDN Infrastructure (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Karine Birnfeld, UFRGS	P4 Switch Code Data Flow Analysis: Towards Stronger Verification of Forwarding Plane Software (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Katja Ludwig, University of Augsburg	End-to-End Mobile Network Slice Embedding Leveraging Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Kazuki Hara, University of tsukuba	Intrusion Detection System using Semi-Supervised Learning with Adversarial Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)

Keishiro Watanabe, NTT	Dividing Deep Learning Model for Continuous Anomaly Detection of Inconsistent ICT Systems (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00); Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Ken Nishimatsu, NTT	DeepSIP: A System for Predicting Service Impact of Network Failure by Temporal Multimodal CNN (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Kengo Tajiri, NTT Corporation	Dividing Deep Learning Model for Continuous Anomaly Detection of Inconsistent ICT Systems (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Kenichi Nagaoka, National College of Tech., Ishikawa College	An Empirical Study of the Effectiveness of Fallback on the ECN (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Kensuke Fukuda, National Insutitute of Informatics	Towards detecting DNSSEC validation failure with passive measurements (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Khaza Anuarul Hoque, University of Missouri-Columbia	Impact of False Data Injection Attacks on Deep Learning Enabled Predictive Analytics (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Khizar Abbas, Jeju National University, South Korea	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Kilian Holzinger, Technische Universität München	Online Monitoring of TCP Throughput Limitations (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Kitae Kim, KyungHee University	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Kohei Shiimoto, Tokyo City University	Few-shot Learning for eNodeB Performance Metric Analysis for Service Level Assurance in LTE Networks (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Intrusion Detection System using Semi-Supervised Learning with Adversarial Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Koichiro Amemiya, Fujitsu Laboratories Ltd.	Layer-Integrated Edge Distributed Data Store for Real-time and Stateful Services (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00)
Kostas Choumas, University of Thessaly	OpenFlow enabled Integrated Routing and Bridging over Ethernet Virtual Private Networks (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Kota Tsuchie, OKI Electric Industry	Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Kozo Satoda, NEC Corporation	Edge Concierge: Democratizing Cost-Effective and Flexible Network Operations using Network Layer AI at Private Network Edges (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Kun Yang, New York University	Distributed Denial of Service Attacks Detection with Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Kyle Ferriter, North Carolina State University	A Cloud-Agnostic Framework to Enable Cost-Aware Scheduling of Applications in a Multi-Cloud Environment (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Kyle Millar, University of Adelaide	Characterising Network-Connected Devices Using Affiliation Graphs (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Kyoko Yamagoe, NTT Corporation	SLA Driven Automatic Fault-Recovery Scheduling Method with Cost Evaluation (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Kyriakos Sgouromitis, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
LanLan Rui, Beijing University of Posts and Telecommunications	A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Lars Christoph Schmelz, Nokia Bell Labs	End-to-End Mobile Network Slice Embedding Leveraging Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Laurent George, ESIEE Paris - LIGM Lab, UPE, France	Blockchain Based Decentralized Framework for Energy Demand Response Marketplace (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Leandros Tassioulas, Yale University	Matching Theory Application for Efficient Allocation of Indivisible Testbed Resources (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); On the Implementation of Matching Theory Based Resource Allocation in Networking Testbeds (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Levente Buttyán, Budapest University of Technology and Economics	Clustering IoT Malware based on Binary Similarity (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Li Wu, Elastisys and Technische Universität Berlin	MicroRCA: Root Cause Localization of Performance Issues in Microservices (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00)
Liang-Min Wang, Intel Corp	OVS-DPDK Port Mirroring via NIC Offloading (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Lifang Gao, State Grid Hebei Information & Telecommunication Branch	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Linzhi Zou, Prefectural University of Hiroshima	An Empirical Study of the Effectiveness of Fallback on the ECN (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Lior Shafir, Tel Aviv University	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: NFV-based IoT Security at the ISP Level (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Lorenzo Ariemma, Roma Tre University	Megalos: A Scalable Architecture for the Virtualization of Network Scenarios (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Kathará: A Lightweight Network Emulation System (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Louis Rilling, DGA	Automated Keyword Extraction from One-day Vulnerabilities at Disclosure (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Luana Uchôa, Universidade Federal Fluminense	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Lucas Castanheira, Universidade Federal do Rio Grande do Sul	PRIME: Programming In-Network Modular Extensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Lucian Trestioreanu, University of Luxembourg	The rise of eBPF for non-intrusive performance monitoring (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Luciano Paschoal Gaspary, UFRGS	From 2D to Next Generation VR/AR Videos: Enabling Efficient Streaming via QoE-aware Mobile Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Luis Miguel Contreras Murillo, Telefonica I+D	Computing at the Edge: But, what Edge? (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Luis Rosa, University of Coimbra	SDN-assisted containerized security and monitoring components (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Luiz Fernando Bittencourt, UNICAMP	Reliable Network Slices based on Elastic Network Resource Demand (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Lukas Römer, Bosch.IO	Leveraging Eclipse IoT in the Arrowhead Framework (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Lukáš Sadlek, Masaryk University	Network Monitoring and Enumerating Vulnerabilities in Large Heterogeneous Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00); Decision Support for Mission-Centric Network Security Management (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Mahesh Marina, The University of Edinburgh	Towards Efficient and Adaptable Monitoring of Softwarized Mobile Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Mahsa Salehi, Monash University	Inherent Vulnerability of Demand Response Optimisation against False Data Injection Attacks in Smart Grids (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Makoto Morishita, NTT	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Malte Granderath, Jacobs University Bremen	A Resource Efficient Implementation of the RESTCONF Protocol for OpenWrt Systems (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Manisha Luthra, TU Darmstadt	Flexible Content-based Publish/Subscribe over Programmable Data Planes (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Manzoor Ahmed Khan, UAE University	AI Enabled Resource Allocation in Future Mobile Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Marcin Nawrocki, Freie Universität Berlin	Uncovering Vulnerable Industrial Control Systems from the Internet Core (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Marco Davids, SIDN Labs	Protecting Home Networks From Insecure IoT Devices (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Marco Polverini, Sapienza, University of Rome	A Machine Learning-Based Framework to Estimate the Lifetime of Network Line Cards (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)

Marco Savi, Fondazione Bruno Kessler	Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4 (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Marco Tambasco, Consortium of Research on Telecommunications	Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Performance Management of Softwarized IP Multimedia Subsystem (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Mariano Scazzariello, Roma Tre University	Megalos: A Scalable Architecture for the Virtualization of Network Scenarios (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Kathará: A Lightweight Network Emulation System (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Marine Segnere, LAAS-CNRS	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Marinos Charalambides, University College London	LogiSig: Automatic Interaction Detection in Software-based Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Mario Di Mauro, University of Salerno	Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Performance Management of Softwarized IP Multimedia Subsystem (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Mark Schmidt, University of Tuebingen	xRAC: Execution and Access Control for Restricted Application Containers on Managed Hosts (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Markosz Maliosz, Budapest University of Technology and Economics	Adaptive scaling of Kubernetes pods (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Martin Reisslein, Arizona State University	Reinforcing Cloud Environments via Index Policy for Bursty Workloads (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Martin Husak, Masaryk University	Network Monitoring and Enumerating Vulnerabilities in Large Heterogeneous Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00); Predictions of Network Attacks in Collaborative Environment (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Decision Support for Mission-Centric Network Security Management (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Martin Lastovicka, Masaryk University	Using TLS Fingerprints for OS Identification in Encrypted Traffic (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Network Monitoring and Enumerating Vulnerabilities in Large Heterogeneous Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Martin Randall, UdeLAR	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)

Marton Kajo, Technical University of Munich	Environment Modeling and Abstraction of Network States for Cognitive Functions (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15); Deep Clustering of Mobile Network Data with Sparse Autoencoders (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00); Mobility and QoS Prediction for Dynamic Coverage Optimization (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Masaaki Nishino, NTT	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Masaru Ueno, FUJITSU LABORATORIES LTD.	SSH Kernel: A Jupyter Extension Specifically for Remote Infrastructure Administration (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Mathias Fischer, University Hamburg	Scan Correlation - Revealing distributed scan campaigns (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Mathieu Bouet, Université Pierre et Marie Curie (UPMC)	BotFP: FingerPrints Clustering for Bot Detection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Matias Richart, Universidad de la República	Resource Allocation and Management Techniques for Network Slicing in WiFi Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Matteo Pergolesi, CNIT	Simplification of the design, deployment, and testing of 5G vertical services (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Matteo Romiti, AIT Austrian Institute of Technology	All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Matthew Broadbent, Lancaster University	Citrus: Orchestrating Security Mechanisms via Adversarial Deception (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Matthias Hemmje, University of Hagen	THE KPP ECOSYSTEM AND ITS SMART PRODUCTION PLANNING SERVICES (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Matthias Wählisch, Freie Universität Berlin	Uncovering Vulnerable Industrial Control Systems from the Internet Core (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Mattijs Jonker, University of Twente	DDoS Mitigation: A Measurement-Based Approach (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00)
Maurizio Longo, University of Salerno	Automated Generation of Availability Models for SFCs: The case of Virtualized IP Multimedia Subsystem (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Performance Management of Softwarized IP Multimedia Subsystem (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Maurizio Patrignani, Roma Tre University	Megalos: A Scalable Architecture for the Virtualization of Network Scenarios (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Mauro Conti, University of Padova	A Proactive Cache Privacy Attack on NDN (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)

Mauro Femminella, University of Perugia	Simplification of the design, deployment, and testing of 5G vertical services (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Mauro Tortonesi, University of Ferrara	Value of Information based Optimal Service Fabric Management for Fog Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Maxime Mouchet, IMT Atlantique	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Mea Wang, University of Calgary	CONTRAST: Container-based Transcoding for Interactive Video Streaming (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Mei-Yuan Huang, Technical University of Munich	Optimizing the Flexibility of SDN Control Plane (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Mengjie Guo, Beijing University of Posts and Telecommunications	The Service Metrics and Performance Analysis of Internet Time Service (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Menglei Zhang, BEIJING UNIVERSITY OF POST AND TELECOM	A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Michael Hitchens, Macquarie University	Towards a Dynamic Policy Enhanced Integrated Security Architecture for SDN Infrastructure (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Michael Menth, University of Tuebingen	xRAC: Execution and Access Control for Restricted Application Containers on Managed Hosts (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00); Demo: Execution and Access Control for Restricted Application Containers on Managed Hosts (xRAC) (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Michael Seufert, University of Würzburg	Optimizing HAS for 360-Degree Videos (AnNet, Monday, April 20, 2020, 14:45 - 15:45)
Michal Javorník, Masaryk University	Decision Support for Mission-Centric Network Security Management (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Miguel Angel Iñigo, MONDRAGON Corporation	Towards an Asset Administration Shell scenario: a use case for interoperability and standardization in Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Miguel Borges de Freitas, University of Coimbra	SDN-assisted containerized security and monitoring components (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Mikael Gasparyan, University of Bern	Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Moayad Aloqaily, Gnowit Inc.	UAV-Assisted Vehicular Communication for Densely Crowded Environments (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Moayad Aloqaily, Gnowit Inc., Ottawa	Reinforcing Cloud Environments via Index Policy for Bursty Workloads (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Mohamed Mosbah, LaBRI-University of Bordeaux ¹	A OneM2M Intrusion Detection and Prevention System based on Edge Machine Learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)

Mohamed Nassar, AUB	A Hybrid Game Theory and Reinforcement Learning Approach for Cyber-Physical Systems Security (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Mohamed Saad, University of Sharjah	A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Mohammad Amin Beiruti, University of Toronto	Load Migration in Distributed SDN Controllers (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Mohammad Salahuddin, University of Waterloo	ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Mohammad Zulkernine, Queen's University	A Game-Theoretic Approach for Distributed Attack Mitigation in Intelligent Transportation Systems (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Molka Gharbaoui, CNIT	Programmable and Automated Deployment of Tenant-Managed SDN Network Slices (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Mounir Kellil, CEA, LIST, Communicating Systems Laboratory	Using Machine Learning to Estimate the Optimal Transmission Range for RPL Networks (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Moussa Aboubakar, Université de Technologie de Compiègne	Using Machine Learning to Estimate the Optimal Transmission Range for RPL Networks (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Mu He, Technical University of Munich	Optimizing the Flexibility of SDN Control Plane (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Muhammad Afaq, Jeju National University	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Márton Bak, Budapest University of Technology and Economics	Clustering IoT Malware based on Binary Similarity (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Nader Mokari, Electrical and Computer Engineering Tarbiat Modares University	Joint Resource and Admission Management for Slice-enabled Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Nadia Chaabouni, University of Bordeaux	A OneM2M Intrusion Detection and Prevention System based on Edge Machine Learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Nasim Ferdosian, EURECOM, France	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Navid Nikaein, Eurecom	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Demo: Efficient Multi-Service RAN Slice Management and Orchestration (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00); 5G Cloud-Native: Network Management & Automation (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)

Nguyen Tran, The University of Sydney	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Nicholas Hart, Lancaster University	?BGP: rethinking BGP programmability (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Nicholas Race, Lancaster University	Citrus: Orchestrating Security Mechanisms via Adversarial Deception (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00); ?BGP: rethinking BGP programmability (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Nikolaos Thomos, University of Essex	Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Nikolay Tcholtchev, FOKUS Fraunhofer Institute for Open Communication Systems	Industrial Grade Methodology for Firewall Simulation and Requirements Verification (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Ningcheng Yuan, Beijing University of Posts and Telecommunications	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Niranjan Suri, Florida Institute for Human & Machine Cognition	Value of Information based Optimal Service Fabric Management for Fog Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Nishanth Sastry, King's College London	Is it time for a 999-like (or 112/911) system for critical information services? (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Nobuyuki Nakamura, Oki Electric Industry	A Device Identification Method Based on Combination of Multiple Information (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Noriaki Kamiyama, Fukuoka University	Data Quality Maximization for Mobile Crowdsensing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Nour Assy, Lebanese International University	Learning a Configurable Deployment Descriptors Model in NFV (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Noura Limam, University of Waterloo	ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Nur Hilal, Bogazici University	Model-based Design of a Roadside Unit for Emergency and Disaster Management (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Oanh Tran Thi Kim, Kyung Hee University	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Odej Kao, Technische Universität Berlin	MicroRCA: Root Cause Localization of Performance Issues in Microservices (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 12:00)
Olivier Brun, LAAS-CNRS	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)

Olufogorehan Tunde-Onadele, North Carolina State University	Reinforcing Cloud Environments via Index Policy for Bursty Workloads (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Omar Abdul Wahab, Université du Québec en Outaouais	A Game-Theoretic Approach for Distributed Attack Mitigation in Intelligent Transportation Systems (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Omar AlFandi, Zayed University	Blockchain Solution for IoT-based Critical Infrastructures: Byzantine Fault Tolerance (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30); UAV-Assisted Vehicular Communication for Densely Crowded Environments (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Omar Hiari, German Jordanian University	A Dynamic Decentralized Traffic Light Management System: A TCP Inspired Approach (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Omar Richardson, Karlstad University	A Novel Flow-level Session Descriptor With Application to OS and Browser Identification (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Osama Arouk, Eurecom	5G Cloud-Native: Network Management & Automation (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Ouns Bouachir, College of Technological Innovation, Zayed University	UAV-Assisted Vehicular Communication for Densely Crowded Environments (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Oznur Ozkasap, Koc University	Preventing DDoS attacks in Path Identifiers-Based Information Centric Networks (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Pablo Belzarena, Universidad de la República	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Pal Varga, Budapest University of Technology and Economics	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30); Practical 5G KPI Measurement Results on a Non-Standalone Architecture (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00); User Group Behavioural Pattern in a Cellular Mobile Network for 5G Use-cases (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Panagiotis Karamichailidis, University of Thessaly	OpenFlow enabled Integrated Routing and Bridging over Ethernet Virtual Private Networks (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Panagiotis Papadimitriou, University of Macedonia	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30); Network Service Embedding with Multiple Resource Dimensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Paolo Azzoni, Eurotech	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0 (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Parisa Foroughi, Telecom Paris, Cisco Systems	Unsupervised Feature Selection for Telemetry Event Description (AnNet, Monday, April 20, 2020, 11:00 - 12:20)

Patrick Fu, Intel Corp	OVS-DPDK Port Mirroring via NIC Offloading (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Patrick Rathje, Kiel University	STARC: Low-power Decentralized Coordination Primitive for Vehicular Ad-hoc Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Paul Emmerich, Technical University of Munich	Online Monitoring of TCP Throughput Limitations (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Paulo Ditarso Maciel Jr., IFPB	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Paulo Salvador, University of Aveiro, Institute of Telecommunications	Physical Layer Anomaly Detection Mechanisms in IoT Networks (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Paulo Simoes, University of Coimbra	SDN-assisted containerized security and monitoring components (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Pavel Celeda, Masaryk University	Using TLS Fingerprints for OS Identification in Encrypted Traffic (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Cyber Situation Awareness via IP Flow Monitoring (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); Predictions of Network Attacks in Collaborative Environment (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00)
Pedro Casas, AIT Austrian Institute of Technology	Two Decades of AI4NETS, Challenges & Research Directions (AnNet, Monday, April 20, 2020, 14:45 - 15:45); All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Pedro Martinez-Julia, National Institute of Information and Communications Technology (NICT)	Computing at the Edge: But, what Edge? (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00); Exploiting Case Based Reasoning to Automate Management of Network Slices (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Pedro Martins, University of Aveiro	Physical Layer Anomaly Detection Mechanisms in IoT Networks (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Pedro Quitério, University of Coimbra	SDN-assisted containerized security and monitoring components (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Peng Cheng, Zhejiang University	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Peng Yu, Beijing University of Posts and Telecommunications	Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Per Kreuger, RISE SICS	Efficient Real-Time Traffic Generation for 5G RAN (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Petr Velan, Masaryk University	Using TLS Fingerprints for OS Identification in Encrypted Traffic (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); On the Impact of Flow Monitoring Configuration (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)

Piero Castoldi, Scuola Superiore Sant'Anna	Programmable and Automated Deployment of Tenant-Managed SDN Network Slices (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Pierre Roux, CEA, LIST, Communicating Systems Laboratory	Using Machine Learning to Estimate the Optimal Transmission Range for RPL Networks (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Prasad Calyam, University of Missouri-Columbia	Impact of False Data Injection Attacks on Deep Learning Enabled Predictive Analytics (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Péter Orosz, Budapest University of Technology and Economics	VoicePerf: A Quality Estimation Approach for No-reference IP Voice Traffic (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Qi Feng, Beijing University of Posts and Telecommunications	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Qing Li, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Qinghai Ou, State Grid Information & Telecommunication Group	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Radu State, University of Luxembourg	The rise of eBPF for non-intrusive performance monitoring (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Process mining-based approach for investigating malicious login events (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Rafael Lopes Gomes, Universidade Estadual do Ceará (UECE)	Reliable Network Slices based on Elastic Network Resource Demand (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Rafael Pasquini, Federal University of Uberlândia (UFU)	Design and Implementation of an Elastic Monitoring Architecture for Cloud Network Slices (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Inferring Cloud-Network Slice's Requirements from Non-Structured Service Description (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Raimo Kantola, Aalto University	Implementing a Security Policy Management for 5G Customer Edge Nodes (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Rainer Stütz, AIT Austrian Institute of Technology	All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Ralf Kundel, Technische Universität Darmstadt	P4STA: High Performance Packet Timestamping with Programmable Packet Processors (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); Flexible Content-based Publish/Subscribe over Programmable Data Planes (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00); Microbursts in Software and Hardware-based Traffic Load Generation (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)

Ramon Barakat, Fraunhofer FOKUS	Industrial Grade Methodology for Firewall Simulation and Requirements Verification (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Ran Goldschmidt, IDC	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Raouf Boutaba, University of Waterloo	ATMoS: Autonomous Threat Mitigation in SDN Using Reinforcement Learning (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Raquel Rugani Lage, Orange Labs - Telecom SudParis	Allocating and Scheduling Measurement Applications (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Ray-Guang Cheng, National Taiwan University of Science and Technology	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Remi Badonnel, INRIA - TELECOM Nancy - University of Lorraine	A Process Mining Approach for Supporting IoT Predictive Security (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00); A Process Mining Tool for Supporting IoT Security (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Reuven Peretz, The Hebrew University	Moving Target Defense for Virtual Network Functions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Ricardo Parizotto, UFRGS	PRIME: Programming In-Network Modular Extensions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Riccardo Sisto, Politecnico di Torino	Automated optimal firewall orchestration and configuration in virtualized networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Richard Verbeet, University of Applied Sciences Ulm	Service and Agent based System Architectures for Industrie 4.0 Systems (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Richard von Seck, Technische Universität München	Hardening X.509 Certificate Issuance using Distributed Ledger Technology (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Riri Fitri Sari, University of Indonesia	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Ritu Chadha, Perspecta Labs	Attack-Resistant Routing : a Framework for Enhancing Routing Robustness in Wireless Ad-hoc Networks (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Robert Harper, Moogsoft Ltd.	Towards Improved Fault Localization using Transfer Learning and Language Modeling (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Robert Schmidt, EURECOM	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00); Demo: Efficient Multi-Service RAN Slice Management and Orchestration (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Roberto Irajá Tavares da Costa Filho, Universidade Federal do Rio Grande do Sul	From 2D to Next Generation VR/AR Videos: Enabling Efficient Streaming via QoE-aware Mobile Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)

Roberto Riggio, Fondazione Bruno Kessler	aiOS: An Intelligence Layer for SD-WLANs (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: Deploying Transparent Applications at the Network Edges with LightEdge (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Roland van Rijswijk-Deij, University of Twente	Global-Scale Anycast Network Management with Verfploeter (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Rong He, Chinese Academy of Scientific Computer Network Information Center	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Ruben Mennes, University of Antwerp - imec	A Dynamic Spectrum Footprint Adaptation Framework for Collaborative Spectrum Sharing (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Rui Kang, Kyoto University	Demonstration of Network Service Header Based Service Function Chain Application with Function Allocation Model (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Ruqayah Al-ani, Liverpool John Moores University	Adjusted Location Privacy Scheme in VANET Safety Applications (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Ryan Mills, Lancaster University	Citrus: Orchestrating Security Mechanisms via Adversarial Deception (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Safa Otoum, University of Ottawa	Blockchain Solution for IoT-based Critical Infrastructures: Byzantine Fault Tolerance (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Sajad Sameti, University of Calgary	CONTRAST: Container-based Transcoding for Interactive Video Streaming (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Salman Aljammaz, Cloudflare	Global-Scale Anycast Network Management with Verfploeter (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Salwa Nassar, Electronics Research Institute	A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Sami Ben Mariem, Universite de Liege	All that Glitters is not Bitcoin – Unveiling the Centralized Nature of the BTC (IP) Network (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Sana Ben Jemaa, Orange Labs	Anomaly prediction in mobile networks : A data driven approach for machine learning algorithm selection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Sandrine Vaton, IMT Atlantique	Scalable monitoring heuristics for improving network latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Sayantini Majumdar, Technical University of Munich	Environment Modeling and Abstraction of Network States for Cognitive Functions (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Sebastian Backstad, Ericsson	Few-shot Learning for eNodeB Performance Metric Analysis for Service Level Assurance in LTE Networks (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Sebastian Gallenmüller, Technical University of Munich	5G QoS: Impact of Security Functions on Latency (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Sebastiano Valle, University of Padova	A Proactive Cache Privacy Attack on NDN (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)

Shaohan Huang, Beihang University	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Shaoyong Guo, Beijing University of Posts and Telecommunications	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Shaozhe Wang, Alibaba	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Shelly Wang, Carleton University	On the Detection of Persistent Attacks using Alert Graphs and Event Feature Embeddings (GraSec Graph-based network security, Friday, April 24, 2020, 12:00 - 14:30)
Sheng Jiang, Huawei Technologies Co., Ltd.	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Shibo Lu, Imperial College London	Unveiling the Features of Network Dynamics: a Data-Oriented Approach (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Shingo Ata, Osaka City University	A Device Identification Method Based on Combination of Multiple Information (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Shiva Ketabi, University of Toronto	Hierarchical Congestion Control (HCC): Cooperation of Uncorrelated Flows for Better Fairness and Throughput (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45); Perfect is the Enemy of Good: Lloyd-Max Quantization for Rate Allocation in Congestion Control Plane (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Shiwei Zhang, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Shlomo Shenzis, Hebrew University of Jerusalem Israel	Moving Target Defense for Virtual NetworkFunctions (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Silvio Costa Sampaio, Federal University of Rio Grande do Norte (UFRN)	Enabling Enhanced Elasticity Control Functions to Cloud-Network Slice-Defined Domains (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Silvio Quincozes, UFF	Analysis of Smart Grid Fault Recovery Protocols (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Simon Bauer, Technical University of Munich	Online Monitoring of TCP Throughput Limitations (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Sina Ebrahimi, Tarbiat Modares University	Joint Resource and Admission Management for Slice-enabled Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Sina Rafati Niya, University of Zurich	BIIT: Standardization of Blockchain-based IIoT Systems in the I4 Era (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Siya Xu, Beijing University of Posts and Telecommunications	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)

Sofiane Lagraa, University of Luxembourg	Process mining-based approach for investigating malicious login events (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Stanislav Spacek, Masaryk University	Using TLS Fingerprints for OS Identification in Encrypted Traffic (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Stefan Valentin, Mathematical and Algorithmic Sciences Lab, Paris Research Center, Huawei Technologies France SASU	Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Stefano Moretti, Universite Paris-Dauphine	Decentralization of 5G slice resource allocation (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Stefano Secci, Cnam	Going Beyond DiffServ in IP Traffic Classification (AnNet, Monday, April 20, 2020, 13:30 - 14:45); Decentralization of 5G slice resource allocation (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00); BotFP: FingerPrints Clustering for Bot Detection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Steffen Haas, University Hamburg	Scan Correlation - Revealing distributed scan campaigns (DISSECT Full Papers, Friday, April 24, 2020, 09:00 - 11:00)
Stephane Rovedakis, CNAM	Decentralization of 5G slice resource allocation (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Stephen Mwanje, Nokia Bell Labs	Environment Modeling and Abstraction of Network States for Cognitive Functions (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Steven Latré, University of Antwerp - iMinds	Multi-technology Management of Heterogeneous Wireless Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00); A Dynamic Spectrum Footprint Adaptation Framework for Collaborative Spectrum Sharing (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Stuart Clayman, University College London	Unveiling the Features of Network Dynamics: a Data-Oriented Approach (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 17:30 - 18:30)
Sukanya Bhowmik, Uni Stuttgart	Flexible Content-based Publish/Subscribe over Programmable Data Planes (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Susana Sargento, Universidade de Aveiro	Distributed Real-time Forecasting Framework for IoT Network and Service Management (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Physical Layer Anomaly Detection Mechanisms in IoT Networks (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Suzan Bayhan, University of Twente	aiOS: An Intelligence Layer for SD-WLANs (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Sylvain Allio, Orange Labs.	Anomaly prediction in mobile networks : A data driven approach for machine learning algorithm selection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Symeon Papavassiliou, National Technical University of Athens	COSMOS: An Orchestration Framework for Smart Computation Offloading in Edge Clouds (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Szvetlin Tanyi, AITIA International Inc.	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)

Takanori Iwai, NEC	Edge Concierge: Democratizing Cost-Effective and Flexible Network Operations using Network Layer AI at Private Network Edges (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Takehiro Sato, Kyoto University	Demonstration of Network Service Header Based Service Function Chain Application with Function Allocation Model (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Takeshi Mitamura, JPRS	Towards detecting DNSSEC validation failure with passive measurements (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Taketsugu Yao, Oki Electric Industry Co., Ltd.	A Device Identification Method Based on Combination of Multiple Information (AnNet, Monday, April 20, 2020, 10:00 - 11:00); Demo: A Simple and Real-time Device Identification System by Analysis of Traffic Patterns (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Tal Shapira, Tel Aviv University	Unveiling the Type of Relationship Between Autonomous Systems Using Deep Learning (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Talal Halabi, University of Winnipeg	A Game-Theoretic Approach for Distributed Attack Mitigation in Intelligent Transportation Systems (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Talha ahmed Khan, Jeju National University	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Tamas Tothfalusi, Budapest University of Technology and Economics	VoicePerf: A Quality Estimation Approach for No-reference IP Voice Traffic (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Tao Huang, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Tatsuaki Kimura, NTT	DeepSIP: A System for Predicting Service Impact of Network Failure by Temporal Multimodal CNN (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Thanasis Korakis, University of Thessaly	Matching Theory Application for Efficient Allocation of Indivisible Testbed Resources (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); OpenFlow enabled Integrated Routing and Bridging over Ethernet Virtual Private Networks (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00); On the Implementation of Matching Theory Based Resource Allocation in Networking Testbeds (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Thomas Clausen, Ecole Polytechnique	Unsupervised Feature Selection for Telemetry Event Description (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Thomas Feltin, École polytechnique, Cisco Systems	Unsupervised Feature Selection for Telemetry Event Description (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Thomas Lin, University of Toronto	Towards a Client-Centric QoS Auto-Scaling System (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Thomas Schmidt, HAW Hamburg	Uncovering Vulnerable Industrial Control Systems from the Internet Core (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 12:00 - 13:00)
Thusitha Dayaratne, Monash University	Inherent Vulnerability of Demand Response Optimisation against False Data Injection Attacks in Smart Grids (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)

Tiago Cruz, University of Coimbra	SDN-assisted containerized security and monitoring components (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Tian Pan, BUPT	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Tim Wauters, Ghent University - imec	Towards delay-aware container-based Service Function Chaining in Fog Computing (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Timothy Miskell, Intel	OVS-DPDK Port Mirroring via NIC Offloading (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Tobias Hossfeld, University of Duisburg-Essen	Optimizing HAS for 360-Degree Videos (AnNet, Monday, April 20, 2020, 14:45 - 15:45)
Tobias Hoßfeld, University of Würzburg	Is the Uplink Enough? Estimating Video Stalls from Encrypted Network Traffic (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Tobias Vogel, FernUniversität Hagen	THE KPP ECOSYSTEM AND ITS SMART PRODUCTION PLANNING SERVICES (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 16:00 - 17:00)
Toerless Eckert, Futurewei	High-Precision Latency Forwarding over Packet-Programmable Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00); A Network Emulator for High-Precision Latency Forwarding over Packet-Programmable Networks (Demo Paper) (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Tom De Schepper, University of Antwerp - imec - IDLab	Multi-technology Management of Heterogeneous Wireless Networks (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 15:00 - 17:00)
Tomas Jirsik, Masaryk University	Cyber Situation Awareness via IP Flow Monitoring (NOMS2020 Dissertation Session Paper, Thursday, April 23, 2020, 11:00 - 13:00); On the Impact of Flow Monitoring Configuration (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Tommaso Caiazzzi, Roma Tre University	Kathará: A Lightweight Network Emulation System (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Torsten Braun, University of Bern	Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Toshihiko Seki, NTT Corporation	SLA Driven Automatic Fault-Recovery Scheduling Method with Cost Evaluation (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 09:00 - 11:30)
Tra Le, Kyung Hee University	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Tsutomu Hirao, NTT	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)

Uday Tupakula, University of Newcastle	Towards a Dynamic Policy Enhanced Integrated Security Architecture for SDN Infrastructure (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Umer Rehman Mughal, Technische Universität Berlin	AI Enabled Resource Allocation in Future Mobile Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Vania Conan, Thales	BotFP: FingerPrints Clustering for Bot Detection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Varun Deshpande, Université Paris-Est, LIGM, ESIEE Paris	Blockchain Based Decentralized Framework for Energy Demand Response Marketplace (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Vasileios Giotsas, Lancaster University	?BGP: rethinking BGP programmability (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Vasileios Miliotis, University of Thessaly	Matching Theory Application for Efficient Allocation of Indivisible Testbed Resources (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); On the Implementation of Matching Theory Based Resource Allocation in Networking Testbeds (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Ved Kafle, NICT	Exploiting Case Based Reasoning to Automate Management of Network Slices (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Venkatraman Balasubramanian, Arizona State University	Reinforcing Cloud Environments via Index Policy for Bursty Workloads (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Veronica Quintana Rodriguez, Orange Labs	Network Slice Management on top of ONAP (NOMS 2020 Demos, Tuesday, April 21, 2020, 13:00 - 14:00)
Vijay Varadharajan, University of Newcastle	Towards a Dynamic Policy Enhanced Integrated Security Architecture for SDN Infrastructure (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Vincent Hofer, University of Bern	Bloom Filter-based Routing for Dominating Set-based Service-Centric Networks (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Wael Afifi, Electronics Research Institute	A Dynamic Clustering Approach for Increasing User Throughput in 5G Wireless Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Walid Gaaloul, Télécom SudParis	Learning a Configurable Deployment Descriptors Model in NFV (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Wang-Cheol Song, Jeju National University	Intent-Based Orchestration of Network Slices and Resource Assurance using Machine Learning (NOMS 2020 Demos, Thursday, April 23, 2020, 13:00 - 14:00)
Wassim Sellil Atoui, Orange Labs	Learning a Configurable Deployment Descriptors Model in NFV (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Weichao Li, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)

Wen-Kang Jia, Fujian Normal University	Interference Cancellation for Software Defined Impulse Radio by Template Design (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Wenchen He, Beijing University of Posts and Telecommunications, Beijing, China	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Wenjing Li, Beijing University of Posts and Telecommunication	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Wenqin Shao, Cisco Systems & Telecom ParisTech	Unsupervised Feature Selection for Telemetry Event Description (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Wenqing Yan, Uppsala University	Predicting Round-Trip Time Distributions in IoT Systems using Histogram Estimators (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Weverton Cordeiro, UFRGS	P4 Switch Code Data Flow Analysis: Towards Stronger Verification of Forwarding Plane Software (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Winston Seah, Victoria University of Wellington	ElasticWISP ? Energy-Proportional WISP Networks (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Wolfgang Kellerer, Technical University of Munich (TUM)	Optimizing the Flexibility of SDN Control Plane (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Wouter de Vries, University of Twente	Global-Scale Anycast Network Management with Verfploeter (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Xenofon Foukas, The University of Edinburgh	Towards Efficient and Adaptable Monitoring of Softwarized Mobile Networks (NOMS 2020 Experience Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Xenofon Vasilakos, EURECOM	ElasticSDK: A Monitoring Software Development Kit for enabling Data-driven Management and Control in 5G (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 09:00 - 11:00)
Xiang Su, University of Helsinki	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Xiaoqing Sun, Tsinghua University	HGDom: Heterogeneous Graph Convolutional Networks for Malicious Domain Detection (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Xingchen Lin, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Xinyu Yuan, Tianjin University	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Xiong Xiao, Alibaba	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Xue-song Qiu, Beijing University of Posts and Telecommunications	Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Xuesong Qiu, Beijing University of Posts and Telecommunications	Delay-Aware NFV Resource Allocation with Deep Reinforcement Learning (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Xufang Wang, Fujian Normal University	Interference Cancellation for Software Defined Impulse Radio by Template Design (NOMS 2020 Poster Sessions, Thursday, April 23, 2020, 13:00 - 14:00)
Yacine Ghamri-Doudane, University of La Rochelle	LoCHiP: A Distributed Collaborative Cache Management Scheme at the Network Edge (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Yacine Rebahi, Fraunhofer Fokus	Industrial Grade Methodology for Firewall Simulation and Requirements Verification (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 14:15 - 16:15)
Yadunandan Pillai, Virginia Commonwealth University	A Privacy-Aware Collaborative DDoS Defense Network (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Yan Kyaw Tun, Kyung Hee University	Sharing Incentive Mechanism, Task Assignment and Resource Allocation for Task Offloading in Vehicular Mobile Edge Computing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Yang Guo, NIST	AccuPIPE: Accurate Heavy Flow Detection in the Data Plane Using Programmable Switches (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45)
Yang Xu, Fudan University	Distributed Denial of Service Attacks Detection with Autoencoder (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Yaser Jararweh, JUST	Blockchain Solution for IoT-based Critical Infrastructures: Byzantine Fault Tolerance (ITCVT Full Paper, Monday, April 20, 2020, 13:00 - 15:30)
Yashar Ganjali, University of Toronto	Hierarchical Congestion Control (HCC): Cooperation of Uncorrelated Flows for Better Fairness and Throughput (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 17:45 - 18:45); Load Migration in Distributed SDN Controllers (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00); Perfect is the Enemy of Good: Lloyd-Max Quantization for Rate Allocation in Congestion Control Plane (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 13:00)
Yasuhiro Ikeda, PKSHA Technology	Dividing Deep Learning Model for Continuous Anomaly Detection of Inconsistent ICT Systems (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Yehuda Afek, Tel Aviv University	NFV-based IoT Security for Home Networks using MUD (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30); Demo: NFV-based IoT Security at the ISP Level (NOMS 2020 Demos, Wednesday, April 22, 2020, 13:00 - 14:00)
Yi Liu, Beihang University	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)

Yi Wang, Southern University of Science and Technology	Scalable Traffic Engineering for Higher Throughput in Heavily-loaded Software Defined Networks (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00)
Yi Zhang, Beijing University of Posts and Telecommunications	Dual Vote Confirmation based Consensus Design for Blockchain integrated IoT (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Yichen Chen, Imperial College London	A framework for automatic firewalls configuration via argumentation reasoning (DISSECT Poster Papers, Friday, April 24, 2020, 11:00 - 12:00)
Yihong Hu, University of Posts and Telecommunications	The Service Metrics and Performance Analysis of Internet Time Service (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Yijun Guo, Beijing University of Posts and Telecommunications	Dual Vote Confirmation based Consensus Design for Blockchain integrated IoT (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Yimin Li, BUPT	Cost-and-QoS-Based NFV Service Function Chain Mapping Mechanism (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 15:00 - 17:00)
Ying Wang, Beijing University of Posts and Telecommunications	A Service Migration Method Based on Dynamic Awareness in Mobile Edge Computing (NOMS 2020 Mini-Conference Sessions, Monday, April 20, 2020, 12:00 - 14:00); Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Yining Qi, Zhejiang University	RAIN: Towards Real-Time Core Devices AnomalyDetection Through Session Data in Cloud Network (Orchestration for Software-Defined Infrastructures (O4SDI), Friday, April 24, 2020, 11:00 - 12:00)
Yining Zhao, Chinese Academy of Scientific Computer Network Information Center	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Yoichi Matsuo, NTT Corporation	DeepSIP: A System for Predicting Service Impact of Network Failure by Temporal Multimodal CNN (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Yoichi Matsuo, NTT corporation	Recovery command generation towards automatic recovery in ICT systems by Seq2Seq learning (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Yoshiro Yoneya, JPRS	Towards detecting DNSSEC validation failure with passive measurements (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
Yosra Ben Slimen, Orange Labs	Anomaly prediction in mobile networks : A data driven approach for machine learning algorithm selection (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 12:00 - 14:00)
Young-Tak Kim, Yeungnam University	Management of Smart Vehicular Handovers in Overlapped V2X Networks (ITCVT Full Paper, Monday, April 20, 2020, 10:00 - 12:30)
Yu Liu, Worcester Polytechnic Institute	Community Cleanup: Incentivizing Network Hygiene via Distributed Attack Reporting (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:45)
Yuhong Li, Beijing University of Posts and Telecommunications	Predicting Internet of Things Data Traffic Through LSTM and Autoregressive Spectrum Analysis (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)

Yuji Imai, Fujitsu Labs.	SSH Kernel: A Jupyter Extension Specifically for Remote Infrastructure Administration (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Yuki Imamura, Osaka City University	A Device Identification Method Based on Combination of Multiple Information (AnNet, Monday, April 20, 2020, 10:00 - 11:00)
Yuncan Zhang, Kyoto University	Network Service Mapping and Scheduling under Uncertain Processing Time (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 11:00 - 13:00)
Yunjie Liu, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Yusufu Shehu, Moogsoft Ltd.	Towards Improved Fault Localization using Transfer Learning and Language Modeling (AnNet, Monday, April 20, 2020, 11:00 - 12:20)
Yusuke Suzuki, KDDI Research	Comparative Analysis of Network Fault Classification Using Machine Learning (NOMS 2020 Experience Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Yuusuke Nakano, NTT	Dividing Deep Learning Model for Continuous Anomaly Detection of Inconsistent ICT Systems (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)
Yuval Shavitt, Tel Aviv University	Unveiling the Type of Relationship Between Autonomous Systems Using Deep Learning (AnNet, Monday, April 20, 2020, 13:30 - 14:45)
ZHENGYU YANG, NORTHEASTERN UNIVERSITY	Reinforcing Cloud Environments via Index Policy for Bursty Workloads (NOMS 2020 Mini-Conference Sessions, Friday, April 24, 2020, 09:00 - 11:00)
Zhe Chen, Huawei Technologies Co., Ltd.	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Zhe Lou, Huawei Technologies Co., Ltd.	NEW IP Framework and Protocol for Future Applications (NOMS 2020 Poster Sessions, Wednesday, April 22, 2020, 13:00 - 14:00)
Zheng Qiu, Beijing University of Posts and Telecommunications	Dual Vote Confirmation based Consensus Design for Blockchain integrated IoT (NOMS 2020 Technical Sessions, Wednesday, April 22, 2020, 15:45 - 17:15)
Zhiliang Wang, Tsinghua university	HGDom: Heterogeneous Graph Convolutional Networks for Malicious Domain Detection (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Zhongzhi Luan, Beihang University	Paddy: An Event Log Parsing Approach with Dynamic Dictionary (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 11:00 - 13:00)
Zi fan Li, Beijing University of Posts and Telecommunications	Cost-aware Placement and Chaining of Service Function Chain with VNF Instance Sharing (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)
Zizheng Bian, Beijing University of Posts and Telecommunications	Rapid Detection and Localization of Gray Failures in Data Centers via In-band Network Telemetry (NOMS 2020 Technical Sessions, Thursday, April 23, 2020, 11:00 - 12:00)
Zoar Yakhini, IDC	IoT or Not: Identifying IoT Devices in a Short TimeScale (NOMS 2020 Technical Sessions, Tuesday, April 21, 2020, 15:30 - 17:30)

Zoltan Micskei, Budapest University of Technology and Economics	From Models to Management and Back: Towards a System-of-Systems Engineering Toolchain (Industry 4.0 Management for Industry4.0, Monday, April 20, 2020, 13:30 - 15:30)
Zsolt Szalay, Budapest University of Technology and Economics	Practical 5G KPI Measurement Results on a Non-Standalone Architecture (NOMS 2020 Poster Sessions, Tuesday, April 21, 2020, 13:00 - 14:00)