



ITC 29  
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University of Genoa, Italy

## ITC 29 Program

# Program of the 29th International Teletraffic Congress

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(ITC 29 TPC Chairs)

Version of Thursday 22<sup>nd</sup> June, 2017

## Contents

## Tuesday 5<sup>th</sup> September, 2017

- 09:00 – 09:30 Opening by Franco Davoli
- 09:30 – 10:30 **Keynote** by John Daigle (University of Mississippi, USA)  
*A Performance Perspective on Function Virtualization for Small Cells in 5G Cellular Networks*
- 10:30 – 11:00 Coffee break
- 11:00 – 12:40 **Session 1: Resource Allocation**  
*Distributed and Adaptive Routing Based on Game Theory* by Baptiste Jonglez (Université Grenoble Alpes & LIG, France) and Bruno Gaujal (INRIA & LIG, France)  
*Scheduling Jobs with Estimation Errors for Multi-Server Systems* by Rachel Mailach and Douglas Down (McMaster University, Canada)  
*Real-Time Fair Resource Allocation in Distributed Software Defined Networks* by Zaid Allybokus (Inria Sophia Antipolis & Mathematical and Algorithmic Sciences Lab, France Research Center, Huawei Technologies Co. Ltd, France), Konstantin Avrachenkov (INRIA Sophia Antipolis, France), Jeremie Leguay and Lorenzo Maggi (Huawei Technologies, France Research Center, France)  
*A Green Video Control Plane with Fixed-Mobile Convergence and Cloud-RAN* by Ramon Aparicio-Pardo (Université Côte d’Azur & CNRS, I3S, France) and Lucile Sassatelli (Université Nice Sophia Antipolis, France)
- 12:40 – 14:00 Lunch
- 14:00 – 15:15 **Session 2: Wireless**  
*Load-Driven Cell Assignment Algorithms for Dense Pico-Cell Networks* by Bart Post and Sem Borst (Eindhoven University of Technology, The Netherlands)  
*Data-Driven Evaluation of Anticipatory Networking in LTE Networks* by Nicola Bui and Joerg Widmer (IMDEA Networks Institute, Spain)  
*Experimental Comparison of Routing Protocols for Wireless Sensors Networks: Routing Overhead and Asymmetric Links* by Henry-Joseph Audéoud (Grenoble Informatics Laboratory, France) and Martin Heusse (Grenoble Informatics Laboratory & Grenoble INP, France)
- 15:15 – 15:45 Coffee break
- 15:45 – 17:00 **Session 3: Big Data Analytics**  
*Skamplng for the Flow Duration Distribution* by Nelson Antunes (University of Algarve, Portugal), Vladas Pipiras (University of North Carolina, USA), and Darryl Veitch (University of Technology Sydney, Australia)  
*Multi-Low-Rank Approximation for Traffic Matrices* by Saurabh Verma, Arvind Narayanan, and Zhi-Li Zhang (University of Minnesota, USA)  
*Anonymity Services Tor, I2P, JonDonym: Classifying in the Dark* by Antonio Montieri (University of Napoli Federico II & NM2 srl, Italy), Giuseppe Aceto, Domenico Ciuonzo, and Antonio Pescapé (University of Napoli Federico II, Italy)
- 18:00 – 20:00 Welcome reception

## Wednesday 6<sup>th</sup> September, 2017

- 09:00 – 10:00 **Keynote** by Melissa Frank (Google, USA)  
*Journey into an Emerging Product Space: Building Android Wear*
- 10:00 – 10:30 Coffee break
- 10:30 – 12:10 **Session 4: Performance Modelling**  
*State Modulated Traffic Models for Machine Type Communication* by Olav Norvald Østerbø (Telenor Corporate Development, Norway), Daniel Zucchetto (University of Padova, Italy), Kashif Mahmood (Telenor, Norway), Andrea Zanella (University of Padova, Italy), and Ole Grøndalen (Telenor, Norway)  
*Performance Modeling of Vehicular Floating Content* by Gaetano Manzo (University of Bern and HES SO Valais), Marco G Ajmone Marsan (Politecnico di Torino & IMDEA Networks, Italy), and Gianluca A. Rizzo (HES SO Valais, Switzerland)  
*A Model for the Optimization of Beacon Message Age-of-Information in a VANET* by Andrea Baiocchi and Ion Turcanu (University of Roma Sapienza, Italy)  
*Incentive-Rewarding Mechanisms to Stimulate Participation in Heterogeneous DTNs* by Rachid El-Azouzi (University of Avignon, France), Ahmed El Ouadrhiri (LIMS, Sidi Mohammed Ben Abdellah University, Fez, Morocco), Balakrishna Prabhu (LAAS-CNRS, France), Daniel Menasché (Federal University of Rio de Janeiro, Brazil), and Olivier Brun (Laboratoire d'Analyse et d'Architecture des Systemes & CNRS, France)
- 12:10 – 12:25 Madness session
- 12:25 – 13:45 Lunch
- 13:45 – 15:15 **Session 5: Demos and Tools**  
*SoC-based Implementation of a Lightweight Label Switching Router* by Timothy VanEtten, Amy Williams, Jiahuan Deng and Feng Wang (Liberty University, USA), and Lixin Gao (University of Massachusetts at Amherst, USA)  
*Monitoring Container Services at the Network Edge* by Marcel Großmann and Clemens Klug (University of Bamberg, Germany)  
*fling: A Flexible Ping for Middlebox Measurements* by Runa Barik and Michael Welzl (University of Oslo, Norway), Ahmed Mustafa Elmokashfi (Simula Research Laboratory, Norway), Stein Gjessing (University of Oslo & Simula Research Lab., Norway), and Safiqul Islam (University of Oslo, Norway)
- 15:15 – 16:15 Coffee break + Poster session
- 16:15 – 17:30 **Session 6: Virtualization and Measurements**  
*Automated Decision Making based on Pareto Frontiers in the Context of Service Placement in Networks* by Michael Seufert, Stanislav Lange, and Markus Meixner (University of Würzburg, Germany)  
*A Multi-Objective Heuristic for the Optimization of Virtual Network Function Chain Placement* by Stanislav Lange, Alexej Grigorjew, Thomas Zimmer, Phuoc Tran-Gia (University of Wuerzburg, Germany), and Michael Jarschel (Nokia Bell Labs, Germany)

**Wednesday 6<sup>th</sup> September, 2017 (cont.)**

*A First Look at the Prevalence and Persistence of Middleboxes in the Wild* by  
Korian Edeline and Benoit Donnet (University of Liège, Belgium)

19:00 – 22:00 Social event

## Thursday 7<sup>th</sup> September, 2017

- 09:30 – 10:30 **Keynote** by Giuseppe Bianchi (University of Roma Tor Vergata, Italy)  
*Data Plane Programmability: the Next Step in Software Defined Networking*
- 10:30 – 11:00 Coffee break
- 11:00 – 12:40 **Session 7: Monitoring**  
*Speedtest-like Measurements in 3G/4G Networks: the MONROE Experience* by Ali Safari Khatouni and Marco Mellia (Politecnico di Torino, Italy), Marco G Ajmone Marsan (Politecnico di Torino & IMDEA Networks, Italy); Stefan Alfredsson, Jonas Karlsson and Anna Brunstrom (Karlstad University, Sweden), Ozgu Alay, Andra Lutu and Cise Midoglu (Simula Research Laboratory, Norway), and Vincenzo Mancuso (IMDEA Networks Institute, Spain)  
*LISP-Views: Monitoring LISP at Large Scale* by Yue Li, Akram Abouseif and Luigi Iannone (Telecom ParisTech, France), and Damien Saucez (INRIA, France)  
*Towards a NetFlow Implementation for OpenFlow Software-Defined Networks* by José Suárez-Varela (UPC BarcelonaTech, Spain) and Pere Barlet-Ros (UPC BarcelonaTech / Talaia Networks, Spain)  
*One-to-One matching of RTT and Path Changes* by Wenqin Shao (Telecom ParisTech, France), Jean-Louis Rougier (TELECOM ParisTech / LTCI, France), Antoine Paris (Telecom ParisTech, France), François Devienne and Mateusz Viste (BORDER 6, France)
- 12:40 – 14:00 Lunch
- 14:00 – 15:15 **Session 8: Caching**  
*Quality-Aware DASH Video Caching Schemes At Mobile Edge* by Zakaria Ye (University of Avignon, France), Francesco De Pellegrini (Fondazione Bruno Kessler (FBK), Italy), Rachid El-Azouzi and Tania Jimenez (University of Avignon, France), and Lorenzo Maggi (Huawei Technologies, France Research Center, France)  
*Providing Information Resilience through Modularity-based Caching in Perturbed Information-Centric Networks* by Wei Koong Chai (Bournemouth University, United Kingdom), Vasilis Sourlas and George Pavlou (University College London, United Kingdom)  
*Offload Content at Self-organizing Mobile Fogs* by Junaid A Khan (INRIA & INSA Lyon, France), Cedric Westphal (Huawei Innovation Center, USA), and Yacine Ghamri-Doudane (University of la Rochelle, France)
- 15:15 – 15:45 Coffee break
- 15:45 – 17:00 **Session 9: Queueing**  
*Value (Generating) Functions for the  $M^X/G/1$  Queue* by Esa Hyytiä (University of Iceland & Aalto University, Iceland), Rhonda Righter (University of California Berkeley, USA), Jorma Virtamo and Lauri Viitasaari (Aalto University, Finland)  
*Latency Reduction in Communication Networks using Redundant Messages* by Joseph Hollinghurst, Ayalvadi Ganesh (University of Bristol, United Kingdom), and Timothy Baugé (Thales Group, United Kingdom)

**Thursday 7<sup>th</sup> September, 2017 (cont.)**

*Mean Field Analysis of Loss Models with Mixed-Erlang Distributions under Power-of-d Routing* by Thirupathaiah Vasantam (University of Waterloo, Canada), Arpan Mukhopadhyay (EPFL, Switzerland), and Ravi R Mazumdar (University of Waterloo, Canada)

17:00 – 17:15 Closing