

International Conference on Design of Reliable Communication Networks 2017



Invited Talk Session 1

[Designing a Resilient Virtual Topology in a Multi-Layer Datacenter Interconnection Network](#)

Yuri Smirnov (Facebook Inc, USA)

Session 1 - Transport

[Comparison of Various Reliable Transport Architectures for Long-Haul Networks](#)

Onur Turkcu, Abishek Gopalan, Biao Lu and Parthiban Kandappan (Infinera, USA)

[A Multiple-Link Failures Enumeration Approach for Availability Analysis on Partially Disjoint Paths](#)

Nehuen Gonzalez-Montoro (National University of Córdoba & IDIT - CONICET, Argentina); Renato Cherini (National University of Córdoba, Argentina); Jorge M Finochietto (National University of Córdoba & CONICET, Argentina)

[Connection Management in a Resilient Transport Protocol](#)

Truc Anh N. Nguyen (The University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)

Session 2 - Modeling

[Finding Minimum Node Separators: A Markov Chain Monte Carlo Method](#)

Joohyun Lee (The Ohio State University, USA); Jaewook Kwak (North Carolina State University, USA); Hyang-Won Lee (Konkuk University, Korea); Ness B. Shroff (The Ohio State University, USA)

[Modelling Spectrum Assignment in a Two-Service Flexi-Grid Optical Link with Imprecise Continuous-Time Markov Chains](#)

Cristina E.M. Rottondi (Dalle Molle Institute for Artificial Intelligence (IDSIA), Switzerland); Alexander Erreygers (Ghent University, Belgium); Giacomo Verticale (Politecnico di Milano, Italy); Jasper De Bock (Ghent University, Belgium)

[Routing Optimization for SDN Networks Based on Pivoting Rules for the Simplex Algorithm](#)

Fabien Geyer (Airbus Group Innovations, Germany)

Session 3 - Security

[Towards Cloud Security Improvement with Encryption Intensity Selection](#)

Mortada Aman and Egemen K. Çetinkaya (Missouri University of Science and Technology, USA)

[Using SEIRS Epidemic Models for IoT Botnets Attacks](#)

M. Todd Gardner (University of Missouri, Kansas City & Federal Aviation Administration, USA); Cory Beard and Deep Medhi (University of Missouri-Kansas City, USA)

Spectral Analysis of Backbone Networks Against Targeted Attacks

Tristan Shatto and Egemen K. Çetinkaya (Missouri University of Science and Technology, USA)

Improving the Robustness to Targeted Attacks in Software Defined Networks (SDN)

Diego F. Rueda and Eusebi Calle (University of Girona, Spain); Jose Luis Marzo (Universitat de Girona, Spain)

Keynote 2

Multi-layer resilience schemes and their control plane support

Victor Lopez (Telefonica, Spain)

Session 4 - Disaster

Analysis of Node-Resilience Strategies under Natural Disasters

Manuel Aprile (École Polytechnique Fédérale de Lausanne, Switzerland); Natalia Castro (Universidad de la República, Uruguay); Franco Robledo (Facultad de Ingeniería, Universidad de la República, Uruguay); Pablo Gabriel Romero (Universidad de la República, Uruguay)

Determination of the Minimum Cost Pair of D-Geodiverse Paths

Amaro F. de Sousa (Institute of Telecommunications, University of Aveiro, Portugal); Dorabella Santos (Instituto de Telecomunicações - Pólo de Aveiro, Portugal); Paulo P Monteiro (Universidade de Aveiro & Instituto de Telecomunicações, Portugal)

Multi-Carrier Interconnection-based Emergency Packet Transport Network Planning in Disaster Recovery

Sugang Xu (National Institute of Information and Communications Technology, Japan); Noboru Yoshikane (KDDI Research, Inc., Japan); Masaki Shiraiwa (National Institute of Information and Communications Technology, Japan); Takehiro Tsuritani (KDDI R&D Laboratories, Inc., Japan); Hiroaki Harai (National Institute of Information and Communications Technology, Japan); Yoshinari Awaji (National Institute of Information and Communications Technology (NICT), Japan); Naoya Wada (NICT, Japan)

Session 5 - 5G

Survivable BBU Hotel placement in a C-RAN with an Optical WDM Transport

Bahare Masood Khorsandi and Carla Raffaelli (University of Bologna, Italy); Lena Wosinska and Paolo Monti (KTH Royal Institute of Technology, Sweden); Matteo Fiorani (Ericsson Research, Sweden)

Survivability of Fixed Mobile Convergent Access Networks

Attila Mitsenkov and Tibor Cinkler (Budapest University of Technology and Economics, Hungary); Achille Pattavina and Francesco Musumeci (Politecnico di Milano, Italy)

AI for SLA Management in Programmable Networks

Imen Grida Ben Yahia (Orange Labs, France); Jaafar Bendriss (Orange Lab, France); Prosper Chemouil (Orange Labs & OLN/CNC, France); Djamel Zeglache (Institut Mines-Telecom, Telecom SudParis & UMR 5157 CNRS - Samovar, France)

RECODIS Session at DRCN

[The Robust Node Selection Problem aiming to Minimize the Connectivity Impact of any Set of \$p\$ Node Failures](#)

Amaro F. de Sousa (Institute of Telecommunications, University of Aveiro, Portugal); Deepak Mehta (United Technologies Research Centre, Ireland); Dorabella Santos (Instituto de Telecomunicações - Pólo de Aveiro, Portugal)

[A repeated game formulation of network embedded coding for multicast resilience in extreme conditions](#)

Christian Esposito (University of Salerno, Italy); Aniello Castiglione and Francesco Palmieri, CG (Università di Salerno, Italy); Florin Pop (University Politehnica of Bucharest, Romania); Jacek Rak (Gdansk University of Technology, Poland)

[Interdependence between Power Grids and Communication Networks: A Resilience Perspective](#)

Lúcia Martins (University of Coimbra & INESC-Coimbra, Portugal); Rita Girão-Silva (FCTUC, University of Coimbra & INESC-Coimbra, Portugal); Álvaro Gomes (FCTUC, Portugal); Luisa Maria Garcia Jorge (IPB & INESC Coimbra, Portugal); Francesco Musumeci (Politecnico di Milano, Italy); Jacek Rak (Gdansk University of Technology, Poland)

[Enumerating Shared Risk Link Groups of Circular Disk Failures Hitting \$k\$ nodes](#)

Balázs Vass (Budapest University of Technology and Economics, Hungary); Erika R. Bérczi-Kovács (Eötvös University, Budapest, Hungary); János Tapolcai (Budapest University of Technology and Economics, Hungary)