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Qianqian Zhang and Walid Saad (Virginia Tech, USA); Mehdi Bennis (Centre of Wireless Communications, University of Oulu, Finland); Mérouane Debbah (Huawei, France)

Price-Based Resource Allocation in Spectrum-Sharing OFDMA Femtocell Networks

Ali Rahmati and Vahid Shah-Mansouri (University of Tehran, Iran); Dusit Niyato (Nanyang Technological University, Singapore)

On the Performance of Relay-Assisted D2D Networks under Spatially Correlated Interference

Rachad Atat (University of Kansas & Information and Telecommunication Technology Center, USA); Lingjia Liu (University of Kansas, USA)

DiffFlow: Differentiating Short and Long Flows for Load Balancing in Data Center Networks

Francisco Carpio (Technische Universität Braunschweig, Germany); Anna Engelmann and Admela Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany)

Avoiding Collisions by Time Slot Reduction Supporting Voice and Video in 802.11 Networks

Rafael A da Silva (Federal University of Parana, Brazil); Aldri Santos (Federal University of Parana (UFPR) & Carnegie Mellon University (CMU), Brazil); Michele Nogueira (Federal University of Parana (UFPR), Brazil & Carnegie Mellon University (CMU), USA); Khaled Boussetta (University of Paris 13 & L2TI - University of Paris 13); Nadjib Achir (University of Paris 13 & L2TI - University of Paris 13, France)

Supervised Machine Learning-based Routing for Named Data Networking

Leonce Mekinda (Orange Labs & Telecom Paristech, France); Luca Muscariello (Cisco Systems Inc., France)

A novel Interest Flooding Attacks Detection and Countermeasure Scheme in NDN

Yonghui Xin and Yang Li (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China); Wei Wang (Institute of Telecommunication Satellite, China Academy of Space Technology, P.R. China); Weiyuan Li and Xin Chen (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China)

Towards the NFVI-assisted ICN: Integrating ICN Forwarding into the Virtualization Infrastructure

Kazuaki Ueda (KDDI R&D Laboratories, Inc, Japan); Kenji Yokota (KDDI R&D Laboratories, Inc., Japan); Jun Kurihara (KDDI R&D Laboratories Inc., Japan); Atsushi Tagami (KDDI Research, Inc., Japan)

P2P Cache Transmit Power Allocation for Minimizing Latency Over Information-Centric Networks

Xi Zhang (Texas A&M University, ECE Department, USA); Qixuan Zhu (Texas A&M University, USA)

Achieving Scalable Push Multicast Services Using Global Name Resolution

Shreyasee Mukherjee (WINLAB, Rutgers University, USA); Francesco Bronzino (Rutgers University & WINLAB, USA); Suja Srinivasan and Jiachen Chen (WINLAB, Rutgers University, USA)

### IS-S&P: Interactive Session: Security and Privacy

Room: Columbia Foyer - Terrace Level

Chair: Khaled Rabieh (Sam Houston State University, USA)

Silent Battery Draining Attack Against Android Systems by Subverting Doze Mode

Ting Chen, Haiyang Tang and Kuang Zhou (University of Electronic Science and Technology of China (UESTC), P.R. China); Xiao-song Zhang (University of Electronic Science and Technology of China, P.R. China); Xiaodong Lin (University of Ontario Institute of Technology, Canada)

MVP: An Efficient Anonymous E-voting Protocol

You Zhou, Yian Zhou, Shigang Chen and Samuel Wu (University of Florida, USA)

Secure Task Recommendation in Crowdsourcing

Jiangang Shu and Xiaohua Jia (City University of Hong Kong, Hong Kong)

Spatio-Temporal Artificial Noise Design for Secure MISOSE-OFDM Systems

Ahmed El Shafie (University of Texas at Dallas, USA); Zhiguo Ding (Lancaster University, United Kingdom); Naofal Al-Dhahir (University of Texas at Dallas, USA)

A novel 6LoWPAN-ND extension to enhance privacy in IEEE 802.15.4 networks

Luca Brilli (Università di Firenze, Italy); Tommaso Pecorella (Università degli Studi di Firenze, Italy); Laura Pierucci and Romano Fantacci (University of Florence, Italy)

Secure Cooperative AF Relaying Networks with Untrustworthy Relay Nodes

Wei Wang, Kah Chan Teh and Kwok Hung Li (Nanyang Technological University, Singapore)

### **MWN.14: Caching and Offloading**

Room: Kalorama - Lobby Level

Chair: Zhi Liu (Waseda University, Japan)

Breaking the Economic Barrier of Caching in Cellular Networks: Incentives and Contracts

Kenza Hamidouche (Supelec, France); Walid Saad (Virginia Tech, USA); Mérouane Debbah (Huawei, France)

Impact of User Mobility on D2D Caching Networks

Sameh Hosny (The Ohio State University, USA); Atilla Eryilmaz and Hesham EIGAMAL (The Ohio State University)

Modeling and Analysis for Cache-enabled Cognitive D2D Communications in Cellular Networks

Chenchen Yang and Xingya Zhao (Shanghai Jiao Tong University, P.R. China); Yao Yao (Huawei Technologies Co., Ltd., P.R. China); Bin Xia (Shanghai Jiao Tong University, P.R. China)

Delay Analysis and Optimization in Cache-enabled Multi-Cell Cooperative Networks

Yaping Sun and Zhiyong Chen (Shanghai Jiao Tong University, P.R. China); Hui Liu (Shanghai JiaoTong University, P.R. China)

An Efficient Social-aware Computation Offloading Algorithm in Cloudlet System

Ling Tang (Nanjing University of Science and Technology, P.R. China); Xu Chen (University of Goettingen, Germany & Sun Yat-Sen University, P.R. China)

### **MWN.15: IoT and M2M**

Room: Albright - Terrace Level

Chair: Qiben Yan (University of Nebraska-Lincoln, USA)

A Mobility-Supporting MAC Scheme for Bursty Traffic in IoT and WSNs

Georgios Z. Papadopoulos (Télécom Bretagne / Institut Mines-Télécom, France); Vasileios Kotsiou (University of Strasbourg); Antoine Gallais (University of Strasbourg, France); George Oikonomou (University of Bristol, United Kingdom); Periklis Chatzimisios (Alexander TEI of Thessaloniki, Greece); Theo Tryfonas (University of Bristol, United Kingdom); Thomas Noel (University of Strasbourg, France)

Random Access for Machine-Type Communication based on Bloom Filtering

Nuno K Pratas (Aalborg University, Denmark); Ćedomir Stefanović (Aalborg University & University of Novi Sad, Denmark); German Corrales Madueño and Petar Popovski (Aalborg University, Denmark)

A Data Reconstruction Model Addressing Loss and Faults in Medical Body Sensor Networks

Haibin Zhang and Jiajia Liu (Xidian University, P.R. China); Ai-Chun Pang (National Taiwan University, Taiwan); Rong Li (Xidian University, P.R. China)

A Truthful Mechanism for Prioritized Medical Packet Transmissions in Beyond-WBANs

Changyan Yi and Jun Cai (University of Manitoba, Canada)

A Hierarchical Game Approach for Visible Light Communication and Multi-Hop D2D Heterogeneous Network

Huaqing Zhang (University of Houston, USA); Wenbo Ding (Georgia Institute of Technology, USA); Jian Song (Tsinghua University, P.R. China); Zhu Han (University of Houston, USA)

### **NGN.9: Next Generation Network II**

Room: Cabinet - Concourse Level

Chair: Georgios Z. Papadopoulos (Télécom Bretagne / Institut Mines-Télécom, France)

The Cost of the Path Not Taken

Max Schuchard, John Geddes, Mike Schliep and Nicholas Hopper (University of Minnesota, USA)

On Progressive Recovery in Interdependent Cyber Physical Systems

Yangming Zhao, Mohammed Pithapur and Chunming Qiao (State University of New York at Buffalo, USA)

Efficient Distributed Joint Detection of Widespread Events in Large Networked Systems

Jiyu Chen (East China Normal University, P.R. China); Zhiping Cai (National University of Defense Technology, USA & National University of Defense Technology, P.R. China); Shiping Chen (University of Shanghai for Science and Technology, P.R. China)

Benefits of Programmable Topological Routing Policies in RINA-enabled Large-scale Datacenters

Sergio Leon and Jordi Perelló (Universitat Politècnica de Catalunya (UPC), Spain); Davide Careglio (Universitat Politècnica de Catalunya, Spain); Eduard Grasa (Fundació i2CAT, Internet i Innovació Digital a Catalunya, Spain); Diego Lopez and Pedro A. Aranda Gutierrez (Telefonica I+D, Spain)

On Measurement Endpoint Placement using Genetic Algorithms for Network Observability

Andreas Johnsson and Catalin Meirosu (Ericsson Research, Sweden)

### ONS.4: Elastic Optical Networks

Room: Columbia 8 - Terrace Level

Chair: Xiaojun Cao (Georgia State University, USA)

Balancing Data Security and Blocking Performance with Spectrum Randomization in Optical Networks

Sandeep Kumar Singh (TU Braunschweig, Germany); Wolfgang Bziuk (Technische Universität Braunschweig, Germany); Admela Jukan (Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany)

On QoS-Assured Degraded Provisioning in Service Differentiated Multi-Layer Elastic Optical Networks

Zhizhen Zhong (Tsinghua University & Tsinghua National Laboratory for Information Science and Technology, P.R. China); Jipu Li and Nan Hua (Tsinghua University, P.R. China); Gustavo Bittencourt Figueiredo (Federal University of Bahia, Brazil); Yanhe Li and Xiaoping Zheng (Tsinghua University, P.R. China); Biswanath Mukherjee (University of California, Davis, USA)

Multi-path Fragmentation-aware Advance Reservation Provisioning in Elastic Optical Networks

Ruijie Zhu (Beijing University of Posts and Telecommunications, P.R. China); Jason P. Jue and Ashkan Yousefpour (University of Texas at Dallas, USA); Yongli Zhao (Beijing University of Posts and Telecommunications, P.R. China); Hui Yang (Beijing University of Posts and Telecommunications (BUPT), P.R. China); Jie Zhang and Xiaosong Yu (Beijing University of Posts and Telecommunications, P.R. China); Nannan Wang (University of Texas at Dallas, USA)

Offline Distance-Adaptive Routing and Spectrum Assignment in Mesh Elastic Optical Networks

Sahar Talebi and George N. Rouskas (North Carolina State University, USA); Iyad Katib (King Abdulaziz University, Saudi Arabia)

Algorithm for Protection of Space Division Multiplexing Elastic Optical Networks

Helder Oliveira (University of Campinas, Brazil); Nelson L. S. da Fonseca (State University of Campinas, Brazil)

### SAC-ANS.3: Access Networks and Systems

Room: Georgetown East - Concourse Level

Chair: Luca Valcarenghi (Scuola Superiore Sant'Anna, Italy)

Analysis of the Failure Tolerance of Linear Access Networks

Frederic Giroire (CNRS, France); Juan-Carlos Maureira (Center of Mathematical Modeling, University of Chile, Chile)

Delay analysis of converged Medium Transparent fixed service Optical-Wireless networks

George Kalfas (Aristotle University of Thessaloniki & Technical University of Catalonia, Greece); John S Vardakas (IQUADRAT Informatica S. L. Barcelona, Spain); Nikos Pleros (Aristotle University of Thessaloniki, Greece); Luis Alonso (Universidad Politecnica de Catalunya-BarcelonaTECH & Telecommunications and Aerospace Engineering School of Castelldefels, Spain); Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

Content Delivery Networks as a Virtual Network Function: a Win-win ISP-CDN Collaboration

Nicolas Herbaut (University of Bordeaux & Labri, France); Daniel Négru (University of Bordeaux, France); Yiping Chen (Orange Labs, France); Pantelis A. Frangoudis (INRIA Rennes-Bretagne Atlantique, France); Adlen Ksentini (Eurecom, France)

Per-Line Power Controlled Lattice-Reduction Aided Zero-Forcing Precoding for G.fast Downstream

Miroslav Hekrdla (ERA & ERA, Czech Republic); Andrea Matera and Umberto Spagnolini (Politecnico di Milano, Italy); Weiyang Wang (Huawei Technology Co., Ltd., P.R. China)

Non-preemptive Coflow Scheduling and Routing

Ruozhou Yu, Guoliang Xue and Xiang Zhang (Arizona State University, USA); Jian Tang (Syracuse University, USA)

### **SAC-BD.3: Big Data Storage and Communications**

Room: Holmead East - Lobby Level

Chair: Hongfang Yu (University of Electronic Science and Technology of China, P.R. China)

Revenue Driven Virtual Machine Management in Green Datacenter Networks Towards Big Data

Liang Zhang (New Jersey Institute of Technology, USA); Tao Han (University of North Carolina at Charlotte, USA); Nirwan Ansari (New Jersey Institute of Technology, USA)

Most Calls are Local (but Some are Regional): Dissecting Cellular Communication Patterns

Arvind Narayanan, Saurabh Verma and Zhi-Li Zhang (University of Minnesota, USA)

Coordinated Data Assignment: A novel Scheme for Big Data Over Cached Cloud-RAN

Somayeh Mosleh, Lingjia Liu, Hongyan Hou and Yang Yi (University of Kansas, USA)

Efficient and Low-delay Task Scheduling for Big Data Clusters in A Theoretical Perspective

Yuanxiang Gao, Hongfang Yu and Shouxi Luo (University of Electronic Science and Technology of China, P.R. China); Shui Yu (Deakin University, Australia)

QoS Correlation-Aware Service Composition for Unified Network-Cloud Service Provisioning

Jun Huang (Chongqing University of Posts and Telecomm, P.R. China); Shihao Li (Chongqing University of Posts and Telecommunications, P.R. China);

Qiang Duan (The Pennsylvania State University, USA); Ruozhou Yu (Arizona State University, USA); Shui Yu (Deakin University, Australia)

### **SAC-SG&PLC.2: Smart Grid and Power Line Communications II**

Room: Holmead West - Lobby Level

Chair: Hoang Thai Dinh (Nanyang Technological University, Singapore)

Cyclostationary Noise Modeling Based on Frequency-Shift Filtering in NB-PLC

Mahmoud Elgenedy, Mostafa Sayed and Ahmed El Shafie (University of Texas at Dallas, USA); Il Han Kim (Texas Instruments, USA); Naofal Al-Dhahir (University of Texas at Dallas, USA)

Performance Modeling for Smart Grid Networks Over Impulsive Bandpass AWS $\alpha$ SN Channels

Fan Yang (University of Electronic Science and Technology of China, P.R. China); Xi Zhang (Texas A&M University, ECE Department, USA)

On the Impact of PLC Backhauling in Multi-User Hybrid VLC/RF Communication Systems

Mohamed Kashef (Texas A&M University at Qatar, Qatar); Mohamed M. Abdallah (Hamad Bin Khalifa University, Qatar); Naofal Al-Dhahir (University of Texas at Dallas, USA); Khalid A. Qaraqe (Texas A&M University at Qatar, USA)

Impulsive Noise Cancellation for MIMO-OFDM PLC Systems: a Structured Compressed Sensing Perspective

Sicong Liu (Tsinghua University & Research Institute of Information Technology, Tsinghua National Laboratory of Information Science and Technology, P.R. China);

Fang Yang (Tsinghua University, P.R. China); Wenbo Ding (Georgia Institute of Technology, USA); Jian Song (Tsinghua University, P.R. China); Zhu Han (University of Houston, USA)

Mutual Preamble Detection for Full Duplex Broadband Power Line Communications

Yinjia Huo (the University of British Columbia, Canada); Gautham Prasad, Lutz Lampe and Victor C.M. Leung (University of British Columbia, Canada)

### **SPC.8: Signal Detection and Decoding II**

Room: Columbia 3 - Terrace Level



Chair: Nan Yang (Australian National University, Australia)

Gaussian Message Passing Iterative Detection for MIMO-NOMA Systems with Massive Access

Lei Liu (Xidian University, P.R. China); Chau Yuen (Singapore University of Technology and Design, Singapore); Yong Liang Guan (Nanyang Technological University, Singapore); Ying Li (University of Xidian, P.R. China); Chongwen Huang (SUTD, Singapore)

Performance and Compensation of I/Q Imbalance in Differential STBC-OFDM

Lei Chen (University of Electronic Science and Technology of China, P.R. China); Ahmed G Helmy (University of Texas at Dallas, USA); Guangrong Yue and Shaoqian Li (University of Electronic Science and Technology of China, P.R. China); Naofal Al-Dhahir (University of Texas at Dallas, USA)

Algorithm and Digital Circuit for Blind Frequency and Band Estimation in Spans with Multiple Signals

José A. Bianco, Filho (UNICAMP, Brazil); Cesar G Chaves and Eduardo de Lima (Eldorado Research Institute, Brazil); Luís Geraldo P. Meloni (University of Campinas & School of Electrical and Computer Engineering, Brazil)

Wideband Spectrum Reconstruction with Multicoset Sub-Nyquist Sampling and Collision Classification

Raied Caromi (National Institute of Standard and Technology, USA); Jae-Kark Choi (National Institute of Standards and Technology, USA); Wen-Bin Yang (NIST, USA); Michael R. Souryal (National Institute of Standards and Technology, USA)

Adaptively Regularized Compressive Spectrum Sensing From Real-time Signals to Real-time Processing

Xingjian Zhang, Yuan Ma and Yue Gao (Queen Mary University of London, United Kingdom)

### SPC.9: Energy Efficiency and Energy Harvesting

Room: Columbia 4 - Terrace Level

Chair: Ioannis Krikidis (University of Cyprus, Cyprus)

On Communications under Stochastic Energy Harvesting with Noisy Channel State Information

Mohamed Ridha Zenaidi (KAUST, Saudi Arabia); Zouheir Rezki (University of Idaho, USA); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

Per-antenna Power Minimization in Symbol-Level Precoding

Danilo Spano (University of Luxembourg, Luxembourg); Maha Alodeh (SnT, Luxembourg); Symeon Chatzinotas (University of Luxembourg, Luxembourg); Björn Ottersten (University of Luxembourg, Luxembourg)

Distributed Robust Power Minimization for the Downlink of Multi-Cloud Radio Access Networks

Oussama Dhifallah (Harvard University, USA); Hayssam Dahrouj (Effat University, Canada); Tareq Y. Al-Naffouri (King Abdullah University of Science and Technology, USA); Mohamed-Slim Alouini (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)

Robust Optimization with Probabilistic Constraints for Power-Efficient and Secure SWIPT

Tuan Anh Le, Quoc-Tuan Vien and Huan X Nguyen (Middlesex University, United Kingdom); Derrick Wing Kwan Ng (University of New South Wales, Australia); Robert Schober (University of British Columbia, Canada)

Outage Probability of Heterogeneous Cellular Networks with Full-Duplex Small Cells

Mhd Omar Alkadri, Yansha Deng and Arumugam Nallanathan (King's College London, United Kingdom)

### WCS.25: Energy Harvesting II

Room: Embassy - Terrace Level

Chair: Bin Xia (Shanghai Jiao Tong University, P.R. China)

Multi-Antenna SWIPT Relaying Systems: Impact of Antenna Correlation and Channel State Information

Han Liang and Caijun Zhong (Zhejiang University, P.R. China); Xiaoming Chen (Nanjing University of Aeronautics and Astronautics, P.R. China); Himel A Suraweera (University of Peradeniya, Sri Lanka); Zhaoyang Zhang (Zhejiang University, P.R. China)

Resource Allocation in SWIPT Enabled Heterogeneous Cloud Small Cell Networks with Incomplete CSI

Haijun Zhang (The University of British Columbia, Canada); Jiali Du (BUCT, P.R. China); Julian Cheng and Victor C.M. Leung (University of British Columbia, Canada)

Information and Energy Beamforming in MIMO Wireless Powered Systems





















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Vitaly Petrov, Mikhail Komarov and Dmitri Moltchanov (Tampere University of Technology, Finland); Josep M Jornet (University at Buffalo, USA); Yevgeni Koucheryavy (Tampere University of Technology, Finland)

Interference Mitigation Using Asynchronous Transmission and Sampling Diversity

Mehdi Ganji and Hamid Jafarkhani (University of California, Irvine, USA)

### **WCS.30: Wireless Networks II**

Room: Du Pont - Terrace Level

Chair: Jean-Marie Gorce (INSA-Lyon, France)

Stochastic Analysis of 802.11 Uplink with Dynamic Sensitivity Control

Zhenzhe Zhong (Orange Labs, France); Fengming Cao (Toshiba Research Europe, United Kingdom)

Provisioning Statistical QoS for Coordinated Communications with Limited Feedback

Mohammad Ghadir Khoshkholgh Dashtaki (UBC, Canada); Keivan Navaie (Lancaster University, United Kingdom); Kang G. Shin (University of Michigan, USA); Victor C.M. Leung (University of British Columbia, Canada)

Sensor Deployment in Heterogeneous Wireless Sensor Networks

Jun Guo and Hamid Jafarkhani (University of California, Irvine, USA)

A Stochastic Stability Characterization of the FM Algorithm in Random Wireless Networks

Zhengyuan Zhou, Daniel Miller, Nicholas Bambos and Peter Glynn (Stanford University, USA)

Learning in Markov Game for Femtocell Power Allocation with Limited Coordination

Wenbo Wang (Rochester Institute of Technology, USA); Pengda Huang (University of Electronic Science and Technology of China, P.R. China); Peizhao Hu (Rochester Institute of Technology, USA); Jing Na (University of Bristol, United Kingdom); Andres Kwasinski (Rochester Institute of Technology, USA)