

The 34th International Conference on Distributed Computing Systems (ICDSC 2014)

Final Program

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Monday, June 30th

9:00-17:00 (Check individual workshop programs for exact start and end times)	Workshop 1 ADSN 2014 (The 13th International Workshop on Assurance in Distributed Systems and Networks) Room: A204, Building A	Workshop 2 HotPOST'14 (The 6th International Workshop on Hot Topics in Peer-to-peer computing and Online Social neTworking) Room: A301, Building A	Workshop 3 DCPerf 2014 (The 4th international workshop on Data Center Performance) Room: A206, Building A	Workshop 4 DASec 2014 (The First International Workshop on Big Data Analytics for Security) Room: A202, Building A
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Tuesday, July 1st

9:00-9:30	Welcome remarks Location: Salón de Actos, Building C
9:30-10:30	Keynote: "How virtualization and SDN are changing the world" Pablo Molinero (Ericsson, Product Manager, SDN and Policy Control) Location: Salón de Actos, Building C
10:30-11:00	<i>Coffee Break</i>

11:00-13:00	<p>Session A1: Crowdsourcing & Social Networks Chair: Roman Vitenberg Location: Room B1, Building B.</p> <p>"On task assignment for real-time reliable crowdsourcing". Ioannis Boutsis and Vana Kalogeraki.</p> <p>"Towards Truthful Mechanisms for Mobile Crowdsourcing with Dynamic Smartphones". Yanmin Zhu, Qian Zhang, Hongzi Zhu, Jiadi Yu, Jian Cao, Lionel M. Ni.</p> <p>"Community-based Identity Validation on Online Social Networks". Leila Bahri, Barbara Carminati and Elena Ferrari.</p> <p>"Efficient Data Forwarding in Mobile Social Networks with Diverse Connectivity Characteristics". Xiaomei Zhang and Guohong Cao.</p>	<p>Session B1: Energy Efficiency Chair: Tarek Abdelzaher Location: Room B2, Building B.</p> <p>"Modeling WiFi Active Power/Energy Consumption in Smartphones". Li Sun, Ramanujan K. Sheshadri, Wei Zheng and Dimitrios Koutsonikolas.</p> <p>"Fuel Cell Generation in Geo-Distributed Cloud Services: A Quantitative Study". Zhi Zhou, Fangming Liu, Bo Li, Baochun Li, Hai Jin, Ruolan Zou and Zhiyong Liu.</p> <p>"Optimal Energy Cost for Strongly Stable Multi-hop Green Cellular Networks". Weixian Liao, Ming Li, Sergio Salinas, Pan Li and Miao Pan.</p> <p>"Thermal Modeling for a HVAC Controlled Real-life Auditorium". Yong Fu, Mo Sha, Chengjie Wu, Andrew Kutta, Anna Leavey, Chenyang Lu, Humberto Gonzalez, Weining Wang, Bill Drake, Yixin Chen, Pratim Biswas.</p>
13:00-14:00	<i>Lunch</i>	
14:00-15:30	<p>Session A2: Big Data & Data Management Chair: Daudjee, Khuzaima Location: Room B1, Building B.</p> <p>"Exploring the Use of Diverse Replicas for Big Location Tracking Data". Ye Ding, Haoyu Tan, Wuman Luo and Lionel M. Ni.</p> <p>"WOHA: Deadline-Aware Map-Reduce Workflow Scheduling Framework over Hadoop Cluster". Shen Li, Shaohan Hu, Shiguang Wang, Lu Su, Tarek Abdelzaher, Indranil Gupta and Richard Pace.</p> <p>"STI-BT: A Scalable Transactional Index". Nuno Diegues and Paolo Romano.</p>	<p>Session B2: Mobile and Automotive networks Chair: Raghu K. Ganti Location: Room B2, Building B.</p> <p>"SOR: An Objective Ranking System Based on Mobile Phone Sensing". Xiang Sheng, Jian Tang, Jing Wang, Chenfei Gao, Guoliang Xue.</p> <p>"The tempo-spatial information dissemination properties of mobile opportunistic networks with Levy mobility". Shengling Wang, Xia Wang, Xiuzhen Cheng, Jianhui Huang, Rongfang Bie.</p> <p>"Cooperative and Efficient Real-time Scheduling for Automotive Communications". Yu Hua, Lei Rao, Xue Liu and Dan Feng.</p>
15:30-16:00	<i>Coffee Break</i>	

16:00-18:00	<p>Session A3: Big Data Chair: Antonio Fernandez Location: Room B1, Building B.</p> <p>"Adaptive Partitioning of Large-Scale Dynamic Graphs". Luis M. Vaquero, Felix Cuadrado, Dionysios Logothetis, Claudio Martella.</p> <p>"Sim-watchdog: leveraging temporal similarity for anomaly detection in dynamic graphs". Guanhua Yan and Stephan Eidenbenz.</p> <p>"On Limits of Travel Time Predictions: Insights from a New York City Case Study". Raghu Ganti, Mudhakar Srivatsa, Tarek Abdelzaher.</p> <p>"Learning from the Past: Intelligent On-Line Weather Monitoring based on Matrix Completion". Kun Xie, Lele Wang, Xin Wang, Jigang Wen and Gaogang Xie.</p>	<p>Session B3: Privacy Chair: Soriente, Claudio Location: Room B2, Building B.</p> <p>"e-PPI: Locator Service in Information Networks with Personalized Privacy Preservation". Yuzhe Tang, Ling Liu, Arun Iyengar, Kisung Lee and Qi Zhang.</p> <p>"Enabling Privacy-preserving Image-centric Social Discovery". Xingliang Yuan, Xinyu Wang, Cong Wang, Anna Squicciarini and Kui Ren.</p> <p>"Providing Efficient Privacy-Aware Incentives for Mobile Sensing". Qinghua Li and Guohong Cao.</p> <p>"No NAT'd User left Behind: Fingerprinting Users behind NAT from NetFlow Records alone". Nino Vincenzo Verde, Giuseppe Ateniese, Emanuele Gabrielli, Luigi Vincenzo Mancini and Angelo Spognardi.</p>
20:30-23:00	<p>Reception Location: Restaurante Samarkanda.</p>	

Wednesday, July 2nd

9:30-10:30	<p>Keynote: "Cloud 3.0: Industry Transformation on the Cloud" Daniel M. Dias (Director of Cloud Innovation Technologies at the IBM T. J. Watson Research Center) Location: Salón de Actos, Building C</p>
10:30-11:00	<p><i>Coffee Break</i></p>

<p>11:00-13:00</p>	<p>Session A4: Cloud Data Centers (I) Chair: Flavio Junqueira Location: Room B1, Building B.</p> <p>"OpenSample: A Low-latency, Sampling-based Measurement Platform for SDN". Junho Suh, Taekyoung Kwon, Colin Dixon, Wes Felter and John Carter.</p> <p>"Scalable Traffic-Aware Virtual Machine Management for Cloud Data Centers". Fung Po Tso, Konstantinos Oikonomou, Eleni Kavvadia, Dimitrios P. Pazaros.</p> <p>"Energy-Efficient Flow Scheduling and Routing with Hard Deadlines in Data Center Networks". Lin Wang, Fa Zhang, Kai Zheng, Athanasios V. Vasilakos, Shaolei Ren and Zhiyong Liu.</p> <p>"Bandwidth Guarantee under Demand Uncertainty in Multi-tenant Clouds". Lei Yu and Haiying Shen.</p>	<p>Session B4: P2P Chair: Etienne Riviere Location: Room B2, Building B.</p> <p>"Measuring and Evaluating Live Content Consistency in a Large-Scale CDN". Guoxin Liu, Haiying Shen, Harrison Chandler and Jin Li.</p> <p>"MOLStream: A Modular Rapid Development and Evaluation Framework for Live P2P Streaming". Roy Friedman, Alex Libov and Ymir Vigfusson.</p> <p>"Polystyrene: The Decentralized Data Shape that Never Dies". Simon Bouget, Hoel Kervadec, Anne-Marie Kermarrec, François Taïani.</p> <p>"An Interest-based Per-Community P2P Hierarchical Structure for Short Video Sharing on YouTube". Haiying Shen, Yuhua Lin and Harrison Chandler.</p>
<p>13:00-14:00</p>	<p><i>Lunch</i></p>	
<p>14:00-15:30</p>	<p>Session A5: Cloud Data Centers (II) Chair: Roy Friedman Location: Room B1, Building B.</p> <p>"Two-Party Fine-Grained Assured Deletion of Outsourced Data in Cloud Systems". Zhen Mo, Yan Qiao and Shigang Chen.</p> <p>"Towards Online, Accurate, and Scalable QoS Prediction for Runtime Service Adaptation". Jieming Zhu, Pinjia He, Zibin Zheng and Michael R. Lyu.</p> <p>"Columbus: Configuration Discovery for Clouds". Rahul Balani, Deepak Jeswani, Dipyaman Banerjee and Akshat Verma.</p>	<p>Session B5: Theory (I) Chair: Mikel Larrea Location: Room B2, Building B.</p> <p>"Counting in Anonymous Dynamic Networks under Worst Case Adversary". Giuseppe Antonio Di Luna, Roberto Baldoni, Silvia Bonomi and Ioannis Chatzigiannakis.</p> <p>"The LevelArray: A Fast, Practical Long-Lived Renaming Algorithm". Dan Alistarh, Justin Kopinsky, Alex Matveev and Nir Shavit.</p> <p>"Deterministic Blind Rendezvous in Cognitive Radio Networks". Sixia Chen, Alexander Russell, Abhishek Samanta and Ravi Sundaram.</p>
<p>15:30-16:00</p>	<p><i>Coffee Break</i></p>	

16:00-17:30	<p>Session A6: OS & Fault-tolerance Chair: Sergio Arévalo Location: Room B1, Building B.</p> <p>"Rethinking State-Machine Replication for Parallelism". Parisa Jalili Marandi, Carlos Eduardo Bezerra, Fernando Pedone.</p> <p>"Propeller: A Scalable Real-Time File-Search Service in Distribute Systems". Lei Xu, Hong Jiang, Lei Tian and Ziling Huang.</p> <p>"Compiler Driven Automatic Kernel Context Migration for Heterogeneous Computing". Ramy Gad, Tim Süß, André Brinkmann.</p>	<p>Session B6: Wireless networks (I) Chair: Indranil Gupta Location: Room B2, Building B.</p> <p>"BOND: Exploring Hidden Bottleneck Nodes in Large-Scale Wireless Sensor Networks". Qiang Ma, Kebin Liu, Tong Zhu, Wei Gong, Yunhao Liu.</p> <p>"Enhancing Visibility of Network Performance in Large-scale Sensor Networks". Xiaoxu Li, Qiang Ma, Zhichao Cao, Kebin Liu and Yunhao Liu.</p> <p>"Domo: Passive Per-Packet Delay Tomography in Wireless Ad-hoc Networks". Yi Gao, Wei Dong, Chun Chen, Jiajun Bu, Tianyu Chen, Mingyuan Xia, Xue Liu, Xianghua Xu.</p>
17:30-18:30	IEEE TDCP Annual Meeting	
20:30-23:00	Banquet Location: Real Café Bernabéu.	

Thursday, July 3rd

9:00-10:30	<p>Session A7: Green Computing Chair: Pedro López Location: Room B1, Building B.</p> <p>"Energy Efficient HVAC System with Distributed Sensing and Control". Cheng Li, Zhenjiang Li, Mo Li, Forrest Meggers, Arno Schlueter and Lim Hock Beng.</p> <p>"SCAPE: Safe Charging with Adjustable PowEr". Haipeng Dai, Yunhuai Liu, Guihai Chen, Xiaobing Wu and Tian He.</p> <p>"Building Green Cloud Services at Low Cost". Josep Lluís Berral, Íñigo Goiri, Thu D Nguyen, Ricard Gavaldà, Jordi Torres and Ricardo Bianchini.</p>	<p>Session B7: Theory (II) Chair: Stefan Schmid Location: Room B2, Building B.</p> <p>"Almost Optimal Channel Access in Multi-Hop Networks With Unknown Channel Variables". Yaqin Zhou, Qiuyuan Huang, Fan Li, Xiang-Yang Li, Min Liu, Zhongcheng Li, Zhiyuan Yin.</p> <p>"Shared-Memory Buffer Management for Heterogeneous Packet Processing". Patrick Eugster, Kirill Kogan, Sergey Nikolenko and Alexander Sirotkin.</p> <p>"Robust Network Tomography in the Presence of Failures". Srikar Tati, Simone Silvestri, Ting He and Thomas La Porta.</p>
10:30-11:00	<i>Coffee Break</i>	

<p>11:00-13:00</p>	<p>Session A8: Cloud Storage Chair: André Brinkmann Location: Room B1, Building B.</p> <p>"Client-centric Benchmarking of Eventual Consistency for Cloud Storage Systems". Wojciech Golab, Muntasir Raihan Rahman, Alvin Auyoung, Kimberly Keeton and Indranil Gupta.</p> <p>"MicroFuge: A Middleware Approach to Providing Performance Isolation in Cloud Storage Systems". Akshay Singh, Xu Cui, Benjamin Cassell, Bernard Wong and Khuzaima Daudjee.</p> <p>"S4D-Cache: Smart Selective SSD Cache for Parallel I/O Systems". Shuibing He, Xian-He Sun and Bo Feng.</p> <p>"Will They Blend?: Exploring Big Data Computation atop Traditional HPC NAS Storage". Ellis Wilson, Mahmut Kandemir and Garth Gibson.</p>	<p>Session B8: CEP and PubSub Chair: Querzoni, Leonardo Location: Room B2, Building B.</p> <p>"T-Storm: Traffic-aware Online Scheduling in Storm". Jielong Xu, Zhenhua Chen, Jian Tang and Sen Su.</p> <p>"Ajira: A Lightweight Distributed Middleware for MapReduce and Stream Processing". Jacopo Urbani, Alessandro Margara, Cerial Jacobs, Spyros Voulgaris and Henri Bal.</p> <p>"Cost-Effective Resource Allocation for Deploying Pub/Sub on Cloud". Vinay Setty, Roman Vitenberg, Gunnar Kreitz, Guido Urdaneta and Maarten Van Steen.</p> <p>"Elastic Scaling of a High-Throughput Content-Based Publish/Subscribe Engine". Raphaël Barazzutti, Thomas Heinze, André Martin, Emanuel Onica, Pascal Felber, Christof Fetzer, Zbigniew Jerzak, Marcelo Pasin, Etienne Rivière.</p>
<p>13:00-14:00</p>	<p><i>Lunch</i></p>	
<p>14:00-15:30</p>	<p>Session A9: Wireless networks (II) Chair: Malek, Miroslaw Location: Room B1, Building B.</p> <p>"TiM: Fine-Grained Rate Adaptation in WLANs". Guanhua Wang, Shanfeng Zhang, Kaishun Wu, Qian Zhang, Lionel M. Ni</p> <p>"NomLoc: Calibration-free Indoor Localization With Nomadic Access Points". Jiang Xiao, Youwen Yi, Lu Wang, Haochao Li, Zimu Zhou, Kaishun Wu and Lionel M. Ni.</p> <p>"Generic Composite Counting in RFID Systems". Haoxiang Liu, Wei Gong, Lei Chen, Wenbo He, Kebin Liu, Yunhao Liu.</p>	<p>Session B9: Theory (III) Chair: Alexey Gostman Location: Room B2, Building B.</p> <p>"Competitive FIB Aggregation without Update Churn". Marcin Bienkowski, Nadi Sarrar, Stefan Schmid and Steve Uhlig.</p> <p>"Achieving Absolutely Optimal Block Pipelining in Organized Network Coded Gossip". Majid Khabbazian and Di Niu.</p> <p>"Lock-free Cuckoo Hashing". Nhan Nguyen and Philippos Tsigas.</p>
<p>15:30-16:00</p>	<p><i>Coffee Break</i></p>	

16:00-
18:00

Session A10: Security

Chair: Nita-Rotaru, Cristina

Location: Room B1, Building B.

"Enforcing Location and Time-based Access Control on Cloud-stored Data".

Elli Androulaki, Claudio Soriente, Luka Malisa and Srdjan Capkun.

"Impact Analysis of Topology Poisoning Attacks on Economic Operation of the Smart Power Grid".

Mohammad Rahman, Ehab Al-Shaer and Rajesh Kavasseri.

"Turret: A Platform for Automated Attack Finding in Unmodified Distributed System Implementations".

Hyojeong Lee, Jeff Seibert, Md Endadul Hoque, Charles Killian and Cristina Nita-Rotaru.

"Incremental Deployment Strategies for Effective Detection and Prevention of BGP Origin Hijacks".

Joseph Gersch, Daniel Massey and Christos Papadopoulos.