TECHNICAL PROGRAM

Pre-Symposium Workshops

Monday September 30, 2013

- 09:00 - 09:30 Registration
- 09:30 - 09:45 Welcome and Opening, João Leitão and Miguel Correia
- 09:45 - 10:30 Keynote
  "On the Role of State Machine Replication in Cloud Infrastructures",
  Alysson Bessani, FCUL, University of Lisbon
- 10:30 - 10:50 Break
- 10:50 - 12:30 Workshop on Dependability Issues in Cloud Computing,
  chaired by Miguel Correia
  "Assessing Data Availability of Cassandra in the Presence of Non-accurate
  Membership", L. Aniello, S. Bonomi, M. Breno and R. Baldoni
  "A Methodology and Supporting Techniques for the Quantitative
  Assessment of Insider Threats", N. Nostro, A. Ceccarelli, A. Bondavalli and
  F. Brancati
  "An Online Failure Prediction System for Private IaaS Platforms", P.
  Capelastegui, A. Navas, F. Huertas, R. Garcia-Carmona and J. Dueñas
  "The TClouds Platform - Concept, Architecture and Instantiations", G.
  Ramunno, P. Smiraglia, L. Antonio Cutillo, A. Bessani and N. Schirmer
- 12:30 - 14:00 Lunch
- 14:00 - 14:45 Keynote
  "Making Geo-replicated Systems Fast When Possible, Consistent If
  Necessary", Rodrigo Rodrigues, FCT, Nova University of Lisbon
- 14:45 - 15:35 Workshop on Planetary-Scale Distributed Systems,
  Ricardo Vilaça
  "Cooperation in Planetary-Scale Epidemic Dissemination", X. Vilaça and L.
  Rodrigues
  "Conflict Classes for Replicated Databases: A Case-Study", A. Nunes, R.
Oliveira and J. Pereira

- **15:35 - 15:55 Break**
- **15:55 - 16:45 Workshop on Planetary-Scale Distributed Systems**, João Leitão
  "Evaluating State Machine Replication Over a WAN", J. Sousa and A. Bessani
- **16:45 - 17:30 Keynote**
  "Towards Data-as-a-Service on Micro-clouds Federations", Étienne Rivière, University of Neuchatel

**Symposium**

**Tuesday October 1, 2013**

- **08:30 - 09:00 Registration**
- **09:00 - 09:30 Welcome and Opening**
- **09:30 - 10:30 Keynote**
  "Global Trends on Cloud Computing", Miguel Moreira, CEO, Portugal Telecom Sistemas de Informação
- **10:30 - 10:45 Break**
- **10:45 - 12:15 Session on Transactions and Consistency**, chaired by Ricardo Jimenez-Peris
  "Non-Monotonic Snapshot Isolation: Scalable and Strong Consistency for Geo-replicated Transactional Systems", M. Ardekani, P. Sutra and M. Shapiro
  "Clock-SI: Snapshot Isolation for Partitioned Data Stores Using Loosely Synchronized Clocks", J. Du, S. Elnikety and W. Zwaenepoel
  "Bumper: Sheltering Transactions from Conflicts", N. Diegues and P. Romano
- **12:15 - 13:45 Lunch**
• 13:45 - 15:15 Session on Detection and Diagnosis, chaired by Sara Bouchenak
  "A Distributed Abstraction Algorithm for Online Predicate Detection”, H. Chauhan, V. Garg, A. Natarajan and N. Mittal
• 15:15 - 15:30 Break
• 15:30 - 17:00 Session on Replication and Reliability, chaired by José Pereira
  "Bounded Delay in Byzantine Tolerant State Machine Replication", Z. Milosevic, M. Biely and A. Schiper
  "Automated Multi-Graceful Degradation", Y. Lin and S. Kulkarni
  "Stabilizing Optimal l-Exclusion Algorithm", H. Rachid, M. Karaata and Y. Adam
• 18:30 - 19:30 Old Town Guided Tour
• 19:30 - 20:30 Welcome Reception

Wednesday October 2, 2013

• 09:00 - 10:00 Keynote
  "European Commission: Vision and Priorities for Cloud Computing", Francisco Medeiros, Deputy Head of Unit on Software and Services, Cloud Computing, European Commission
• 10:00 - 10:30 Best Paper Award Session, chaired by Paulo Veríssimo
• 10:30 - 10:45 Break
• 10:45 - 12:30 Ph.D. Students Session, chaired by Andrea Bondavalli and Shambhu Upadhyaya
- 12:30 - 14:00 Lunch
- 14:00 - 15:30 Session on Handling Uncertainty, chaired by Xavier Défago
  "A Distributed Polling with Probabilistic Privacy", Y. Benkaouz, R. Guerraoui, M. Erradi and F. Huc
  "Consensus with Unknown Participants in Shared Memory", C. Khouri, F. Greve and S. Tixeuil
- 15:30 - 15:45 Break
- 15:45 - 17:15 Session on Modeling and Analysis, chaired by Takahiro Hara
  "Efficient Verification of Distributed Protocols Using Stateful Model Checking", H. Saissi, P. Bokor, C. Muftuoglu, M. Serafini and N. Suri
  "Stochastic Analysis on RAID Reliability for Solid-State Drives", Y. Li, P. Lee and J. Lui
  "Rigorous Performance Evaluation of Self-stabilization Using Probabilistic Model Checking", N. Fallahi, B. Bonakdarpour and S. Tixeuil
  "Validity-based Failure Algebra for Distributed Sensor Systems", T. Brade, S. Zug and J. Kaiser
- 18:00 - 22:00 Conference Dinner

**Thursday October 3, 2013**

- 09:00 - 10:00 Keynote
  "Replication for Fault Tolerance: What Have We Learned in Fourty Years?", André Schiper, École Polytechnique Fédérale de Lausanne
- 10:00 - 10:15 Break
- 10:15 - 11:45 Session on Security, chaired by Edgar Nett
  "Analysis of Malware Propagation in Twitter", A. Sanzgiri, A. Hughes and S. Upadhyaya
"Adaptive Anomaly Identification by Exploring Metric Subspace in Cloud Computing Infrastructures", Q. Guan and S. Fu

- **11:45 - 12:00 Break**
- **12:00 - 13:30 Session on Network Reliability and Integrity**, chaired by Alysson Bessani
  "A Fault-Tolerant Routing Algorithm Design for On-Chip Optical Networks", D. Xiang, Y. Zhang and Y. Xu
  "PIP: Privacy and Integrity Preserving Data Aggregation in Wireless Sensor Networks", V. Kumar and S. Madria
  "Virtual Synchrony Guarantees for Cyber-physical Systems", F. Ferrari, M. Zimmerling, L. Mottola and L. Thiele
- **13:30 Concluding Remarks**