



Period	Monday 3rd October	Tuesday 4th October	Wednesday 5th October
09:00 - 09:30	Opening ceremony		
09:30 - 10:30	K - 1 Aki Nakao	K - 2 Holger Karl	K - 3 Antonio Manzalini
10:30 - 11:00	Coffe Break / Demo	Coffe Break / Demo	Coffe Break / Demo
11:00 - 13:00	TC - 1 Federation, Migration, and Wireless	TC - 4 Data Center	SS - 3 Cloud in Robotics and Cyber Physical Systems
13:00 - 14:30	Lunch	Lunch	Lunch
14:30 - 16:15	TC - 2 Mobile Cloud and ICN	SS - 1 Security and Mobile Cloud	TC - 5 Software Defined Networking
16:15 - 16:45	Coffe Break / Demo	Coffe Break / Demo	Coffe Break / Demo
16:45 - 18:00	TC - 3 Virtual Network Functions	SS - 2 Cloud Benchmarking	TC - 6 Load Management and P2P
18:00 - 19:30	Welcome cocktail		
19:30 - 21:30		Social Dinner	



UNIVERSITÀ DI PISA



Monday, October 3

- 09:00 – 09:30** **Opening Ceremony**
- Paolo Ghezzi*, Deputy Major of the town of Pisa: “Welcome speech”
- Stefano Giordano*, CloudNet General Chair: “From Arpanet to the Cloud: 30 years of networking in Pisa”
- Deep Medhi*, CloudNet TPC Co-chair: “A greeting message from TPC Co-Chairs”
- 09:30 – 10:30** **K-1: Keynote “Application Driven End-to-End Network Slicing, From UE To Cloud” by Aki Nakao, University of Tokyo, Japan**
- 10:30 – 11:00** Coffee Break and **Demo Session**
- 11:00 – 13:00** **TC-1: Federation, Migration, and Wireless**
Session Chair: Silvana Muscella
- Cost-Efficient Algorithms for Critical Resource Allocation in Cloud Federations**
Makhlouf Hadji and Benjamin Aupetit (IRT SystemX, France); Djamal Zeghlache (Institut Mines-Telecom, Telecom SudParis & UMR 5157 CNRS - Samovar, France)
- A Virtual Network PaaS for 3GPP 4G and Beyond Core Network Services**
Mohammad Abu-Lebdeh, Sami Yangui, Diala Naboulsi and Roch Glitho (Concordia University, Canada); Constant Wette Tchouati (Ericsson, Canada)
- GRECO: A Distributed Genetic Algorithm for Reliable Application Placement in Hybrid Clouds**
Ruben Mennes (University of Antwerp, Belgium); Bart Spinnewyn and Steven Latré (University of Antwerp - iMinds, Belgium); Juan Felipe Botero (Universidad de Antioquia, Colombia)
- Bandwidth management VMs live migration in wireless fog computing for 5G networks**
Danilo Amendola, Nicola Cordeschi and Enzo Baccarelli (Sapienza University of Rome, Italy);
- Minimizing Live VM Migration Downtime Using OpenFlow based Resiliency Mechanisms**
Cristian Hernandez Benet, Kyoomars Alizadeh Noghani and Andreas J. Kassler (Karlstad University, Sweden)
- IaaS Migration Using the FELIX Federated Testbed**
Atsuko Takefusa (National Institute of Informatics, Japan); Jason Haga, Fumihiro Okazaki, Katsuhiko Ookubo, Seiya Yanagita and Ryousei Takano (National Institute of Advanced Industrial Science and Technology (AIST), Japan); Tomohiro Kudoh (The University of Tokyo, Japan)
- 13:00 – 14:30** Lunch
- 14:30 – 16:15** **TC-2: Mobile Cloud and ICN**
Session Chair: Brunilde Sansò
- Smart Probabilistic Fingerprinting for Indoor Localization over Fog Computing Platforms**
Andrea Sciarone (University of Genoa, Italy); Claudio Fiandrino (University of Luxembourg); Igor Bisio and Fabio Lavagetto (University of Genoa, Italy); Dzmityr Kliazovich and Pascal Bouvry (University of Luxembourg)
- Improving Multipath TCP for Latency Sensitive Flows in the Cloud**
Wei Wang (Institute of Computing Technology, CAS & University of Chinese Academy of Science, P.R. China); Liang Zhou (University of California, Riverside, USA); Yi Sun (ICT, CAS, P.R. China)
- Energy-efficient and fault-tolerant mobile cloud storage**
Chien-An Chen and Radu Stoleru (Texas A&M University, USA); Geoffrey G Xie (Naval Postgraduate School, USA)
- Enhancing Content Distribution through Information-Aware Mechanisms**
Walid Benchaita (University Pierre et Marie Curie - UPMC, France); Gioacchino Tangari (UCL, United Kingdom); Samir Ghamri-Doudane (Nokia Bell Labs, France); Sebastien Tixeuil (University Pierre & Marie Curie, France)
- Multi-user Mobile Cloud Offloading Game with Computing Access Point**
Meng-Hsi Chen (University of Toronto, Canada); Min Dong (University of Ontario Institute of Technology, Canada); Ben Liang (University of Toronto, Canada)
- 16:15 – 16:45** Coffee Break and **Demo Session**
- 16:45 – 18:00** **TC-3: Virtual Network Functions**
Session Chair: Lukas Kencl
- Joint Power Scaling of Processing Resources and Consolidation of Virtual Network Functions**
Roberto Bruschi (CNIT, Italy); Franco R. Davoli (University of Genoa & CNIT, Italy); Paolo Lago and Jane Frances Pajo (University of Genoa, Italy)
- Transparent Optimization of Inter-Virtual Network Function Communication in Open vSwitch**
Mauricio Vasquez Bernal (Politecnico di Torino, Colombia); Ivano Cerrato and Fulvio Risso (Politecnico di Torino, Italy); David Verbeiren (Intel Corporation NV/SA, Belgium)
- Enabling NFV Services on Resource-Constrained CPEs**
Roberto Bonafiglia and Sebastiano Miano (Politecnico di Torino, Italy); Sergio Nuccio (Telecom Italia, Torino, Italy); Fulvio Risso and Amedeo Sapio (Politecnico di Torino, Italy)
- Energy-Aware Placement and Scheduling of Network Traffic Flows with Deadlines on Virtual Network Functions**

Nicolas N El Khoury, Sara Ayoubi and Chadi Assi (Concordia University, Canada)

18:00 – 19:30 Welcome cocktail at the Abitalia Tower Plaza reception

Tuesday, October 4

09:30 – 10:30 **K-2: Keynote “Application challenges for networks” by Holger Karl, Paderborn University, Germany**

10:30 – 11:00 Coffee Break and **Demo Session**

11:00 – 13:00 **TC-4: Data Center**

Session Chair: Andreas Kessler

Evaluation of Data Center Network Topology Influence on Hadoop MapReduce Performance

Ondrej Tomanek, Zdenek Kouba and Lukas Kencl (Czech Technical University in Prague, Czech Republic)

Augmented data center infrastructure management system for minimizing energy consumption

Yutaka Nakamura, Kazuhiro Matsuda and Morito Matsuoka (Osaka University, Japan)

Multi Objective Virtual Machine Allocation in Cloud Data Centers

Giuseppe Portaluri and Stefano Giordano (University of Pisa, Italy)

On the network performance of Amazon S3 cloud-storage service

Valerio Persico (University of Napoli, Italy); Antonio Montieri (NM2 srl (Italy), Italy); Antonio Pescapé (University of Napoli Federico II, Italy)

Green Cloud Broker: Dynamic Virtual Machine Placement Across Multiple Cloud Providers

Federico Larumbe (Ecole Polytechnique de Montreal & GERAD, Canada); Brunilde Sansò (Ecole Polytechnique de Montreal, Canada)

Model-Driven Policy Framework for Data Centers (Short Paper)

Cosmin Caba, Angelos Mimidis Kentis and Jose Soler (DTU, Denmark)

13:00 – 14:30 Lunch

14:30 – 16:15 **SS-1: Special Session in Security and Mobile Cloud**

Session Chair: Franco Davoli

Application Specific Mobile Edge Computing through Network Softwarization

Ping Du and Akihiro Nakao (The University of Tokyo, Japan)

Seamless Support of Low Latency Mobile Applications with NFV-Enabled Mobile Edge-Cloud

Binxu Yang, Wei Koong Chai and George Pavlou (University College London, United Kingdom); Konstantinos V. Katsaros (Intracom Telecom S.A., Greece)

Validation of Non-Functional Requirements in Cloud Based Systems (Short Paper)

Rashmi Phalnikar (MIT, COE, Pune University, India)

CYCLONE: a Multi-Cloud Federation Platform For Complex Bioinformatics And Energy Applications (Short Paper)

Domenico Gallico and Matteo Biancani (Interoute S.p.A., Italy); Christophe Blanchet, Mohamed Bedri and Jean-Francois Gibrat (CNRS - French Institute of Bioinformatics, France); José I Aznar (I2cat, Spain); Doris Hacker and Maria Kourkouli (QSC, Germany)

SELFNET Virtual Network Functions Manager: a common approach for lifecycle management of NFV applications (Short Paper)

Giacomo Bernini, Elian Kraja, Gino Carrozzo, Giada Landi and Nicola Ciulli (Nextworks, Italy)

On The Breakeven Point Between Cloud-Assisted and Legacy Routing (Short Paper)

Prasun K Dey (University of Nevada, Reno, USA); Murat Yuksel (University of Central Florida, USA)

16:15 – 16:45 Coffee Break and **Demo Session**

16:45 – 18:00 **SS-2: Special Sessioin Cloud Benchmarking**

Session Chair: Alessio Botta

Towards Automated Cost-efficient Data Management for Federated Cloud Services

Vincent C Emeakaroha, Martin Bullman and John P. Morrison (University College Cork, Ireland)

Efficient serving of VPN endpoints on COTS server hardware

Daniel Raumer, Sebastian Gallenmüller, Paul Emmerich, Lukas Märdian and Georg Carle (Technische Universität München, Germany)

Performance evaluation of edge cloud computing system for big data applications

Mauro Femminella, Matteo Pergolesi and Gianluca Reali (University of Perugia, Italy)

Container-based Service Chaining: a Performance Perspective

Sergio Livi, Quentin Jacquemart, Dino Lopez Pacheco and Guillaume Urvoy-Keller (Université de Nice Sophia-Antipolis, France)

19:30 – 21:30 Social Dinner at “*Osteria all'Ussero*”

Villa di Corliano

Via Statale Abetone n.50
Rigoli - S. Giuliano Terme

>>> **Bus will leave at 7 p.m. from Abitalia Tower Plaza Hotel** <<<

Wednesday, October 5

- 09:30 – 10:30** **K-3: Keynote “Towards Artificially Intelligent Networks” by Antonio Manzalini (Telecom Italia, Italy)**
- 10:30 – 11:00** Coffee Break and **Demo Session**
- 11:00 – 13:00** **SS-3: Special Session in Cloud in Robotics and Cyber Physical Systems**
Session Chair: Davide Bacciu
- User Routine Model using a Cloud-Connected Social Robot**
Luis Santos and Jorge Dias (University of Coimbra, Portugal)
- Relieving robots from their burdens: The Cloud Agent concept** (Short Paper)
Aristeidis Thallas (Centre of Research and Technology, Greece); Konstantinos Panayiotou (ORMYLIA Foundation, Greece); Emmanouil Tsardoulis (Centre of Research and Technology & Aristotle University of Thessaloniki, Greece); Andreas Symeonidis and Pericles A Mitkas (Aristotle University of Thessaloniki, Greece); Georgios Karagiannis (ORMYLIA Foundation, Greece)
- The GiraffPlus experience: from Laboratory Settings to Test Sites Robustness** (Short Paper)
Paolo Barsocchi (ISTI-CNR, Italy); Amedeo Cesta, Luca Coraci, Gabriella Cortellessa, Riccardo De Benedictis, Francesca Fracasso, Davide La Rosa and Andrea Orlandini (CNR, Italy); Filippo Palumbo (University of Pisa & CNR)
- Implementing virtual pheromones in BDI robots using MQTT and Jason** (Short Paper)
Michele Bottone (Middlesex University, London, United Kingdom); Filippo Palumbo (University of Pisa & CNR, Italy); Giuseppe Primiero, Franco Raimondi and Richard Stocker (Middlesex University, London, United Kingdom)
- Supporting Hybrid Manufacturing: Bringing Process and Human/Robot Control to the Cloud** (Short Paper)
Paul Grefen and Irene Vanderfeesten (Eindhoven University of Technology, The Netherlands); George Boulதாகakis (European Dynamics, Greece)
- Internet of Robotic Things: context-aware and personalized interventions of assistive social robots** (Short Paper)
Pieter Simoens, Christof Mahieu, Femke Ongenaes, Femke De Backere, Stijn De Pestel, Jelle Nelis and Filip De Turck (Ghent University - iMinds, Belgium); Shirley Elprama, Kilpi Katriina, Jewell Charlotte and An Jacobs (Vrije Universiteit Brussel - iMinds)
- Use Case Evaluation of a Cloud Robotics Teleoperation System** (Short Paper)
Alessandro Manzi, Laura Fiorini and Raffaele Limosani (Scuola Superiore Sant'Anna, Italy); Peter Sinčák (Technical University in Kosice, Slovakia); Paolo Dario (Scuola Superiore Sant'Anna, Italy)
- 13:00 – 14:30** Lunch
- 14:30 – 16:15** **TC-5: Software Defined Networking**
Session Chair: Antonio Cianfrani
- SDN-Guard: DoS Attacks Mitigation in SDN networks**
Lobna Dridi and Mohamed Faten Zhani (École de Technologie Supérieure, Canada)
- Middleware Platform for Distributed Applications Incorporating Robots, Sensors and the Cloud**
Elias De Coninck, Steven Bohez, Sam Leroux, Tim Verbelen, Bert Vankeirsbilck and Pieter Simoens (Ghent University - iMinds, Belgium); Bart Dhoedt (Ghent University, Belgium)
- Analysis of Control Traffic in a Geo-distributed Collaborative Cloud**
Tatiana Sciammarella, Rodrigo S. Couto and Marcelo Gonçalves Rubinstein (Universidade do Estado do Rio de Janeiro, Brazil); Miguel Elias Mitre Campista (Federal University of Rio de Janeiro & GTA, Brazil); Luis Henrique M. K. Costa (Federal University of Rio de Janeiro, Brazil)
- Performance Debugging in SDN Controllers - A Case Study** (Short Paper)
Sania Zara (Namal College, Mianwali, Pakistan); Muhammad Umar Hameed (National University of Science and Technology, Pakistan); Adnan Iqbal and Noman Javed (Namal College Mianwali, Pakistan);; Saqib Ilyas (LUMS University, Pakistan)
- Implementing a Smart SDN Switch with LISP Control Plane as Network Function** (Short Paper)
Antonio Cianfrani, Manuele Mohseni Pour Samii, David Lo Bascio and Marco Polverini (University "La Sapienza" Roma, Italy)
- Cloud networks for ERTMS railways systems** (Short Paper)
Anna Lina Ruscelli, Gabriele Cecchetti and Piero Castoldi (Scuola Superiore Sant'Anna, Italy)
- 16:15 – 16:45** Coffee Break and **Demo Session**
- 16:45 – 17:45** **TC-6: Load Management and P2P**
Session Chair: Fulvio Rizzo
- Towards Decentralized Repository Services for Efficient and Transparent Virtual Machine Operations: The ENTICE Approach**
Dragi Kimovski (University of Innsbruck & University for Information Science and Technology, Austria); Nishant Saurabh (University of Innsbruck, Austria); Sandi Gec and Polona Štefanič (University of Ljubljana, Slovenia); Gabor

Kecskesteti (MTA SZTAKI, Hungary); Vlado Stankovski (University of Ljubljana, Slovenia); Radu Prodan and Thomas Fahringer (University of Innsbruck, Austria)

Incentives for Mobile Cloud Environments through P2P Auctions

Ismael Cuadrado-Cordero (INRIA & IRISA, France); Anne-Cecile Orgerie (CNRS & IRISA, France); Christine Morin (INRIA & IRISA, France)

On Load Management in Service Oriented Networks (Short Paper)

Ehsan Elahi, Jason Barron and Micheál Crotty (Waterford Institute of Technology, Ireland); Miguel Ponce de Leon (Waterford Institute of Technology & TSSG, Ireland); Rashid Mijumbi and Steven Davy (Waterford Institute of Technology, Ireland); Dimitri Staessens and Sander Vrijders (Ghent University - iMinds, Belgium)