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8th IFIP Networking
11-15 May 2009, Aachen, Germany

IFIP Networking 2009 Programme



www.networking-2009.org

CONFERENCE AND GENERAL INFORMATION

Networking 2009 Registration

The registration desk is located on the 6th floor of the SuperC.

Monday, 11 May: 08:00–10:00, 17:00–20:00

Tuesday, 12 May: 08:00–17:00

Wednesday, 13 May: 08:00–17:00

Thursday, 14 May: 08:00–17:00

Friday, 15 May: 08:00–10:00

WiFi Access

Complimentary WiFi Access is available for all conference attendees in the conference halls. Please refer to the additional sheet of paper in your conference bag for access instructions. Furthermore, you will have access at many places in the city of Aachen where you receive the RWTH WLAN service called 'mops'.

Buses and Traveling

Bus tickets can be purchased from the bus driver. Full day tickets valid in the city of Aachen are available for about 6 euros. Please remember to show your ticket to the bus driver every time you board the bus.

Lunch

There is no complimentary lunch included in your registration fee. You may find many good and cheap restaurants within the walking distance of the SuperC. Please have a look at the restaurant map at the end of this booklet.

Social Events

The registration includes access to the CISCO Night and to the Welcome Reception on Monday evening.

The meeting point for all activities is the entrance hall of the SuperC.

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MESSAGE FROM THE GENERAL CHAIR

Welcome message

(probably useless anyway since typically nobody will read stuff like this)

On behalf of the organising committee I would like to extend a very warm welcome to you.

For the first time in history, the IFIP TC6 Networking conference is coming to Germany. And we are very proud that Aachen (RWTH Aachen University, to be precise) has been chosen to host the event.

Aachen is the westernmost major city in Germany, located on the borders with The Netherlands and Belgium. The place is also known as, for instance, Aix-la-Chapelle, Aken, Aquisgrán, Aquisgrana, Cachy, – a first indication of its very cosmopolitan atmosphere. Despite its 'borderline' location, Aachen is situated in the very centre of Western Europe. And more than 1200 years ago, it was the capital of Charlemagne's empire that comprised Germany, the Benelux countries, France, Switzerland, and a large part of Italy.

One could speculate that Aachen's interesting location, and, of course, its history somewhat contributed to the 232 submissions from 47 countries from all continents (except for Antarctica). Only 48 submissions survived the review process (i.e., roughly 20%) and were accepted as full papers. Another 28 more manuscripts (i.e., 12%) were selected as work-in-progress papers. This rather low acceptance rate should guarantee timely and high-quality papers. I would once again like to highlight the fact that six out of seven continents are represented in the conference program.

Its location – the SuperC building – is certainly a particular highlight of the conference. Very quickly, SuperC became the third Aachen landmark; the other two being the cathedral (which dates from 800 AD) and the town hall (which was built in the fourteenth century). The futuristic SuperC building was officially opened in December 2008 (i.e., less than 6 months ago), and some parts are still not fully operational. Networking 2009 will be the first major real-life test for the SuperC; we thus better apologize up front for any unexpected problems. Nevertheless, we trust that everything will go very well indeed, and we wish you a productive and enjoyable sojourn in Aachen.

Otto Spaniol
IFIP Networking 2009 General Chair

ORGANISING COMMITTEE

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Zitterbart, Martina, University Karlsruhe, Germany

PROGRAMME AT A GLANCE

Conference Venue: SuperC, Templergraben

Monday, 11 May 2009	
09:00–17:30	TMA'09 Workshop
18:00–20:00	Welcome Reception Networking 2009, Foyer 6th Floor
Tuesday, 12 May 2009	
08:00–08:30	Preparation of One Minute Madness, Generali Room
08:30–09:00	Opening Session, Ford Room
09:00–09:45	Keynote 1: Paul Francis (MaxPlanck Institute for Software, Saarbrücken, DE): A DirtySlate Approach to Scaling BGP
09:45–10:15	One Minute Madness
10:15–11:00	Coffee Break
11:00–12:30	Session 1.1 Ad hoc Networks Session 1.2 Modelling
12:30–14:00	Lunch (on your own)
14:00–15:30	Session 1.3 Peer to Peer Session 1.4 Quality of Service
15:30–16:00	Coffee Break
16:00–17:30	Session 1.5 Wireless Networks Session 1.6 Applications and Services
18:00–19:15	Aachener Dom (Cathedral) Guided tour, sponsored by REGINA e.V.
19:30–22:30	Cisco Night (City Hall), next to Aachen Markt

PROGRAMME AT A GLANCE

Conference Venue: SuperC, Templergraben

Wednesday, 13 May 2009		
08:30–09:00	Preparation of One Minute Madness, Generali Room	
09:00–09:45	Keynote 2: Paul Kühn (University of Stuttgart, DE): Development of Global Communications – The Path Towards an All-Embracing Information Infrastructure	
09:45–10:15	One Minute Madness	
10:15–11:00	Coffee Break	
11:00–12:30	Session 2.1 Peer to Peer	Session 2.2 Next Generation Internet
12:30–14:00	Lunch (on your own)	
14:00–15:30	Session 2.3 Wireless Networks	Session 2.4 Next Generation Internet
15:30–16:00	Coffee Break	
16:00–17:30	Session 2.5 Modelling and Performance Analysis	Session 2.6 Applications and Services
18:30–23:00	Dinner, Drehturm Aachen (Due to limited capacity on a FIFO basis with respect to the registration date.)	

PROGRAMME AT A GLANCE

Conference Venue: SuperC, Templergraben

Thursday, 14 May 2009

08:30–09:00	Preparation of One Minute Madness, Generali Room	
09:00–09:45	Keynote 3: Mario Gerla (UCLA (University of California, Los Angeles), US): Vehicular Urban Sensing: Dissemination and Retrieval	
09:45–10:15	One Minute Madness	
10:15–11:00	Coffee Break	
11:00–12:30	Session 3.1 Wireless Networks	Session 3.2 Modelling and Performance Evaluation
12:30–14:00	Lunch (on your own)	
14:00–15:30	Session 3.3 Peer to Peer	Session 3.4 All-IP Networking
15:30–16:00	Coffee Break	
16:00–17:30	Session 3.5 Next Generation Internet	Session 3.6 Performance and Wireless
17:30–18:00	Closing Session (Best Paper Award, Hand over to Chennai,...)	

Friday, 15 May 2009

09:00–17:15	ICQT'09 Workshop
08:30–17:45	MWNS'09 Workshop

KEYNOTE SPEAKER NETWORKING 2009

Paul Francis, MPI Saarbrücken (formerly Cornell University), DE

Date Tuesday, 12 May, 09:00 – 09:45, Ford Room
Chair: Henning Schulzrinne, Columbia University, USA

Title A Dirty–Slate Approach to Scaling BGP

Abstract It is generally accepted that a „clean slate“ redesign of the Internet is needed to solve problems like routing scalability. Given that such designs are unlikely to ever be deployed, we believe it is equally important to find solutions that are economically attractive. In this talk, we describe Virtual Aggregation, a technique that allows us to shrink hardware routing tables by at least an order–of–magnitude, that requires no changes to routing protocols or even to router software, and that can be deployed autonomously by individual ISPs. The economic motivation behind Virtual Aggregation is that it allows ISPs to extend the lifetime of their existing router base by years. We describe how Virtual Aggregation works, show performance estimates based on a measurement study done on a large Tier–1 ISP, and describe how this work has led to IETF proposals.

Biography Paul Francis is a tenured faculty at the Max Planck Institute for Software Systems in Germany. Paul has held research positions at Cornell University, ACIRI, NTT Software Labs, Bellcore, and MITRE, and was Chief Scientist at two Silicon Valley startups. Paul's research centers around routing and addressing problems in the Internet and P2P networks. Paul's innovations include NAT, shared–tree multicast, the first P2P multicast system, the first DHT (as part of landmark routing), and Virtual Aggregation.

KEYNOTE SPEAKER NETWORKING 2009

Paul Kühn, University of Stuttgart, DE

Date Wednesday, 13 May, 09:00 – 09:45, Ford Room
Chair: Rudolf Mathar, RWTH Aachen University, DE

Title Development of Global Communications –
The Path Towards an All–Embracing Information Infrastructure

Abstract Microelectronic choices, optical and wireless communications and powerful software control functions have shown a dramatic improvement and an unparalleled development which allows nowadays that literally all human beings could be interconnected and, beyond that, all objects of our environment could be included forming a huge global system for information and communication. The question arises how such complex systems will develop in the future and how such systems can be controlled. The keynote addresses the main arising factors of this development as which technical challenges we are going to be faced with, which new solutions will be visible and which threats and risks are coming up with these developments. In the presentation, some specific problems will be addressed which are typical for this development as distributed control and self–organization, mobility, privacy and controllability, directing to a major paradigm shift.

Biography Paul Kühn received the Diploma and Dr.–Ing. degrees from the University of Stuttgart in 1967 and 1972, respectively. He guided a research team on performance modelling of communication and computer networks. After an industrial experience at AT & T Bell Laboratories on data network development, he became a professor for communications and computer engineering at the University of Siegen (1978–1982) and the University of Stuttgart where he has been heading the Institute of Communication Networks and Computer Engineering since then. He and his team have contributed to the development of new architectures and protocols for high–speed and mobile networks, optical networks, signalling control, performance modelling and simulation, security and privacy through research fundings by the German Research Council DFG, the Federal Ministry of Research and Technology, the European Union and industrial cooperations.

KEYNOTE SPEAKER NETWORKING 2009

Mario Gerla, University of California, Los Angeles (UCLA), USA

Date Thursday, 14 May, 09:00 – 09:45, Ford Room
Chair: Christoph Lindemann, University of Leipzig, DE

Title Vehicular Urban Sensing: Dissemination and Retrieval

Abstract There has been growing interest in vehicle to vehicle communications for a broad range of applications ranging from safe driving to content distribution, advertising, commerce and games. One emerging application is urban sensing. Vehicles monitor the environment, classify the events, e.g., license plates, pollution readings, etc. and exchange metadata with neighbors in a peer-to-peer fashion, creating a distributed index from which mobile users can extract different views. For instance, the Department of Transportation captures traffic statistics; the Department of Health monitors pollutants, and; Law Enforcement Agents investigate crimes. Mobile, vehicular sensing differs significantly from conventional wireless sensing. Vehicles have no strict limits on battery life, processing power and storage capabilities. Moreover they can generate enormous volumes of data, making conventional sensor data collection inadequate. In this talk we first review popular V2V applications and then introduce MobEyes, a middleware solution that diffuses data summaries to create a distributed index of the sensed data. We discuss the challenges of designing and maintain such a system, from information dissemination to harvesting, routing and privacy.

Biography Dr. Gerla received his Engineering degree from the Politecnico di Milano, Italy, in 1966 and the M.S. and Ph.D. degrees from UCLA in 1970 and 1973. He became IEEE Fellow in 2002. At UCLA, he was part of a small team that developed the early ARPANET protocols under the guidance of Prof. Leonard Kleinrock. He worked at Network Analysis Corporation, New York, from 1973 to 1976, transferring the ARPANET technology to several Government and Commercial Networks. He joined the Faculty of the Computer Science Department at UCLA in 1976, where he is now Professor. At UCLA he has designed and implemented some of the most popular and cited network protocols for ad hoc wireless networks including distributed clustering, multicast (ODMRP and CODECast) and transport (TCP Westwood) under DARPA and NSF grants.

KEYNOTE SPEAKER WORKSHOPS

TMA'09 Workshop

Michel Mandjes, University of Amsterdam, NL

- Date** Monday, 11 May, 09:05 – 10:00
- Title** Traffic models, and their use in provisioning and traffic management
- Abstract** Traffic models play a key role in design and control of communication networks. In this talk I will sketch the most important classes of traffic models, and present a number of examples that indicate how these models can be used in link dimensioning and traffic management.
- Biography** Michel Mandjes received the M.Sc. (in both mathematics and econometrics) and Ph.D. degrees from the Vrije Universiteit (VU), Amsterdam, the Netherlands. After having worked as a member of technical staff at KPN Research (Leidschendam, the Netherlands) and Bell Laboratories/Lucent Technologies (Murray Hill NJ, USA), as a part-time full professor at the University of Twente, and as department head at CWI, Amsterdam, he currently holds a full professorship at the University of Amsterdam, the Netherlands. He was guest professor at Stanford University in 2008.

ICQT'09 Workshop

Jim Roberts, France Telecom, FR

- Date** Friday, 15 May, 09:15 – 10:00
- Title** QoS is still an issue, congestion pricing is not the solution
- Abstract** A network clearly needs to be designed to meet user performance requirements for a wide variety of applications. In a commercial setting, return on investment must be covered by the price users pay for the services provided by the network. It matters whether the investment is just in an amount of commodity infrastructure or also in complex value-added services justifying a higher profit margin. QoS is often seen as the basis for such added value. We discuss the issue of RoI and consider the complementary role of pricing as a QoS mechanism.
- Biography** Jim Roberts has a BSc in mathematics from the University of Surrey, UK and a PhD from the University of Paris. He has been with the France Telecom research labs since 1978 where he has performed research on the performance evaluation and design of traffic controls for multiservice networks including ISDN, ATM and the Internet.

KEYNOTE SPEAKER WORKSHOPS

MWNS'09 Workshop

Hannes Tschofenig

- Date** Friday, 15 May, 08:45 – 10:00
- Title** Mobility and Security: The Tussles Continue
- Biography** Hannes Tschofenig is an active fellow at the IETF. He is Senior Standardization Specialist at Nokia Siemens Networks in Finland.

Christoph Sorge

- Date** Friday, 15 May, 10:15–11:30
- Title** Privacy and Data Protection in the Internet of Things
- Biography** Christoph Sorge received his diploma degree (master equivalent) in Information Engineering and Management from Universität Karlsruhe (TH) in 2004. He then received a scholarship as a member of the interdisciplinary Graduate School on Information Management and Market Engineering at the same university. He also worked as a researcher at the Institute of Telematics and contributed to the institute's teaching activities. Christoph finished his thesis dealing with legal and technical aspects of self-organizing, distributed recommender systems, and received his doctoral degree in 2007. He joined NEC Laboratories Europe in January, 2008.

Hans-Joachim Hof

- Date** Friday, 15 May, 13:30 – 14:45
- Title** Secure Wireless Sensor Networks for Industrial Use
- Biography** Hans-Joachim Hof is a research scientist at Siemens AG, Corporate Technology in Munich, Germany. His research interests include sensor networks, future internet, and network security. Hans-Joachim received his doctoral degree from University of Karlsruhe in 2007. From 2003 to 2007, he was a research assistant at University of Karlsruhe, Institute of Telematics. In 2002, Hans-Joachim graduated at University of Karlsruhe in computer science (Dipl.-Inform., M.Sc. equivalent). During his studies, Hans-Joachim worked for SAP in Palo Alto, USA.

TECHNICAL SESSIONS - Tuesday, 12 May 2009

Tuesday
11:00–12:30
Ford Room

Session 1.1: Ad hoc Networks

Session Chair: Neuman Souza, Federal University of Ceara, BR

Calibrating Wireless Sensor Network Simulation Models with Real-World Experiments

Philipp Hurni, Torsten Braun (University of Bern, CH)

Experimental Study: Link Quality and Deployment Issues in Wireless Sensor Networks

Monique Becker (Telecom SudParis, FR), André-Luc Beylot, Riadh Dhaou (University of Toulouse, FR), Ashish Gupta (Telecom SudParis, FR), Rahim Kacimi (University of Toulouse, FR), Michel Marot (Telecom SudParis, FR)

Aggregation Protocols for High Rate, Low Delay Data Collection in Sensor Networks

Jie Feng, Derek Eager, Dwight Makaroff (University of Saskatchewan, CA)

WIP: Event Based Fairness for Video Surveillance Sensor Networks

Yunus Durmus, Atay Oztgovde, Cem Ersoy (Bogazici University, TR)

Tuesday
11:00–12:30
Generali Room

Session 1.2: Modelling

Session Chair: Kiril Boyanov, Bulgarian Academy of Science, BG

Humpty Dumpty: Putting iBGP Back Together Again

Ashley Flavel, Jeremy McMahon (University of Adelaide, AU), Aman Shaikh (AT&T Labs – Research, US), Matthew Roughan, Nigel Bean (University of Adelaide, AU)

Performance Evaluation of Weighted Fair Queuing System Using Matrix Geometric Method

Amina Al-Sawaai, Irfan Awan (University of Bradford, UK)

Counting Flows over Sliding Windows in High Speed Networks

Josep Sanjuàs-Cuxart, Pere Barlet-Ros, Josep Solé-Pareta (Technical University of Catalonia, ES)

WIP: Heterogeneous Protection in Regular and Complete Bi-partite Networks

Jasmina Omic (Delft University of Technology, NL), Robert Kooij (TNO ICT, NL), Piet Van Mieghem (Delft University of Technology, NL)

TECHNICAL SESSIONS - Tuesday, 12 May 2009

Session 1.3: Peer to Peer

Session Chair: James Gross, RWTH Aachen University, DE

Tuesday
14:00–15:30
Ford Room

Conducting and Optimizing Eclipse Attacks in the Kad Peer-to-Peer Network

Michael Kohnen, Mike Leske, Erwin Rathgeb (University of Duisburg–Essen, DE)

On the Optimal Scheduling of Streaming Applications in Unstructured Meshes

Luca Abeni, Csaba Kiraly, Renato Lo Cigno (University of Trento, IT)

Identify P2P Traffic by Inspecting Data Transfer Behaviour

Ye MingJiang, Jianping Wu, Ke Xu (Tsinghua University, CN), Dah Ming Chiu (The Chinese University of Hong Kong, HK)

WIP: Where is my peer?

Moritz Steiner, Ernst Biersack (Institut EURECOM, FR)

Session 1.4: Quality of Service

Session Chair: Xiaoming Fu, Georg–August–University of Göttingen, DE

Tuesday
14:00–15:30
Generali Room

IP Fast ReRoute: Lightweight Not–Via

Gábor Enyedi, Gábor Rétvári, Péter Szilágyi (Budapest University of Technology and Economics, HU), András Császár (Ericsson Research, HU)

QoS Support for Mobile Users using NSIS

Roland Bless, Martin Röhrich (University of Karlsruhe, DE)

Real Time Identification Of SSH Encoded Application Flows by Using Cluster Analysis Techniques

Gianluca Maiolini, Andrea Baiocchi, Antonello Rizzi, Alfonso Iacovazzi (University of Roma „La Sapienza“, IT)

WIP: Evaluation of a multiobjective alternative routing method in carrier IP/MPLS networks

Lúcia Martins (University of Coimbra, PT), João Redol (Nokia Siemens Networks, PT), José Craveirinha, Catarina Francisco, João Clímaco (University of Coimbra, PT), Paulo Monteiro (Nokia Siemens Networks Portugal, PT)

TECHNICAL SESSIONS - Tuesday, 12 May 2009

Tuesday
16:00–17:30
Ford Room

Session 1.5: Wireless Networks

Session Chair: Yutaka Takahashi, Kyoto University, JP

Dimensioning and Location Planning for Wireless Networks under Multi-level Cooperative Relaying

Bin Lin, Pin-Han Ho (University of Waterloo, CA)

Multi-User OFDMA Frame Aggregation for Future Wireless Local Area Networking

James Gross, Oscar Punal (RWTH Aachen University, DE), Marc Emmelmann (Technical University of Berlin, DE)

WIFE: Wireless Indoor positioning based on Fingerprint Evaluation

Apostolia Papapostolou (Tel. SudParis, FR), Hakima Chaouchi (INT, FR)

WIP: Performance Analysis of Packet Aggregation in WLANs with Simultaneous Multi-User Access

Andreas Könsgen, Md. Shahidul Islam, Andreas Timm-Giel, Carmelita Goerg (University of Bremen, DE)

Tuesday
16:00–17:30
Generali Room

Session 1.6: Applications and Services

Session Chair: Andreas Fasbender, Ericsson, DE

Revisiting the Performance of Short TCP Transfers

Guillaume Urvoy-Keller (Institut Eurecom, FR), Denis Collange (Orange Labs, FR), Aymen Hafsaoui (Institut Eurecom, FR)

Why are Peers Less Stable in Unpopular P2P Streaming Channels?

Zimu Liu (University of Toronto, CA), Chuan Wu (The University of Hong Kong, HK), Baochun Li (University of Toronto, CA), Shuqiao Zhao (UUSec Inc., CN)

Enhancing Application Identification By Means Of Sequential Testing

Mohamad Jaber (INRIA Sophia Antipolis Projet PLANET, FR), Chadi Barakat (INRIA Sophia Antipolis, FR)

WIP: The Illusion of Being Deterministic: Application-level Considerations on Delay in 3G HSPA Networks

Joachim Fabini (Vienna University of Technology, AT), Wolfgang Karner (mobilkom austria AG, AT), Lukas Wallentin (Vienna University of Technology, AT), Thomas Baumgartner (mobilkom austria AG, AT)

TECHNICAL SESSIONS - Wednesday, 13 May 2009

Session 2.1: Peer to Peer

Session Chair: Bin Lin, University of Waterloo, CA

Wednesday
11:00–12:30
Ford Room

Phoenix: Towards an Accurate, Practical and Decentralized Network Coordinate System

Yang Chen, Xiao Wang, Xiaoxiao Song (Tsinghua University, CN), Eng Keong Lua (Carnegie Mellon University, US), Cong Shi (Georgia Institute of Technology, US), Xiaohan Zhao, Beixing Deng, Xing Li (Tsinghua University, CN)

Topology Dynamics in a P2PTV Network

Siyu Tang, Yue Lu, Javier Martin–Hernandez, Fernando Kuipers, Piet Van Mieghem (Delft University of Technology, NL)

Collaboration in BitTorrent Systems

Rafit Izhak–Ratzin (University of California at Los Angeles (UCLA), US)

WIP: Detecting Triangle Inequality Violations in Internet Coordinate Systems by Supervised Learning

Yongjun Liao (University of Liège, BE), Mohamed Ali Kaafar (INRIA Rhône–Alpes, FR), Bamba Gueye, François Cantin, Pierre Geurts, Guy Leduc (University of Liège, BE)

Session 2.2: Next Generation Internet

Session Chair: Wolfgang Effelsberg, University of Mannheim, DE

Wednesday
11:00–12:30
Generali Room

Analysis of the effects of XLFrames in a network

Dinil Mon Divakaran (ENS Lyon, INRIA, FR), Eitan Altman (INRIA, FR), Georg Post, Ludovic Noirie (Alcatel–Lucent France, FR), Pascale Vicat–Blanc Primet (INRIA, FR)

Complementing TCP Congestion Control with Forward Error Correction

Vicky Sharma (Rensselaer Polytechnic Institute, US), K. K. Ramakrishnan (AT&T Labs. Research, US), Shivkumar Kalyanaraman (IBM India Research Laboratory, Koushik Kar (Rensselaer Polytechnic Institute, US)

Collateral Damage: The Impact of Optimised TCP Variants On Real–time Traffic Latency in Consumer Broadband Environments

Lawrence Stewart, Grenville Armitage, Alana Huebner (Swinburne University of Technology, AU)

WIP: Why Rely on Blind AIMDs?

Ioannis Psaras, Rahim Tafazolli, Mehrdad Dianati (University of Surrey, UK)

TECHNICAL SESSIONS - Wednesday, 13 May 2009

Wednesday
14:00–15:30
Ford Room

Session 2.3: Wireless Networks

Session Chair: Peter Baumung, University of Karlsruhe, DE

SBA: A Simple Backoff Algorithm for Wireless Ad Hoc Networks

Tahiry Razafindralambo (CNRS / INRIA / Univ-Lille 1, FR), Isabelle Guerin-Lassous (Université de Lyon – LIP, FR)

Hashing Backoff: a Collision-Free Wireless Access Method

Paul Starzetz (LSR, FR), Martin Heusse, Franck Rousseau, Andrzej Duda (Grenoble Informatics Laboratory, FR)

Optimal Placement of Multiple Interconnected Gateways in Heterogeneous Wireless Sensor Networks

Antonio Capone, Matteo Cesana, Danilo De Donno, Ilario Filippini (Politecnico di Milano, IT)

WIP: Extended Cooperative Balanced Space-Time Block Coding for Increased Efficiency in Wireless Sensor Networks

Ali Eksim, Mehmet E. Celebi (Istanbul Technical University, TR)

Wednesday
14:00–15:30
Generali Room

Session 2.4: Next Generation Internet

Session Chair: Ioannis Psaras, University of Surrey, UK

Congestion and Flow Control in the Context of the Message-oriented Protocol SCTP

Irene Rüngeler, Michael Tüxen (Münster University of Applied Sciences, DE), Erwin Rathgeb (University of Duisburg-Essen, DE)

Compound TCP with Random Losses

Alberto Blanc (Orange Labs, FR), Konstantin Avrachenkov (INRIA Sophia Antipolis, FR), Denis Collange (Orange Labs, FR), Giovanni Neglia (INRIA Sophia Antipolis, FR)

Preventing the unnecessary propagation of BGP withdraws

Virginie Van den Schriek, Pierre Francois (Université Catholique de Louvain, BE), Cristel Pelsser (NTT, JP), Olivier Bonaventure (Université Catholique de Louvain, BE)

WIP: Backup Path Classification based on Failure Risks for Efficient Backup Path Computation

Mohand Saidi, Bernard Cousin (University of Rennes I, FR), Jean-Louis Le Roux (France Telecom R&D, FR)

TECHNICAL SESSIONS - Wednesday, 13 May 2009

Session 2.5: Modelling and Performance Analysis

Session Chair: Udo Krieger, Otto–Friedrich–Universität Bamberg, DE

**Wednesday
16:00–17:30
Ford Room**

An Efficient Analytical Model for the Dimensioning of WiMAX Networks

Bruno Baynat, Georges Nogueira (Université Pierre et Marie Curie–LIP6, FR),
Masood Maqbool, Marceau Coupechoux (TELECOM ParisTech, FR)

Performance Evaluation of Gradient Routing Strategies for Wireless Sensor Networks

Fadila Khadar (INRIA Lille–Nord Europe, FR), Tahiry Razafindralambo (CNRS/
INRIA/Univ–Lille 1, FR)

Online Estimation of Available Bandwidth and Fair Share using Kalman Filtering

Zdravko Bozakov, Michael Bredel (TU Darmstadt, DE)

WIP: A new metric for robustness with respect to virus spread

Robert Kooij (TNO ICT, NL), Phillip Schumm, Caterina Scoglio (Kansas State
University, US)

Session 2.6: Applications and Services

Session Chair: Peter Reichl,
Forschungszentrum Telekommunikation Wien (ftw), AT

**Wednesday
16:00–17:30
Generali Room**

Practical Random Linear Network Coding on GPUs

Xiaowen Chu, Kaiyong Zhao (Hong Kong Baptist University, HK), Mea Wang
(University of Calgary, CA)

Peer–assisted On–demand Video Streaming with Selfish Peers

Niklas Carlsson (University of Calgary, CA), Derek Eager (University of
Saskatchewan, CA), Anirban Mahanti (Indian Institute of Technology, Delhi, IN)

Video Broadcasting to Heterogeneous Mobile Devices

Cheng–Hsin Hsu, Mohamed Hefeeda (Simon Fraser University, CA)

WIP: Scan Surveillance in Internet Networks

Khadija Ramah Huerbi (Laboratoire Cristal, TN), Kave Salamatian
(Lancaster University, UK), Farouk Kamoun (University of Manouba, TN)

TECHNICAL SESSIONS - Thursday, 14 May 2009

Thursday
11:00–12:30
Ford Room

Session 3.1: Wireless Networks

Session Chair: Guy Leduc, University of Liège, BE

Optimizing the Association Procedure for Low–Power 802.15.4 Nonbeacon Sensor Networks

Barbara Staehle (University of Würzburg, DE)

Impact of Misbehaviour on QoS in Wireless Mesh Networks

Szymon Szott, Marek Natkaniec (AGH University of Science and Technology, PL), Albert Banchs (Universidad Carlos III de Madrid, ES)

An uplink bandwidth management framework for IEEE 802.16 with QoS guarantees

Mohamad El Masri, Slim Abdellatif, Guy Juanole (Université de Toulouse, FR)

WIP: A Coalitional Game Model for Heat Diffusion Based Incentive Routing and Forwarding Scheme

Xiaoqi Li, Wujie Zheng, Michael Lyu (The Chinese University of Hong Kong, HK)

Thursday
11:00–12:30
Generali Room

Session 3.2: Modelling and Performance Evaluation

Session Chair: Ramon Puigjaner, Univ. de les Illes Balears (UIB), ES

Performance Analysis of Centralized versus Distributed Recovery Schemes in P2P Storage Systems

Abdulhalim Dandoush, Sara Alouf, Philippe Nain (INRIA, Sophia Antipolis, FR)

Analyzing Network Coverage in Unstructured Peer–to–Peer Networks: A Complex Network Approach

Joydeep Chandra, Santosh Shaw, Niloy Ganguly (Indian Institute of Technology Kharagpur, IN)

Decentralized Bootstrapping of P2P Systems: A Practical View

Jochen Dinger, Oliver Waldhorst (Universität Karlsruhe (TH), DE)

WIP: Performance Evaluation of Fast Startup Congestion Control Schemes

Michael Scharf (University of Stuttgart, DE)

TECHNICAL SESSIONS - Thursday, 14 May 2009

Session 3.3: Peer to Peer

Session Chair: Günter Schäfer, TU Ilmenau, DE

**Thursday
14:00–15:30
Ford Room**

A Unified Framework for Sub-stream Scheduling in P2P Hybrid Streaming Systems and How to Do Better?

Zhenjiang Li (Hong Kong University of Science and Technology, HK), Yao Yu (Nanjing University, CN), Xiaojun Hei (Huazhong University of Science and Technology, CN), Danny H. K. Tsang (Hong Kong University of Science and Technology, HK)

A Novel Content Distribution Mechanism in DHT Networks

Quanqing Xu (Peking University, CN), Heng Tao Shen (University of Queensland, AU), Bin Cui, Yafei Dai (Peking University, CN)

CHAP: Enabling Efficient Hardware-based Multiple Hash Schemes for IP Lookup

Michel Hanna, Socrates Demetriades, Sangyeun Cho, Rami Melhem (University of Pittsburgh, US)

WIP: PUB-2-SUB: A Content-Based Publish/Subscribe Framework for Cooperative P2P Networks

Duc Tran, Cuong Pham (UMass Boston, US)

Session 3.4: All-IP Networking

Session Chair: Lorne Mason, McGill University, CA

**Thursday
14:00–15:30
Generali Room**

Minimum-Delay Load-Balancing Through Non-Parametric Regression

Federico Larroca, Jean-Louis Rougier (TELECOM ParisTech, FR)

A Power Benchmarking Framework for Network Devices

Priya Mahadevan, Puneet Sharma, Sujata Banerjee, Partha Ranganathan (Hewlett Packard Labs, US)

MPLS label stacking on the line network

Jean-Claude Bermond, David Coudert, Joanna Moulhierac, Stephane Perennes, Hervé Rivano, Ignasi Sau (INRIA, Sophia-Antipolis, FR), Fernando Solano Donado (Warsaw University of Technology, PL)

Modelling and Performance Evaluation of Improved Access Mechanisms in a Novel Multiservice OPS Architecture

Thaere Eido (TELECOM SudParis, FR), Ferhan Pekergin (Université Paris 13, FR), Tulin Atmaca (TELECOM SudParis, FR)

TECHNICAL SESSIONS - Thursday, 14 May 2009

Thursday
16:00–17:30
Ford Room

Session 3.5: Next Generation Internet

Session Chair: Serugudi Raghavan, IIT Madras, IN

WIP: On the Impact of Clustering on Measurement Reduction

Damien Saucez, Benoit Donnet, Olivier Bonaventure (Université Catholique de Louvain, BE)

WIP: Topology Design for Service Overlay Networks with economic and QoS constraints

Davide Adami, Christian Callegari, Stefano Giordano, Michele Pagano, Teresa Pepe (University of Pisa, IT)

WIP: Bandwidth optimization for multicast transmissions in virtual circuit networks

Vincent Reinhard, Joanna Tomasik (Supélec, FR), Dominique Barth (University of Versailles–St Quentin, FR), Marc–Antoine Weisser (Supélec, FR)

WIP: Harmony: Advance Reservations in Heterogeneous Multi–domain Environments

Alexander Willner, Christoph Barz (University of Bonn, DE), Joan Garcia Espin, Jordi Ferrer Riera, Sergi Figuerola (Fundació i2CAT, Internet i Innovació Digital a Catalunya, ES)

WIP: Creating Butterflies in the Core A Network Coding Extension for MPLS/RSVP–TE

Thorsten Biermann, Arne Schwabe, Holger Karl (University of Paderborn, DE)

WIP: Why is this Web Page coming up so slow? Investigating the Loss of SYN Packets

Dragana Damjanovic, Philipp Gschwandtner, Michael Welzl (University of Innsbruck, AT)

TECHNICAL SESSIONS - Thursday, 14 May 2009

Session 3.6 Performance and Wireless

Session Chair: Georg Carle, TU München, DE

Thursday
16:00–17:30
Generali Room

WIP: Gravity-based Local Clock Synchronization in Wireless Sensor Networks

Markus Waelchli, Reto Zurbuchen, Thomas Staub, Torsten Braun (University of Bern, CH)

WIP: Two ID-free Distributed Distance-2 Edge Coloring Algorithms for WSNs

André Pinho (Alberto Luiz Coimbra Institute Graduate School and Research in Engineering, BR), Alexandre Santos, Daniel Figueiredo, Felipe França (Universidade Federal do Rio de Janeiro, BR)

WIP: A Performance Model for Maintenance Tasks in an Environment of Virtualized Servers

Tien Van Do (Budapest University of Technology and Economics, HU), Udo R. Krieger (Otto-Friedrich University Bamberg, DE)

WIP: Towards Automated Secure Web Service Execution

Bela Genge, Piroska Haller (Petru Maior University of Targu Mures, RO)

WIP: Performance Study of a Video Application over Multi Hop Wireless Networks with Statistic-based Routing

Alexander Klein (University of Würzburg, DE), Jirka Klaue (EADS Innovation Works, DE)

WORKSHOPS - Monday, 11 May 2009

1st International Workshop on Traffic Monitoring and Analysis (TMA'09)

SuperC, 6th floor,
Ford Room

09:00 – 09:05 Opening Address

09:05 – 10:00 Keynote Talk:
Traffic models, and their use in provisioning and traffic management
Michel Mandjes (University of Amsterdam, NL)

10:00 – 10:30 Coffee Break

10:30 – 11:30 Session 1: QoS Measurement

Realistic Passive Packet Loss Measurement for High-Speed Networks

Ales Friedl, Sven Ubik, Alexandros Kapravelos, Michalis Polychronakis, Evangelos P. Markatos

Inferring Queue State by Measuring Delay in a WiFi Network

David Malone, Douglas J. Leith, Ian Dangerfield

Network-Wide Measurements of TCP RTT in 3G

Peter Romirer, Fabio Ricciato, Robert Franzan, Alessandro Dalconzo

11:30–12:30 Session 2: Rupture Detection

Portscan Detection with Sampled NetFlow

Ignasi Paredes-Oliva, Pere Barlet-Ros, Josep Solé-Pareta

Automated Detection of Changes in Large-Scale Networks

Felipe Mata, Javier Aracil, Jose Luis Garcia-Dorado

Passive Streaming Inference of TCP Connection Structure for Network Server Management

Jeff Terrell, Kevin Jeffay, F. Donelson Smith

WORKSHOPS - Monday, 11 May 2009

1st International Workshop on Traffic Monitoring and Analysis (TMA'09)

SuperC, 6th floor,
Ford Room

12:30 – 14:00 Lunch Break

14:00 – 15:40 Session 3: Traffic Classification

GTVS: Boosting the Collection of Application Traffic Ground Truth

Marco Canini, Wei Li, Andrew Moore

TIE: A Community–Oriented Traffic Classification Platform

Alberto Dainotti, Antonio Pescape

Revealing the Unknown ADSL Traffic Using Statistical Methods

Marcin Pietrzyk, Guillaume Urvoy–Keller, Jean–Laurent Costeux

Accurate Fine–Grained Classification of P2P–TV Applications by Simply Counting Packets

Silvio Valenti, Dario Rossi, Michela Meo, Marco Mellia, Paola Bermolen

Detection and Tracking of Skype in a Live 3G Network Exploiting Cross Layer Information

Philipp Svoboda, Esa Hyttiä, Fabio Ricciato, Markus Rupp

15:40–16:10 Coffee Break

16:10–17:30 Session 4: Traffic Analysis & Topology Measurements

Incentives for BGP Guided IP–Level Topology Discovery

Benoit Donnet

Scaling Analysis of Wavelet Quantiles in Network Traffic

Giada Giorgi, Claudio Narduzzi

KISS: Stochastic Packet Inspection

Alessandro Finamore, Marco Mellia, Michela Meo, Dario Rossi

DTS: A Decentralized Tracing System

Kenji Masui, Benoit Donnet

17:30 Conclusion

WORKSHOPS - Friday, 15 May 2009

6th International Workshop on Internet Charging and QoS Technologies (ICQT'09)

SuperC, 5th floor,
Room 5.31/5.32

09:00 – 09:15 Welcome and intro

09:15 – 10:00 Session 1: Keynote

QoS is still an issue, congestion pricing is not the solution

Jim Roberts (France Telecom)

10:00 – 10:30 Coffee Break

10:30 – 12:00 Session 2: Competition Models

Optimization of Transmission Power in Competitive Wireless Networks

Patrick Maillé, Bruno Tuffin

On Competition for Market Share in a Dynamic ISP Market with Customer Loyalty: A Game-Theoretic Analysis

László Gyarmati, Tuan Trinh Anh

A Pricing model for a Mobile Network Operator sharing limited resource with a Mobile Virtual Network Operator

Hélène Le Cadre, Bruno Tuffin, Mustapha Bouhtou

12:00–13:30 Lunch Break

WORKSHOPS - Friday, 15 May 2009

6th International Workshop on Internet Charging and QoS Technologies (ICQT'09)

SuperC, 5th floor,
Room 5.31/5.32

13:30–15:00

Session 3: Pricing Mechanisms

Design and Evaluation of a Combinatorial Double Auction for Resource Allocations in Grids

Li Li, Yuanan Liu, David Hausheer, Burkhard Stiller

A User-Influenced Pricing Mechanism for Internet Access

Gergely Biczok, Tuan Trinh Anh

Price Setting in Two-sided Markets for Internet Connectivity

Thorsten Hau, Walter Brenner

15:00–15:30

Coffee Break

15:30–17:00

Session 4: Economics of Interdomain Traffic

Online Charging for IMS-based Inter-Domain Composite Services

Minh Le, Frens Jan Rumph, George Huitema, Bert-Jan van Beijnum, Bart Nieuwenhuis

A New Bilateral Arrangement between Interconnected Providers

Ruzana Davoyan

Improvement of BitTorrent Performance and Inter-Domain Traffic by Insertion of ISP-owned Peers

Ioanna Papafili, Sergios Soursos, George Stamoulis

17:00–17:15

Wrap-up and conclusions

WORKSHOPS - Friday, 15 May 2009

2nd International Workshop on Mobile and Wireless Networks Security (MWNS'09)

SuperC, 4th floor,
Room 4.28

08:30 – 08:45 Welcome

08:45 – 10:00 Keynote 1

Mobility and Security: The Tussles Continue

Hannes Tschofenig (Nokia Siemens Networks)

10:00 – 10:15 Coffee Break

10:15 – 11:30 Keynote 2

Privacy and Data Protection in the Internet of Things

Christoph Sorge (NEC Laboratories Europe)

11:30 – 12:30 Session 1

Protocols for Distributed AAA Framework in Mobile Adhoc Networks

Sondes Larafa, Maryline Maknavicius

Towards A General System for Secure Device Pairing by Demonstration of Physical Proximity

Arfat Malkani, Dan Chalmers, Ian Wakeman,
Lachhman Das Dhomeja

12:30 – 13:30 Lunch Break

WORKSHOPS - Friday, 15 May 2009

2nd International Workshop on Mobile and Wireless Networks Security (MWNS'09)

SuperC, 4th floor,
Room 4.28

13:30 – 14:45 Keynote 3

Secure Wireless Sensor Networks for Industrial Use

Hans-Joachim Hof (Siemens AG)

14:45 – 15:45 Session 2

On AAA Framework in Opportunistic AdHoc Networks: OLSR usecase

Willy Jimerez, Hakima Chaouchi

Handling Security Vulnerabilities in Clustered Wireless Mesh Networks

Sadeq Ali Makram, Fahad Samad

15:45 – 16:00 Coffee Break

16:00 – 17:30 Session 3

Providing Identity Assured User Generated Services Using IMS

Seppo Heikkinen

Secure communications between multicapacity devices with authentication support by network operators

Jean-Philippe Wary, Maryline Laurent-Maknavicus

Protecting Receiver Privacy in Routing for Wireless Sensor Networks

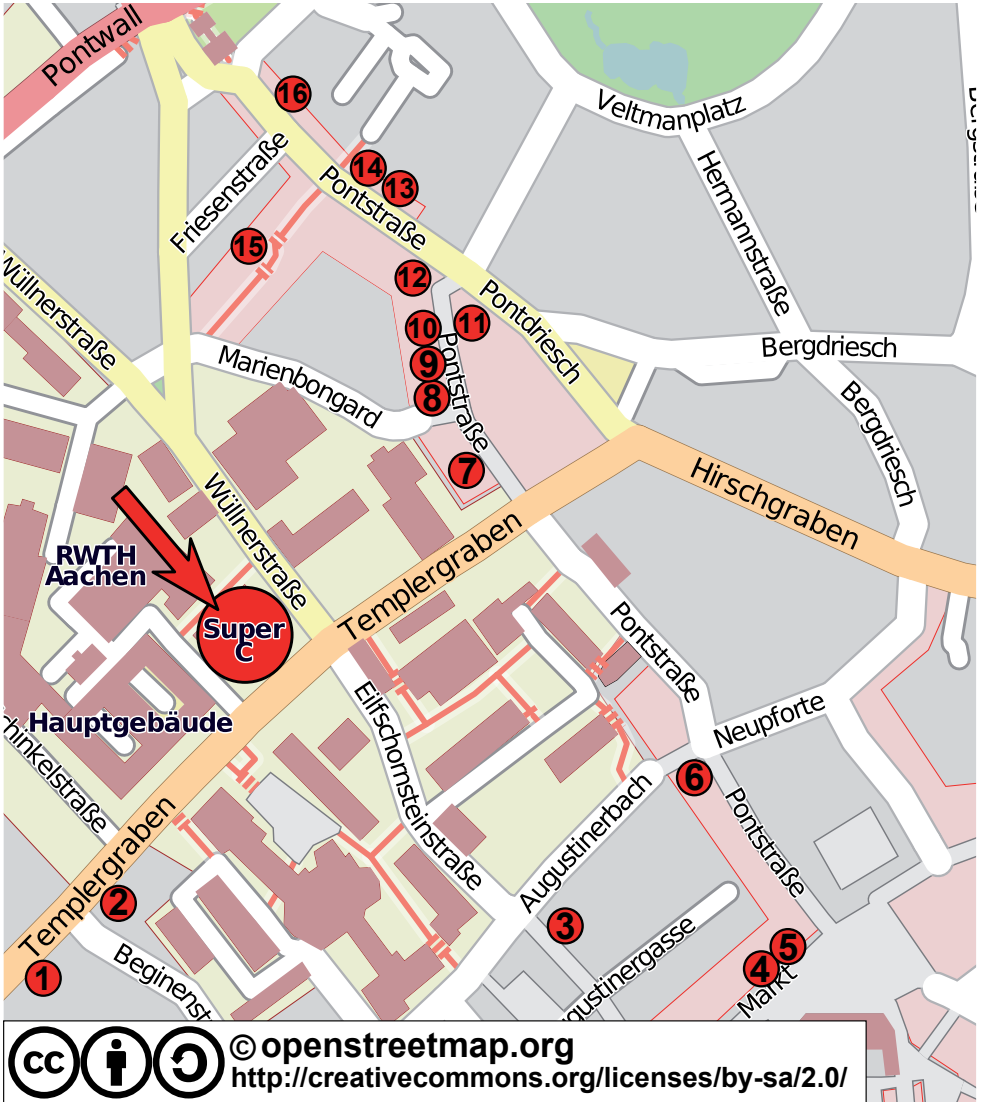
Edith C.H. Ngai, Brittle K.H. Tsoi

17:30 – 17:45 Wrap-up

RESTAURANTS

No	Name	Address	Style	Distance from SuperC
1	Knossos (from 6pm)	Templergraben 28	Greek	200m
2	Limburger Hof	Templergraben 42	Greek	150m
3	Anvers	Kockerellstraße 20	Mixed	300m
4	Zum goldenen Einhorn	Markt 33	Traditional / German	500m
5	Goldener Schwan	Markt 37	Traditional / German	500m
6	Pizzeria Maranello	Pontstraße 23	Takeaway Pizza	300m
7	Oiishi	Pontstraße 83	Japanese / Sushi	200m
8	Pera	Pontstraße 95	Turkish	250m
9	Frittness	Pontstraße 101–105	Friture	250m
10	Mister Thang	Pontstraße 113	Chinese	300m
11	Chicken Point	Ponstraße 134–136	Turkish / Italian	300m
12	Pizzeria La Finestra	Pontstraße 123	Italian / Pizza	350m
13	Pontgarten	Ponstraße 154	Turkish / Italian	400m
14	Labyrinth	Pontstraße 156–158	Turkish / Italian	400m
15	Tacos	Pontstraße 141–149	Mexican	400m
16	Pallas	Ponstraße 168	Greek	450m

CITY MAP



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