

Wednesday, February 27, 2002

*Monday 25**Tuesday 26**Wednesday 27**Thursday 28*

Time	Track A	Track B	Track C
9.00	Ad Hoc Wireless Networks 1	Capacity of Wireless Networks	Signal Equalization and Channel Estimation
9.15			
9.30			
9.45			
10.00			
10.15			
10.30	Coffee Break		
10.45			
11.00	QoS in Wireless	QoS and Services in Mobile Internet	Modulation and Signal Synchronization
11.15			
11.30			
11.45			
12.00			
12.15			
12.30	Lunch		
12.45			
13.00			
13.15			
13.30			
13.45			
14.00	Energy Efficient Computation	Advanced Wireless Systems and Services	Space-Time Signal Processing for Wireless Systems
14.15			
14.30			
14.45			
15.00			
15.15	Coffee Break		
15.30			
15.45	New MAC Protocol for QoS Guarantees in Wireless Networks	Mobile Agents in Wireless Networks	Channel Coding: from Theory to Practice
16.00			
16.15			
16.30			
16.45			
17.00	Round Table: "Transition from 3G Deployment to 3G+/4G Design"		
17.15			
17.30			
17.45			
18.00			
18.15			
20.00	Conference Banquet		

TRACK A

Ad Hoc Wireless Networks/1

Chair: Bijan Jabbari, George Mason University, Fairfax, Virginia, USA

- *On the Message and Time Complexity of a Distributed Mobility Adaptive Clustering Algorithm in Wireless Ad Hoc Networks*

C. Bettstetter, S. König

Technische Universität München, Germany

- *An On-Demand, Link-State, Multi-Path QoS Routing in a Wireless mobile Ad-Hoc Network*

Y.-S. Chen¹, Y.-C. Tseng², J.-P. Sheu³, P.-H. Kuo³

¹ National Taipei University, Taiwan; ² National Chao-Tung University, Taiwan; ³ National Central University, Taiwan

- *IPv6 Autoconfiguration in Large Scale Mobile Ad-Hoc Networks*

K. Weniger, M. Zitterbart

University of Karlsruhe, Germany

- *A Priority MAC Protocol to Support Real-time Multimedia Traffic in Ad Hoc Networks*

J.-P. Sheu¹, C.-H. Liu¹, S.-L. Wu², Y.-C. Tseng³

¹ National Central University, Taiwan; ² Chang-Gung University, Taiwan; ³ National Chao-Tung University, Taiwan

- *Power Control in Ad-Hoc Networks: Theory, Architecture, Algorithm and Implementation of the COMPOW Protocol*

S. Narayanaswamy, V. Kawadia, R.S. Sreenivas, P.R. Kumar

University of Illinois, Urbana, Illinois, USA

- *Scheduling of Broadcasts in Multihop Wireless Networks*

P.-K. Hung, J.-P. Sheu, C.-S. Hsu

National Central University, Taiwan

QoS in Wireless

Session Organizer: Marco Ajmone Marsan, Politecnico di Torino, Italy

Chair: Marco Ajmone Marsan

- *Design and Deployment of Link-Layer Boosters for Per-flow Improvement of QoS in Wireless Internet Access (Invited Paper)*

C. Hoene, I. Carreras, T. Chen, A. Wolisz

Technical University Berlin, Germany

- *Pricing Strategies for Broadband Radio Access to Network Services with Performance Guarantees (Invited Paper)*

N. Blefari-Melazzi, D. Di Sorte, G. Reali

Università degli Studi di Perugia, Italy

- *Performance Analysis of the IEEE 802.11 MAC Protocol*

C. H. Foh, M. Zukerman

The University of Melbourne, Australia

- *Remarks on per-flow differentiation in IEEE 802.11 (Invited Paper)*

I. Aad, C. Castelluccia

INRIA, France

- *A New Medium Access Control Protocol for TDD Mode Wideband CDMA Wireless Local Area Networks (Invited Paper)*

I. F. Akyildiz, X. Wang

Georgia Institute of Technology, USA

- *End-to-end Adaptive Multimedia over Bluetooth Scatternets (Invited Paper)*

M. Kazantzidis, A. Zanella, M. Gerla

UCLA, CA, USA

Energy Efficient Computation

Session Organizer: Carla Fabiana Chiasserini, Politecnico di Torino, Italy
Chair: Carla Fabiana Chiasserini

- *The long-term average capacity region per unit energy with application to protocols for sensor networks (Invited Paper)*

D. Tuninetti, G. Caire
 Institut Eurécom, France

- *Computationally Simple Battery Management Techniques for Wireless Nodes (Invited Paper)*

M. Adamou, S. Sarkar
 University of Pennsylvania, Philadelphia, PA, USA

- *Energy Efficiency of Ad Hoc Wireless Networks with Selfish Users (Invited Paper)*

V. Srinivasan⁺, P.n Nuggehalli⁺, C. F. Chiasserini^{*}, R. R. Rao⁺
⁺University of California, La Jolla, CA, USA; ^{*}Politecnico di Torino, Italy

- *A trace-based approach for determining the energy consumption of a WLAN network interface*

J.-P. Ebert, B. Burns, A. Wolisz
 Technical University Berlin, Germany

- *Distributed Power Control for Power-aware Energy-efficient Routing in Ad-Hoc Networks (Invited Paper)*

P. Bergamo, D. Maniezzo, A. Giovanardi, G. Mazzini, M. Zorzi
 Università di Ferrara, Italy

New MAC Protocols for QoS Guarantees in Wireless Networks

Chair: Kenneth L. Stanwood, Ensemble Communication Inc., San Diego, USA

- *Wireless Tree Protocols for QoS Guarantees in Wireless Networks with Bursty Traffic*

C.-H. Yeh
 Queen's University, Ontario, Canada

- *Design Issues of Media Access Control (MAC) Protocol for Multimedia Traffic over DS-CDMA Systems*

L. Wang, A.H. Aghvami, W.G. Chambers
 King's College London, University of London, UK

- *MAC Protocol for Supporting QoS in All-IP HiperLAN2 (Invited Paper)*

C. Politis, R. Tafazolli
 University of Surrey, UK

TRACK B

Capacity of Wireless Network

Chair: Michele Zorzi, University of Ferrara, Italy

- *BRuIT: Bandwidth Reservation under InTerferences Influence*

C. Chaudet, I. Guérin Lassous
 ENS Lyon, France

- *Impact of Interference on the GPRS Multislot Link Level Performance*

J. Gozalvez, J. Dunlop
 University of Strathclyde, Scotland

- *Dynamic Code Assignment in Hybrid MC-CDMA/TDMA System*

C.-L. Yang, J.-F. Chang
 National Taiwan University and National Chi Nan University, Taiwan

- *Capacity Analysis of Multicell CDMA Networks with Fast Power Control under Multipath Fading*

J.M. Romero Jerez, M. Ruiz Garcia, A. Diaz Estrella
 University of Malaga, Spain

- *Enhanced Formulations for Call Capacity Improvement of Distributed DCA Schemes Based on Hopfield Neural Networks*

O. Lazaro, D. Girma
University of Strathclyde, Scotland

- Link Adaptation Techniques for High-Speed Packet Data in Third Generation Cellular Systems

E. Esteves, P.J. Black, M.I. Gurelli
Qualcomm Inc., USA

QoS and Services in Mobile Internet Environment

Session Organizer: Sessaiah Ponnekanti, Fujitsu Laboratories of Europe Ltd, UK

Chair: Sessaiah Ponnekanti

- Enabling Mobile Heterogeneous Networking Environments with End-to-End QoS - The BRAIN vision and the MIND approach (Invited Paper)

A. Kassler¹, T. Guenkova-Luy¹, D. Mandato², P. Schoo³, I. Armuelles⁴, T. Robles⁴, P. Ruiz⁵, A. Bascuñana⁶

¹University of Ulm, Germany; ²Sony International (Europe) GmbH, Germany; ³DoCoMo Communications Labs GmbH, Germany;

⁴Technical University of Madrid, Spain; ⁵Agora Systems S.A., Spain; ⁶Ericsson España S.A., Spain

- Implementation Options, QoS Aspects and Economics of Phased UMTS deployments

D. Grillo, M. Montagna, F. Alfano, A. Colombo, S. Ricci
Alcatel Italia, Vimercate, Italy

- Adam Smith Goes Mobile: Managing Serviced Beyond 3G with the Digital Marketplace (Invited Paper)

J. Irvine
University of Strathclyde, Scotland

- Estimating Commitment in Digital Marketplace Environment

R. Mathur, J. Irvine, J. Dunlop
University of Strathclyde, Scotland

- Interoperability of Structured and Unstructured Services in Personal Mobility Information Space

A. Mingkhwan, M. Merabti, B. Askwith
Liverpool John Moores University, Liverpool, UK

- QoS provisioning in mobile Internet environment

S. Lepaja, R. Fleck, N. Nam Hoang
Technical University of Vienna, Austria

Advanced Wireless Systems and Services

Chair: Iwao Sasase, Keio University, Yokohama, Japan

- An Ultra Wide Bandwidth System for In-Home Wireless Networking

D. Gerakoulis¹, P. Salmi², S.S. Ghassemzadeh¹

¹ AT&T; Labs - Research, NJ, USA - ² University of Bologna, Italy

- Dynamic channel filtering method for multi-mode & multi-service software radio communication systems

R. Sawai¹, H. Harada², H. Shirai¹, M. Fujise²

¹ Chuo University, Japan, ² Communications Research Laboratory, Japan

- An Intelligent Handoff Scheme Based On Location Prediction Technologies

M.-H. Jin, E. H.-K. Wu, J.-T. Horng
National Central University, Chungli Taiwan

- Enhanced Location Techniques based on Accurate and Fast Propagation Models in Urban and Indoor Environments

G. Woelfle*, R. Hoppe+, D. Zimmermann+, F.M. Landstorfer+

* AWE communications, Germany; + University of Stuttgart, Germany

- Localising GSM Mobiles Inside Prisons

D. Mansel, E. Mârza, C. Dumitrescu²
Fachbereich Informatik, Gelsenkirchen, Germany; ² Facultatea de Electronică și Telecomunicații, Romania

Mobile Agents in Wireless Networks

Session Organizer: Antonio Puliafito, University of Messina, Italy

Chair: Antonio Puliafito

- Tracker: A Universal Location Management System for Mobile Agents (Invited Paper)

G. Samaras¹, C. Spyrou¹, E. Pitoura², D. Marios¹

¹ University of Cyprus, Cyprus; ² University of Ioannina, Greece

- Flexible, Mobile Agent based Intrusion Detection for Dynamic Networks

C. Krugel, T. Toth

Technical University of Vienna, Austria

- Digital still cameras and mobile agents: How to create a distributed service for image processing (Invited Paper)

M. Mancuso¹, M. Guarnera¹, A. Puliafito², M. Villari²

¹ St Microelectronics, Milano, Italy; ² Università di Messina, Italy

- CORTEX: Towards Supporting Autonomous and Cooperating Sentient Entities (Invited Paper)

P. Verissimo¹, V. Cahill², A. Casimiro¹, K. Cheverst³, A. Friday³, J. Kaiser⁴

¹ University of Lisboa, Portugal; ² Trinity College Dublin, Ireland; ³ University of Lancaster, UK; ⁴ University of Ulm, Germany

TRACK C

Signal Equalization and Channel Estimation

Chair: Kung Yao, University of California, Los Angeles, USA

- Frequency Scaled Time Domain Equalization for OFDM in Wireless Communication

V.S. Abhayawardhana, I.J. Wassel

University of Cambridge, UK

- Channel Estimation with Pilot-Symbols over WSSUS Channels

I. Perisa, J. Egle, J. Lindner

University of Ulm, Germany

- A New Unified Approach to Adaptive Blind Equalization for Multicarrier CDMA Systems with Receiver Diversity

D. Chen and K. Yao

UCLA, CA, USA

- Comparative Study of Efficient Decision-Feedback Equalization Schemes for MIMO Systems

C. Degen, C. Walke, B. Rembold

Aachen University of Technology, Germany

- Reduction of Co-Channel Interference in GSM by Joint Channel and Data Estimation

M. Loncar, C. F. Mecklenbrauker, R. Muller

Telecommunications Research Center Vienna, Austria

- Estimation of Time-Varying Wireless Channels and Application to the UMTS W-CDMA FDD Downlink

M. Lenardi, D.T.M. Slock

Institut Eurecom, France

Modulation and Signal Synchronization

Chair: Helmut Boelcskei, University of Illinois at Urbana-Champaign, USA

- Acquisition of Orthogonal Modulated Signals in Rayleigh-Fading Channels

P. Xiao, E. Strom

Chalmers University of Technology, Goteborg, Sweden

- *A Novel Carrier Phase Recovery Method for Turbo-Coded QPSK Systems*

L. Zhang, A. Burr
University of York, UK

- *LPDC-coded adaptive modulation on slowly varying Nakagami-fading channels*

B. Myhre*, V. Markhus⁺, G.E. Øien⁺

* SINTEF Telecom and Informatics, Norway; ⁺ Norwegian University of Science and Technology, Norway

- *Blind Estimation of the Modulation Scheme Adapted to Noise Power Based on a Concept of Software Define Radio*

K. Umehayashi, S. Ishii, R. Kohno
Yokohama National University, Japan

- *Frame Synchronization and Digital AGC for OFDM Based WLAN*

C.-S. Peng, C.-H. Cho, K.-A. Wen
National Chiao Tung University, Taiwan

- *Iterative Carrier Phase Synchronization for Coherent Detection of Turbo-Coded Modulations*

V. Lottici, M. Luise
University of Pisa, Italy

Space-Time Signal Processing for Wireless Systems

Chair: Sergio Barbarossa, University of Rome "La Sapienza", Italy

- *On the equivalence of Space-Time Block Coding with Multipath Propagation and/or Cyclic Delay Diversity in OFDM*

A. Dammann¹, P. Lusina², M. Bossert²,

¹ German Aerospace Center (DLR) - ² University of Ulm, Germany

- *Enhancement of Hiperlan/2 System using Space-Time Coding*

M. Gidlund
Royal Institute of Technology, Stockholm, Sweden

- *Optimized Design and Performance of Multiple-Antenna 4th Generation WLANs for Partially Coherent Decoding*

E. Baccarelli, M. Biagi, A. Fasano
Università di Roma 1, Italy

- *Space-time UMTS uplink system for future generation mobile radio communication system*

S.L. Ling, M.F. Siyau, R.F. Ormondroyd
Cranfield University, RMCS, Swindon, UK

- *Reflections on Smart Antennas for MAC Protocols in Multihop Ad Hoc Networks*

H. Koubaa
LORIA INRIA, Vandoeuvre-Les-Nancy, France

Channel Coding: from Theory to Practice

Chair: Marco Luise, University of Pisa, Italy

- *On Diagonal Space-Time Codes Using Algebraic Rotations*

M.O. Damen, N.C. Beaulieu
University of Alberta, Canada

- *Adaptive Coding Schemes Using Finite State Machine for Software Defined Radio*

K. Ikemoto, R. Kohno
Yokohama National University, Japan

- *Coding of short control frames for UMTS mobile communication*

W. Adi, F. Kriaa
University of Braunschweig, Germany

