



Technical Program

Monday, April 4, 2005

8:45 - 9:00 Workshop Opening

E. Altman, H. Karl, R. Mazumdar, I. Stavrakakis

9:00 - 10:10 Performance Modeling & Optimization (I)

Session Chair: Yoshikumi Onozato

Closed and Open Loop Optimal Control of Buffer and Energy of a Wireless Device

V. Borkar, A. A. Kherani, and B. J. Prabhu

On the Transport Capacity of Gaussian Multiple Access and Broadcast Channels

G. A. Gupta, S. Toumpis, J. Sayir and R. R. Müller

The Effect of Retransmitted Packet Size

Preservation Property on TCP Goodput over Links with Bernoulli Bit-Errors

T. Ikegawa and Y. Takahashi

10:10 - 10:25 Coffee break

10:25 - 12:20 Security & Cooperation Issues

Session Chair: Tamer Basar

Transmission Costs, Selfish Nodes, and Protocol Design

P. Marbach and R. Pang

Analysis of a Reputation System for Mobile Ad-Hoc Networks with Liars

J. Mundinger and J.-Y. Le Boudec

Secure Comparison of Encrypted Data in Wireless Sensor Networks

M. Acharya, J. Girao, and D. Westhoff

A Game-Theoretic Analysis on the Conditions of Cooperation in a Wireless Ad Hoc Network

Se. Bandyopadhyay and Su. Bandyopadhyay

Preventing Impersonation Attacks in MANET with Multi-factor Authentication

D. Glynos, P. Kotzanikolaou, and C. Douligeris

12:20 - 13:50 Lunch break

13:50 - 15:20 Power Control & Resource Management (I)

Session Chair: Peter Marbach

Minimum Energy Transmission Scheduling Subject to Deadline Constraints

A. Tarello, J. Sun, M. Zafer, and E. Modiano

Distributed Power Allocation and Scheduling for Parallel Channel Wireless Networks

X. Qin and R. Berry

Distributed Fair Resource Allocation in Cellular Networks in the Presence of Heterogeneous Delays

L. Ying, R. Srikant, A. Eryilmaz, and G. E. Dullerud

Power Control and Multiuser Diversity in Multiple Access Channels with Two Time-Scale Fading

A. S. C. Leong, J. S. Evans, and S. Dey

15:20 - 15:35 Coffee break

15:35 - 17:05 Infrastructure WLANs

Session Chair: Ravi Mazumdar

Using the 802.11e EDCF to Achieve TCP Upload Fairness over WLAN Links

D. J. Leith and P. Clifford

A Novel Call Admission Control in Multi-service Wireless LANs

D. Chen, A. K. Elhakeem, and X. Wang

Performance Measurements of the Saturation Throughput in IEEE 802.11 Access Points

E. Pelletta and H. Velayos

A Novel Framework for Radio Resource Management in IEEE 802.11 Wireless LANs

M. Davis and T. Raimondi

Monday 19:30 - 21:00pm

Gala Conference Dinner in the

Hotel Restaurant courtesy of WIOPT

Tuesday, April 5, 2005

8:45 - 9:45 Keynote Speech

Chair: Ravi Mazumdar

Analysis and Optimisation of IEEE 802.11 Wireless Local Area Networks

Anurag Kumar

9:45 - 10:00 Coffee break

10:00 - 12:45 Ad Hoc and Sensor Networks

Session Chair: Mingyang Lin

Distributed Topology Control of Wireless Networks

V. S. Borkar (Tata Institute of Fundamental Research, India) and D. Manjunath (Indian Institute of Technology, India)

Modular Analytical Performance Models for Ad Hoc Wireless Networks

F. L. Dotti, P. Fernandes, A. Sales, and O. M. dos Santos

Interference Power Sum with Log-Normal

Components in Ad-Hoc and Sensor Networks

R. Hekmat and P. Van Mieghem

Break

A Simulated Annealing Algorithm for Energy-Efficient Sensor Network Design

F. Y. S. Lin and P. L. Chiu

On Range Matrices and Wireless Networks in d Dimensions

M. Desai and D. Manjunath

A New Relaying Scheme for Cheap Wireless Relay Nodes

R. Khalili and K. Salamatian

12:45 - 14:30 Lunch break

14:30 - 16:30 Routing & Mobility

Session Chair: Ioannis Stavrakakis

On the Predictability of Link Lifetimes in Urban MANETs

S. Bohacek, A. Ilic, and V. Sridhara

An Interactive Transparent Protocol for Connection Oriented Mobility - Performance Analysis with Voice Traffic

R. Y. Zagher, S. Davu, and J. I. Khan

Coffee break 14:45 - 15:00

Optimal Controlled Flooding Search in a Large Wireless Network

N. B. Chang and M. Liu

Mobility Prediction's Influence on QoS in Wireless Networks: A Study on a Call Admission Algorithm

J.-M. François and G. Leduc

Securing Route Optimisation in NEMO

M. Calderón, C. J. Bernardo, M. Bagnulo, and I. Soto

Wednesday, April 6, 2005

8:45 - 11:15 Routing

Session Chair: Kave Salamatian

NEURAL: A Self-Organizing Routing Algorithm for Ad Hoc Networks

V. E. Mujica V., D. Sisalem, and R. Popescu-Zeletin

Towards an Understanding of EASE and Its Properties

I. Ioannidis and P. Marbach

Analysis of a Distributed Algorithm to Determine Multiple Routes with Path Diversity in Ad Hoc Networks

S. Mueller and D. Ghosal

11:15 - 11:30 Coffee break

A Practical Approach to QoS Routing for Wireless Networks

T. Tung, Z. Jia, and J. Walrand

Modeling and Analysis of Opportunistic Routing in Low Traffic Scenarios

R. C. Shah, S. Wiethölter, A. Wolisz, and J.M. Rabaey

Energy Saving Dynamic Source Routing for Ad Hoc Wireless Networks

M. Tarique, K. E. Tepe, and M. Naserian

11:15 - 11:30 Coffee break

11:30 - 12:40 Minimum Energy Broadcasting

Session Chair: Eitan Altman

Tighter Bounds for the Minimum Energy Broadcasting Problem

A. Navarra

Computing Optimal or Near-Optimal Trees for Minimum-Energy Broadcasting in Wireless Networks

D. Yuan

Iterated Local Optimization for Minimum Energy Broadcast

I. Kang and R. Poovendran

12:40 - 14:10 Lunch break

14:10 - 15:40 Performance Modeling & Optimization (II)

Session Chair: Andreas Pitsillides

k-Server Optimal Task Scheduling Problem with Convex Cost Function

M. Lin and Y. Ma

Finite State Markov Model for Effective Bandwidth Calculation in Wireless Packet Networks

S. R. Kundu, K. Basu, and S. K. Das

Minimizing Delay in Loss-Tolerant MAC Layer Multicast

P. Chaporkar and S. Sarkar

A New Hybrid Scheduling Framework for Asymmetric Wireless Environments with Request Repetition

N. Saxena, C. M. Pinotti, K. Basu, and S. K. Das

15:40 - 15:55 Coffee break

15:55 - 17:25 Power Control & Resource Management (II)

Session Chair: Holger Karl

Power Control for Multicell CDMA Wireless Networks: A Team Optimization Approach

T. Alpcan, X. Fan, T. Başar, M. Arcak, and J. T. Wen

Ordered Statistics Based Rate Allocation Scheme for Closed Loop MIMO-OFDM System

X. He, S. Wang, W. Zhang, and X. Gan

A Simulation Tool to Evaluate Radio Resource Management Algorithms for Enhanced UMTS

V. Vassiliou, J. Antoniou, G. Hadjipollas, and A. Pitsillides

An Optimization Framework for Radio Resource Management Based on Utility vs. Price Tradeoff in WCDMA Systems

L. Badia, C. Saturni, L. Brunetta, and M. Zorzi