

Tentative Program of MobiHoc 2005

Tuesday, May 24

Pre-Conference Reception
5pm-7pm at the Siebel Center for Computer Science

Wednesday, May 25

Registration Opens 8am at Loomis Hall

Keynote talk

8:30am-10am at Loomis Hall

Toward the Sensor Network Macroscopic
David E. Culler (University of California, Berkeley, USA)

Coffee Break: 10-10:30am at Loomis Hall

Session 1A: Clustering 1

10:30am-12noon at Loomis Hall

Distributed Low-Cost Backbone Formation for Wireless Ad Hoc Networks

Yu Wang (University of North Carolina at Charlotte, USA)

Xiang-Yang Li (Illinois Institute of Technology, USA)

On the Node-Scheduling Approach of Topology Control for Power Conservation in MANETs

Budhaditya Deb (Rutgers University, USA)

Badri Nath (Rutgers University, USA)

On maximizing the lifetime of distributed information in ad hoc networks with individual constraints

Cedric Westphal (Nokia Research Center, USA)

Session 1B: Security

10:30am-12noon at Loomis Hall

Toward Resilient Security in Wireless Sensor Networks

Hao Yang (University of California, Los Angeles, USA)

Fan Ye (University of California at Los Angeles, USA)

Yuan Yuan (University of Maryland, College Park, USA)

Songwu Lu (University of California at Los Angeles, USA)

William Arbaugh (Univ. of Maryland, USA)

The Feasibility of Launching and Detecting Jamming Attacks in Wireless Networks

Wenyuan Xu (Rutgers University, USA)

Wade Trappe (WINLAB, Rutgers University, USA)

Yanyong Zhang (Rutgers University, USA)

Timothy Wood (Rutgers University, USA)

An Efficient Scheme for Authenticating Public Keys in Sensor Networks
Wenliang Du (Syracuse University, USA)
Ronghua Wang (Syracuse University, USA)
Peng Ning (North Carolina State University, USA)

Lunch: 12noon-2pm

Directions will be given to Campustown Restaurants within walking distance (near Green and Sixth Street).

Session 2A: Topology Control & Mobility

2-3:30pm at Loomis Hall

Interference-Aware Topology Control and QoS Routing in Multi-Channel Wireless Mesh Networks

Jian Tang (Arizona State University, USA)
Guoliang Xue (Arizona State University, USA)
Weiyi Zhang (Arizona State University, USA)

Performance Analysis of the Distributed Scheduler in IEEE 802.16 Mesh Mode

Min Cao (University of Illinois, Urbana-Champaign, USA)
Wenchao Ma (Microsoft Research Asia, China)
Qian Zhang (Microsoft Research Asia, China)
Xiaodong Wang (Columbia University, USA)
Wenwu Zhu (Intel China, CN)

Stationary Distributions of Random Walk Mobility Models for Wireless Ad Hoc Networks

Michael McGuire (University of Victoria, Canada)

Session 2B: Clustering 2

2-3:30pm at Loomis Hall

A Distributed Coordination Framework for Wireless Sensor and Actor Networks

Tommaso Melodia (Georgia Institute of Technology, USA)
Dario Pompili (Georgia Institute of Technology, USA)
Vehbi Cagri Gungor (Georgia Institute of Technology, USA)
Ian Akyildiz (Georgia Institute of Technology, USA)

Power Balanced Coverage Time Optimization for Clustered Wireless Sensor Networks

Tao Shu (University of Arizona, USA)
Marwan Krunz (University of Arizona, USA)
Sarma Vrudhula (University of Arizona, USA)

Inducing Spatial Clustering in MAC Contention for Spread Spectrum Ad Hoc Networks

Xiangying Yang (University of Texas at Austin, USA)
Gustavo de Veciana (University of Texas at Austin, USA)

Coffee Break 3:30-4pm at the Coordinated Science Laboratory

Demos 3:30-5:30pm at the Coordinated Science Laboratory

Dinner 1: 5:45-9pm

Krannert Center for the Performing Arts
Wine, Hors D'Oeuvres, and Dinner

Thursday, May 26

Session 3A: Transport 1

8am-10am at Loomis Hall

Characterizing Achievable Multicast Rates in Multi-Hop Wireless Networks

Randeep Bhatia (Bell Labs, Lucent Technologies, USA)

Li Li (Bell Labs, Lucent Technologies, USA)

Distributed dynamic scheduling for end-to-end rate guarantees in wireless ad hoc networks

Theodoros Salonidis (University of Maryland at College Park, USA)

Leandros Tassioulas (University of Thessaly, USA)

Cross-Layer Rate Control for End-to-End Proportional Fairness in Wireless Networks with Random Access

Xin Wang (Rensselaer Polytechnic Institute, USA)

Koushik Kar (Rensselaer Polytechnic Institute, USA)

On the End-to-end Call Acceptance and the Possibility of Deterministic QoS Guarantees in Ad hoc Wireless Networks

Sriram Sankararaman (Indian Institute of Technology, Chennai, India)

Tamma Bheemarjuna Reddy (Indian Institute of Technology, Chennai, India)

Manoj B. S. (Indian Institute of Technology, Chennai, India)

Siva Ram Murthy (Indian Institute of Technology, Chennai, India)

Session 3B: Location Services

8am-10am at Loomis Hall

Localization and Routing in Sensor Networks by Local Angle Information

Jehoshua Bruck (California Institute of Technology, USA)

Jie Gao (California Institute of Technology, USA)

Anxiao Andrew Jiang (California Institute of Technology, USA)

Easily-managed and topological-independent location service for self-organizing networks

Aline Viana (University of Paris VI, France)

Marcelo Amorim (University of Paris VI, France)

Yannis Viniotis (North Carolina State University, USA)

Serge Fdida (University Pierre and Marie Curie, France)

Jose F. de Rezende (Federal University of Rio de Janeiro, Brazil)

Sextant: A Non-Convex Constraint-Based Node and Event Localization Framework

Rohan Murty (Cornell University, USA)

Saikat Guha (Cornell University, USA)
E. Gun Sirer (Cornell University, USA)
Scalable Location Services for Hierarchically Organized Mobile Ad hoc Networks
Sivavakeesar Sivapathalingham (University of Surrey, UK)
George Pavlou (University of Surrey, UK)

Coffee Break 10-10:30am at Loomis Hall

Plenary Panel

10:30am-12:30pm at Loomis Hall.

Openness' and the Public Airwaves

Organizer: Sascha D. Meinrath, CUWiN, Urbana-Champaign

Lunch 12:30pm-2pm

Directions will be given to Campustown Restaurants within walking distance
(near Green and Sixth Street).

Session 4A: Routing 1

2-3:30pm at Loomis Hall

Efficient Geographic Routing in Multihop Wireless Networks

Seungjoon Lee (University of Maryland at College Park, USA)

Samrat Bhattacharjee (University of Maryland at College Park, USA)

Suman Banerjee (University of Wisconsin, USA)

Link-Layer Salvaging for Making Routing Progress in Mobile Ad Hoc Networks

Chansu Yu (Cleveland State University, USA)

Kang G. Shin (University of Michigan, USA)

Lubo Song (Cleveland State University, USA)

A Secure Ad-hoc Routing Approach Using Localized Self-healing Communities

Jiejun Kong (University of California at Los Angeles, USA)

Xiaoyan Hong (University of Alabama, USA)

Yunjung Yi (University of California, at Los Angeles, USA)

Joon-Sang Park (University of California, Los Angeles, USA)

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

Session 4B: Transport 2

2-3:30pm at Loomis Hall

Reliable Bursty Convergecast in Wireless Sensor Networks

Hongwei Zhang (Ohio State University, USA)

Anish Arora (Ohio State University, USA)

Young-ri Choi (University of Texas at Austin, USA)

Mohamed Gouda (University of Texas at Austin, USA)

TCP over Multihop 802.11 Networks: Issues and Performance Enhancement

Kitae Nahm (University of Southern California, USA)

Ahmed Helmy (University of Southern California, USA)

C.C. Jay Kuo (University of Southern California, USA)

TCP with Adaptive Pacing for Multihop Wireless Networks

Sherif ElRakabawy (University of Dortmund, Germany)
Alexander Klemm (University of Dortmund, Germany)
Christoph Lindemann (University of Dortmund, Germany)

Coffee Break 3:30-4pm at Siebel Center for Computer Science

Poster Session 3:30-5:30pm at Siebel Center for Computer Science

Dinner 2: 5:45-9pm

Kennedy's at Stone Creek
Wine, Hors D'Oeuvres, and Dinner

Friday May 27

Session 5A: Theory

8-9:30am at Loomis Hall

Mobility Improves Coverage of Sensor Networks

Benyuan Liu (University of Massachusetts Lowell, USA)

Peter Brass (City College of New York, USA)

Olivier Dousse (EPFL, Switzerland)

Philippe Nain (INRIA, Sophia Antipolis, France, France)

Don Towsley (University of Massachusetts at Amherst, USA)

Deploying Sensor Nets with Guaranteed Capacity and Fault Tolerance

Jonathan Bredin (Colorado College, USA)

Erik Demaine (Massachusetts Institute of Technology, USA)

Mohammad Taghi Hajiaghayi (MIT, USA)

Daniela Rus (MIT, USA)

Analysis of Hop-Distance Relationship in Spatially Random Sensor Networks

Serdar Vural (The Ohio State University, USA)

Eylem Ekici (Ohio State University, USA)

Session 5B: Applications

8-9:30am at Loomis Hall

Low-coordination Topologies for Redundancy in Sensor Networks

Rajagopal Iyengar (Rensselaer Polytechnic Institute, USA)

Koushik Kar (Rensselaer Polytechnic Institute, USA)

Suman Banerjee (University of Wisconsin-Madison, USA)

A Cross Layer Optimization of Gnutella for Mobile Ad hoc Networks

Giovanni Turi (IIT-CNR, Italy)

Marco Conti (IIT-CNR, Italy)

Enrico Gregori (IIT-CNR, Italy)

Towards Commercial Mobile Ad Hoc Network Applications: A Radio Dispatch System

Elgan Huang (University of Cambridge, UK)

Wenjun Hu (University of Cambridge, UK)

Jon Crowcroft (University of Cambridge, UK)
Ian Wassell (University of Cambridge, UK)

Coffee Break 9:30-10am at Loomis Hall

Session 6A: Sensor Networks

10am-12noon at Loomis Hall

Hybrid Sensor Networks: A Small World

Gaurav Sharma (Purdue University, USA)

Ravi Mazumdar (Purdue University, USA)

Least Privilege and Privilege Deprivation: Towards Tolerating Mobile Sink

Compromises in Wireless Sensor Networks

Wensheng Zhang (Pennsylvania State University, USA)

Hui Song (Pennsylvania State University, USA)

Sencun Zhu (Pennsylvania State University, USA)

Guohong Cao (Pennsylvania State University, USA)

Minimum Power Configuration in Wireless Sensor Networks

Guoliang Xing (Washington University in St. Louis, USA)

Chenyang Lu (Washington University in St. Louis, USA)

Ying Zhang (Palo Alto Research Center, USA)

Qingfeng Huang (Palo Alto Research Center, USA)

Robert Pless (Washington University in St. Louis, USA)

Efficient Gathering of Correlated Data in Sensor Networks

Himanshu Gupta (SUNY, Stony Brook, USA)

Vishnu Navda (SUNY, Stony Brook, USA)

Samir Das (SUNY, Stony Brook, USA)

Vishal Chowdhary (SUNY, Stony Brook, USA)

Session 6B: Routing 2

10am-12noon at Loomis Hall

Temporal Properties of Low-Power Wireless Links: Modeling and Implications on
Multi-Hop Routing

Alberto Cerpa (University of California at Los Angeles, USA)

Jennifer Wong (University of California Los Angeles, USA)

Miodrag Potkonjak (University of California at Los Angeles, USA)

Deborah Estrin (University of California at Los Angeles, USA)

Maximum-Lifetime Routing Algorithms for Networks with Omnidirectional and
Directional Antennas

Ariel Orda (Technion-Israel Institute of Technology, Israel)

Ben-Ami Yassour (IBM Research Laboratory in Haifa, Israel)

Timed Grid Routing (TIGR) Bites off Energy

Roy Friedman (Technion-Israel Institute of Technology, Israel)

Guy Korland (Technion-Israel Institute of Technology, Israel)

Minimum Energy Reliable Paths Using Unreliable Wireless Links

Qunfeng Dong (University of Massachusetts at Amherst, USA)

Micah Adler (University of Massachusetts at Amherst, USA)

Suman Banerjee (University of Wisconsin, USA)
Archan Misra (IBM T J Watson Research Center, USA)

Conference ends at 12 noon.

Tutorials Program

Friday, May 27

Tutorial 1

1pm-5pm at Siebel Center for Computer Science

Location Services

Cross-Layer Design for Wireless Networks

Ness Shroff (Purdue University, USA)

There will be a break of Coffee 3-3:30pm.

Saturday, May 28

Tutorial 2

8am-12noon at Siebel Center for Computer Science

Algorithm and Graph Issues In Wireless Networks

Xiang-Yang Li (Illinois Institute of Technology, USA)

There will be a break for Coffee 10-10:30am.