

PRELIMINARY PROGRAM:

The Society for Computer Simulation International (SCS) presents:

Communication Networks and Distributed Systems
Modeling and Simulation Conference 2002 (CNDS '02)

Part of the 2002 Western Multiconference on Computer Simulation
January 27-31 2002, San Antonio, Texas

General Chair: **Taieb Znati,**
 Sr. Program Director
 National Science Foundation
 Advanced Networking Research, and
 Dept. of Computer Science
 University of Pittsburgh.

Program Chair: **A. Bruce McDonald,**
 Dept. of Electrical and Computer Engineering,
 Northeastern University

A Message from the Technical Program Chair:

MONDAY: January 28

WMC KEYNOTE SESSION 9:00am – 10:00am:

Keynote Address: (Speaker?)
Dynamic Data Drive Application Systems

SESSION 1: 10:30am – 12:00pm Simulation Methods 1

C114: Scenario Switches and State Updates in an Agent-based Solution to
Constructing Interactive Simulation Systems
Z. Zhao, R.G. Belleman, G.D. van Albada, P.M.A. Sloot, Universiteit van Amsterdam, the Netherlands

C100: Fast and Accurate Synthesis of Correlated Processes by Pre-Compensated
Transfer of Correlation
Robert Geist, James Westall, Clemson University, USA

C156: Using the GridSim Toolkit for Enabling Grid Computing Education
Manzur Murshed, Rajkumar Buyya, Monash University, Australia

SESSION 2: 1:30pm – 3:00pm Wireless Systems 1

C123: Improving Handoff Performance in Overlay Networks
Fan Du, Lionel M. Ni, Abdol-Hossein Esfahanian, Michigan State University, USA

C121: Evaluation of UMTS Cell Coverage and Capacity for Voice Traffic using the ETSI-
3GPP QoS Model
Paolo Giacomazzi, Luigi Musumeci, Giacomo Verticale Univ. Politecnico di Milano, Italy

C122: BRICKS: A Slotted CDMA Protocol for Efficient Integration of Voice and Data
Hongjun Zhang, Pawel Gburzynski, University of Alberta, Canada

SESSION 3: 3:30pm – 5:00pm Network Algorithms and Analysis

C136: A TCP-like Receiver-driven Layered Multicast Transmission Scheme
Dirk Trossen, Nokia Research Center Boston, USA

C126: A Disjoint Multicast Routing Algorithm for Pancake Graphs
Keiichi Kaneko, Yasuto Suzuki, Tokyo University of Agriculture and Technology, Japan

C119: Modeling and Simulation of a Network for Structural Health Monitoring
Ravi Mukkamala, Mohamed Moharrum, Old Dominion University, USA

TUESDAY: January 29

CNDS KEYNOTE SESSION: 9:00 – 10:00

Prof. Erol Gelenbe, University of Central Florida, USA
Topic: Cognitive Packet Networks

SESSION 4: 10:30am – 12:00am Simulation Methods 2

C132: On Shortcomings of the ns-2 Random Number Generator
Bernhard Hechenleitner, Karl Entacher, University of Applied Sciences and Technology, Salzburg, Austria

C142: Coarse-Grained Network Simulation for Wide-Area Distributed Systems
Syam Gadde, Jeff Chase, Amin Vahdat, Duke University, USA

C150: Design, Realization, and Evaluation of a Component-Based Compositional
Network Simulation Environment
Hung-Ying Tyan, IP Networking Research, Fujitsu Labs of America, Jennifer C. Hou, University of Illinois at
Urbana Champaign, USA

WMC LUNCHEON: 12:00pm – 1:30pm
Invited Speaker TBA

SESSION 5: 2:00pm – 3:00pm Emerging Topics---Short Paper Session
Poster Session open 3:00pm - 5:00 pm

C116: Modeling the Communications Capabilities of the Infantry Soldier
A. Hall, J. Surdu, F. Maymi, United States Military Academy, West Point, USA

C153: Routing Simulation in the Fabric-Area-Network Supplied by Measurement Data
Christian Decker, Michael Beigl, University of Karlsruhe, Germany

C120: Multi-Source Performance Analysis of Distributed Software
Christoph Steigner, Jurgen Wilke, University of Koblenz-Landau, Germany

C151: Modeling MAC Performance in Mobile Ad Hoc Network Simulation
Kai Li, Asis Nasipuri, University of North Carolina at Charlotte, USA

SESSION 6: 3:30pm – 5:00pm Ad Hoc Networks 1

C140: Simulation and Emulation of Mobile Ad Hoc Networks: Fidelity and Complexity
Scott F. Midkiff, Virginia Polytechnical Institute, USA

C143: A Real-Time Emulation System for Ad Hoc Networks
Juan Flynn Hiesh Tewarim Donal O'Mahony, Trinity College Dublin, Ireland

C099: Design and Evaluation of an Individually Simulated Mobility Model in Wireless Ad
Hoc Networks
Desney S. Tan, Shuheng Zhou, Jiann-Min Ho, Janak S. Mehta, Hideaki Tanabe, Carnegie-Mellon
University, USA

WEDNESDAY: January 30

SESSION 7: 8:30am – 10:00am System Design and Analysis

C109: Increasing Predictive Accuracy through Limited Prefetching
Tsozen Yeh, Darrell D. E. Long, Scott A. Brandt, University of California Santa Cruz, USA

C160: General Method for Finding the Most Economical Distributed Router Architecture
Lukas Kencl, IBM Zurich Research, Switzerland, Bozidar Radunovic, EPFL, Switzerland

C106: Performance Modeling for Task-Parallel Programs
Matthias Kuhnemann, Tech. Niv. Chemnitz, Thomas Rauber, Univ Halle-Wittenberg, Gudula Runger, Tech. Univ. Chemnitz, Germany

SESSION 8: 10:30am – 12:00pm Wireless Systems 2

C134: Bluetooth Technology: Key Challenges and Initial Research
Roch Guerin, University of Pennsylvania, Enyoung Kim, Lucent Technologies/Bell Labs, Saswati Sarkar, University of Pennsylvania, USA

C125: Survivability Analysis for Mobile Cellular Networks
David W. Tipper, Chalermopol Charnsripinyo, Hyundoo Shin, University of Pittsburgh, USA

C135: Channel Capacity Assessment for GPRS
John N. Daigle, University of Mississippi, USA, K. H. Daigle, KHD Systems, USA

SESSION 9: 1:30pm – 3:00pm Ad Hoc Networks 2

C148: A Scalable Routing Scheme for Self-Organized Terminode Networks
Ljubica Blazevic, Jean-Yves Le Boudec, Silvia Giordano, EPFL, Switzerland

C128: Integrating Simple yet Robust Protocol Layers for Wireless Ad Hoc Inter-Vehicle Communications
Linda Briesmeister, Gunter Hommel, Technical University of Berlin, Germany

C152: Secure Routing for Mobile Ad Hoc Networks
Panagiotis Papadimitratos, Zygmunt Haas, Cornell University, USA

SESSION 10: 3:30pm – 5:00pm Modeling QoS Delivery

C155: Layer 7 Integrated QoS Routing Architecture for Content Delivery Network
Atsushi Iwata, Norihito Fujita, Networking Research Laboratories, NEC Corporation, Japan, Rauf Izmailov, C&C Research Laboratories, NEC Corporation, USA

C146: Capturing Scene Changes in the Autoregressive Model
C. Amo-Quarm, M. Mezhoudi, Lucent Technologies/Bell Labs, USA

C133: Performance Analysis of a Managed Bandwidth Service for ATM Networks
Christos Bouras, Chryssi Chantzi, Vaggelis Kapoulas, Alexandros Panagopoulos, Ionna Samraku, Afrodite Sevasti, Univ. of Patras, Greece

THURSDAY: January 31

SESSION 11: 8:30am – 10:00am WWW Caching and Traffic Modeling

C112: On Zipf's Law and the Effectiveness of Hierarchical Caching
Xiangying Yang, Gustavo de Venciana, University of Texas at Austin, USA

C147: Influence of the Document Validation/Replication Methods on Cooperative Web Proxy Caching Architectures
Victor J. Sosa, Leandro Navarro, Universidad Politecnica de Cataluna, Barcelona Spain

C139: Web Traffic Characterization using a Mixture of Parsimonious Distributions
Cesar Jalpa-Villanueva, Universidad Autonoma Metropolitana, Mexico, Zhen Liu, IBM T. J. Watson Research Center, USA, Nicolas Niclausse, Sylvain Barbier, INRIA, Center Sophia Antipolis, France

SESSION 12: 10:30am – 12:00pm Wireless Systems 3

~~A New Ray Tracing Algorithm for Propagation Prediction in Broadband Wireless Channels~~ (LATE WITHDRAWAL FROM PROGRAM)
~~Hossein Zare, Amirkabir University of Technology, Iran, Mahdi Nozafat, The Johns Hopkins University, USA~~

C129: Modeling IP-Based Mobility Management
Wolfgang Schoenfeld, Andreas Meissner, Holger Kirchner, Ralf Steinmetz, Fraunhofer IPSI, Germany

C131: Simulation of Mobile Applications
Fernando Luis Dotti, Lucio Mauro Duarte, Bernardo Copstein, PUCRS, Brazil, Leila Ribeiro, UFRGS, Brazil

The International Technical Program Committee:

Ian F. Akyildiz	Georgia Institute of Technology
Stefano Basagni	University of Texas at Dallas
Bobby Bhattacharjee	University of Maryland
Saad Biaz	Texas A&M University
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Patrick Dowd	University of Maryland
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Amir Hossein Jahangir	Sharif University of Technology
David Kaeli	Northeastern University (Barcelona)
Helen Karatza	Aristotle University of Thessaloniki
Prashant Krishnamurthy	University of Pittsburgh
Srikanth Krishnamurthy	University of California Riverside
Sung-Ju Lee	Hewlett-Packard Labs
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Mark Stover	Cisco Systems
Mineo Takai	University of California Los Angeles
Gary Tan	National University of Singapore
Phil Wilsey	University of Cincinnati
Arkady Zaslavsky	Monash University