

International Conference on Applied Modeling & Information Security Systems

October 8-10, 2009

Hill University Center

University of Alabama at Birmingham

Sponsored by

NASA, DOD High Performance Computing Modernization Office,
Krell Institute, Institute of Applied Science & Computations,
Eastern Illinois University and University of Alabama at Birmingham

Honoring

Professor Joe F. Thompson Jr., Aerospace Engineering Department,
Mississippi State University

AGENDA

Thursday, October 8, 2009

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| 7:00 | Shuttle begins service to Hill University Center (2 trips will be made) |
| 7:30 - 4:00 | Registration |
| 8:00 - 8:30 | Introduction and Welcome
Suhrit Dey, Eastern Illinois University
Bharat Soni, University of Alabama at Birmingham, and
John Ziebarth, Krell Institute |
| 8:30 - 9:15 | NASA Supercomputing and Its Impact on Agency Missions
Rupak Biswas, NASA-Ames Research Center |

- 9:15 - 10:00 Using Differential Evolution (DE) Algorithm for Solving Traveling Sales Problem by Using the Adjacency Matrix Approach
Sajal Dey, Lindenwood University
- 10:00 - 10:30 Break
- 10:30 - 11:15 Fox in the Hen House: Increasing Visibility into Security Incidents
Adam Dodge, Eastern Illinois University
- 11:15 - 11:45 Mathematical Modeling of Cost Optimization for Energy Production
Suhrit Dey, Eastern Illinois University
- 11:45 - 12:00 Discussions
- 12:00 - 1:30 Lunch on your own
- 1:30 - 2:15 Software Model Checking with Blast
Rupak Mazumdar, University of California, Los Angeles
- 2:15 - 3:00 Rate Distortion Theory for Interactive Systems
Jim Glazebrook, Eastern Illinois University
- 3:00 - 3:30 Break
- 3:30 - 4:00 Title: TBA
Mike Hoadley, Eastern Illinois University
- 4:00 - 4:30 Sharp Apriori Bounds for Singular Perturbation Problems
W. Zhang, Adrian College
- 4:40 - 5:00 Odd vs. Even: A Study on the Stability of Five Numerical Techniques
Olcay Ilicasu, Rowan University

Shuttle leaves for Dinner at 5:15 pm

**Dinner Location: 1150 10th Avenue South,
Lobby, Business & Engineering Complex, UAB**

- 5:30 - 7:00 Dinner
Demonstration: 3D Visualization & Immersive Environment

Friday, October 9, 2009

- 7:30 Shuttle begins service to Hill University Center (2 trips will be made)
- 8:00 - 8:30 Registration and Coffee

- 8:30 - 9:15 "GridIT" – Introduction and History of Grid Generation
Bharat Soni, University of Alabama at Birmingham
- 9:15 - 10:00 Structured Grid Generation: Techniques & Progress
Peter Eiseman, Program Development Company, and
Jochem Hauser, Ostfalia University of Applied Science and HPCC-GmbH
- 10:00 - 10:30 Break
- 10:30 - 11:15 Meshing for Computational Fluid Dynamics Applications: History
Ramesh Agarwal, Washington University St. Louis
- 11:15 - 12:00 Computer Modeling of the Anatomy of Breast Cancer Treatment
Charlie Dey, Carle Clinic Association
- 12:00 - 1:30 Lunch on your own
- 1:30 - 2:00 Three-Dimensional Elliptic Grid Generation With Fully Automatic
Boundary Constraints
Upender Kaul, NASA Ames Research Center
- 2:00 - 2:30 Airflow Simulation in a Complex Building
Phu Luong, Robert Bernard and Mario Sanchez, Engineering Research
and Development Center, Coastal Hydraulic Laboratory
- 2:30 - 3:00 Polymer Modeling and GAMESS Code Optimization for the DoD
Jean Bladeau, High Performance Technologies, Inc
- 3:00 - 3:30 Break
- 3:30 - 4:00 Effect of Larynoph Aryneal Anatomy on Airflow and NANO-particle
Deposition in Human Nasal Airways
Jianxiang Xi and Rama Reddy, University of Arkansas
- 4:00 - 4:30 Unstructured Mesh Generation for Biomedical Applications
Alan Shih, University of Alabama at Birmingham

Shuttle will return attendees to Hyatt Place

Social & Banquet:

**Bharat Soni's Residence (2147 Brook Highland Ridge,
Birmingham, AL 35242)**

- 5:30 Shuttle departs for Soni Residence from Hyatt Place
- 6:00 - 7:00 Social
- 7:00 - 8:15 Dinner
- 8:15 - Event: Celebrating "Joe's Career"

Saturday, October 10, 2009

- 7:30 Shuttle begins service to Hill University Center (2 trips will be made)
- 8:00 - 8:15 Registration and Coffee
- 8:30 - 9:15 Neural Networks for Cryptosystem Identification
B. Chandra, Indian Institute of Technology, Delhi, India
- 9:15 - 9:45 Development of Algorithms to Automate Estimation of Time Codes for
Captioning Digital Media.
Dan Harvey and Ping Liu, Eastern Illinois University
- 9:45 -10:15 Break
- 10:15 -11:00 Identity Exposure Report and Privacy Commons
Aaron Titus, Liberty Coalition
- 11:00 - 11:30 A Probabilistic Study on Information Security Using Clusters
Suhrit Dey and Roma Dey, Eastern Illinois University
- 11:30 - 12:00 Creating A Secure Foundation for Internet Facing Applications
Thomas MacMullen, Eastern Illinois University
- Concluding Remarks
Suhrit Dey, Eastern Illinois University and
John Ziebarth, Krell Institute

Shuttle will return attendees to Hyatt Place