2009 INFORMS Simulation Society Research Workshop

Preliminary Program

Thursday, June 25

10:00 a.m.  Registration

11:00 a.m.  Workshop Opening and Welcome

PLENARY: Monte Carlo simulation environments and designing algorithms for them: n thoughts, where n is a positive integer
Bruce Schmeiser (Purdue University)

12:30 p.m. Lunch

1:45 p.m.  Session: Input Modeling

Advances in modeling and simulation of nonstationary arrival processes
Michael E. Kuhl (Rochester Institute of Technology) and James R. Wilson (North Carolina State University)

Modeling and simulation non-Poisson arrival processes to facilitate analysis
Barry L. Nelson (Northwestern University) and Ira Gerhardt (Manhattan College)

2:45 p.m. Break

3:00 p.m.  PLENARY: How modeling limits analysis – the long way from distributed simulation to reality
Peter Lendermann (D-SIMLAB Technologies)

4:00 p.m. Break

4:30 p.m.  Session: Distributed Simulation

Embedded ad hoc distributed simulation for transportation system monitoring and control
Michael Hunter (Georgia Institute of Technology), Jason Sirichoke (Hewlett-Packard Company), Richard Fujimoto (Georgia Institute of Technology) and Ya-Lin Huang (Georgia Institute of Technology)

Analysis of output data in distributed simulation
B. Vinod Kumar Reddy and Jayendran Venkateswaran (Indian Institute of Technology – Bombay)

6:00 p.m. Cocktails followed by BBQ Dinner served at 7:00 p.m.
Friday, June 26

8:30 a.m.  **PLENARY**: Non-standard statistical metamodels
            *Russell Cheng (University of Southampton)*

9:30 a.m.  Break

10:00 a.m. **Session: Analysis Methods I**
            Application of Monte Carlo sampling to assess experimental designs in developmental test
            *Derek A. Leggio (United States Strategic Command) and Raymond R. Hill (Air Force Institute of Technology)*

            Comparison of simulation output series using bootstrapping
            *Christine S.M. Currie and Lanting Lu (University of Southampton)*

**Session: Supply Chain**
            A web based simulation application
            *Cathal Heavey (University of Limerick), James Byrne (University of Limerick), Paul Liston (University of Limerick) and P.J. Byrne (Dublin City University)*

            Modeling and analyzing cargo screening processes: a project outline
            *Peer-Olaf Siebers (Nottingham University), Uwe Aickelin (Nottingham University), David Menachof (City University London), Galina ShermanCity (University London) and Peter Zimmerman (King’s College London)*

11:00 a.m. Break

11:15 a.m. **Session: Analysis Methods II**
            Robust simulation optimization
            *Jack P.C. Kleijnen (Tilburg University), Gabriella Dellino (University of Siena), and Carlo Meloni (Polytechnic of Bari)*

            Monte Carlo inference on sample-path roots
            *Raghu Pasupathy (Virginia Tech)*

**Session: Modeling Methods and Applications**
            A simulation based and an analytic modeling approach to calculate an appropriate number of FOUPs in wafer fabs
            *Lars Mönch (University of Hagen), Jens Zimmermann (University of Hagen), John W. Fowler (Arizona State University) and Scott J. Mason (University of Arkansas)*

            A virtual power system testbed for cyber security decision support
            *David M. Nicol (University of Illinois at Urbana-Champaign), Charles M. Davis (PowerWorld Corporation) and Thomas Overbye (University of Illinois at Urbana-Champaign)*

12:30 p.m. Lunch
1:45 p.m.  **PLENARY:** The key to promoting interaction between simulation modeling and analysis research: practice  
*Douglas J. Morrice (The University of Texas at Austin)*

2:45 p.m.  Break

3:00 p.m.  **Session: Output Analysis**  
Data collection budget allocation for stochastic data envelopment analysis  
*Loo Hay Lee, Wai Peng Wong and Wikrom Jaruphongsa (National University of Singapore)*

Automating discrete event simulation output analysis – automatic estimation of number of replications, warm-up period and run length  
*Kathryn Hoad, Stewart Robinson and Ruth Davies (The University of Warwick)*

**Session: Healthcare**  
Modeling and analysis of the trade-offs in surgical suite performance measures  
*Serhat Gul (Arizona State University), John W. Fowler (Arizona State University) and Brian T. Denton (North Carolina State University)*

A proposed approach for modeling care pathways for infrastructure design briefing  
*Amna Shibeika and Colin Gray (University of Reading)*

4:00 p.m.  Break

4:30 p.m.  **Session: Output Analysis/Dynamic Learning**  
The problem of the initial transient (again), or why MSER works  
*K. Preston White, Jr. (University of Virginia) and Stewart Robinson (University of Warwick)*

Dynamic learning in human decision behavior for evacuation scenarios under BDI Framework  
*Seungho Lee and Young-Jun Son (The University of Arizona)*

**Session: Agent-based Simulation**  
Investigating output accuracy for a discrete event simulation model and an agent based simulation model  
*Mazlina Abdul Majid, Uwe Aickelin and Peer-Olaf Siebers (Nottingham University)*

Determining the range of predictions for calibrated agent-based simulation models  
*DongFang Shi and Roger J. Brooks (Lancaster University Management School)*

6:30 p.m.  Motor Coach Departs for Dinner and Tour of St. Mary’s Guild Hall
8:30 a.m.  **PLENARY:** Why modeling still matters in discrete simulation  
*Michael Pidd (Lancaster University Management School)*

9:30 a.m.  Break

10:00 a.m.  **Session: Modeling Methods II**  
*A general SYSML model for discrete processes in production systems*  
*Oliver Schönherr and Oliver Rose (Dresden University of Technology)*

*Database meets simulation: tools and techniques*  
*Peter J. Haas (IBM Almaden Research Center) and Christopher Jermaine (Rice University)*

*What contributes to the quality of simulation results?*  
*Jan Himmelspach and Adelinde M. Uhrmacher (University of Rostock)*

11:30 a.m.  Break

11:45 a.m.  **Panel Discussion**

12:30 p.m.  Lunch