

Proceedings of the 2007 Winter Simulation Conference

**Washington DC
9-12 December 2007**

Pages 1-475



IEEE Catalog Number: CFP07WSC-PRT
ISBN 10: 1-4244-1305-2
ISBN 13: 978-1-4244-1305-8

Table of Contents

Keynote Address.....	1
<i>Susan Smyth</i>	
Fortieth Anniversary Special Panel: Landmark Papers.....	2
<i>David Goldsman, Pierre L'Ecuyer, David H. Withers, James O. Henriksen and Nilay Tanik Argon</i>	
Introduction to Simulation	14
<i>David Goldsman</i>	
Representing and Generating Uncertainty Effectively	26
<i>W. David Kelton</i>	
The Optimizing-Simulator: Merging Simulation and Optimization Using Approximate Dynamic Programming.....	31
<i>Warren B. Powell</i>	
Fundamentals of Simulation Modeling.....	42
<i>Paul J. Sanchez</i>	
Introduction to Modeling and Generating Probabilistic Input Processes for Simulation.....	51
<i>Michael E. Kuhl, Natalie M. Steiger, Emily K. Lada, Mary Ann Wagner and James R. Wilson</i>	
Statistical Analysis of Simulation Output Data: the Practical State of the Art.....	65
<i>Averill M. Law</i>	
Work Smarter, Not Harder: Guidelines for Designing Simulation Experiments.....	72
<i>Susan M. Sanchez</i>	
Agent-Based Modeling and Simulation: Desktop Abms	83
<i>Charles M. Macal and Michael J. North</i>	
Tips for Successful Practice of Simulation	95
<i>Deborah A. Sadowski</i>	
Inside Discrete-Event Simulation Software: How It Works and Why It Matters	101
<i>Thomas J. Schriber and Daniel T. Brunner</i>	
Verification and Validation of Simulation Models	112
<i>Robert G. Sargent</i>	
Defense and Homeland Security Applications of Multi-Agent Simulations.....	126
<i>Thomas W. Lucas, Susan M. Sanchez, Lisa R. Sickinger, Felix Martinez and Jonathan W. Roginski</i>	
Statistical Analysis of Simulation Output: State of the Art	138
<i>Christos Alexopoulos</i>	
Recent Advances in Ranking and Selection	150
<i>Seong-Hee Kim and Barry L. Nelson</i>	

Real Options Valuation.....	161
<i>Barry R. Cobb and John M. Charnes</i>	
Regression Models and Experimental Designs: a Tutorial for Simulation Analysts.....	171
<i>Jack P.C. Kleijnen</i>	
Making Sure You Tackle the Right Problem: Linking Hard and Soft Methods in Simulation Practice	183
<i>Michael Pidd</i>	
Enterprise Simulation - a Practical Application in Business Planning.....	193
<i>Robert Suggs and Brian Lewis</i>	
The Simulation Power of Automod.....	198
<i>Todd LeBaron and Craig Jacobsen</i>	
Simulation Implements Demand-Driven Workforce Scheduler for Service Industry	207
<i>Marcelo Zottolo, Edward J. Williams and Onur M. Ulgen</i>	
Extendsim 7.....	214
<i>David Krahl</i>	
Simulation 101 Software: Workshop and Beyond.....	221
<i>Barry Lawson and Lawrence Leemis</i>	
A Researcher's Discipline	225
<i>Ray J Paul</i>	
Clinic: Aggregating Subsystem Models Into an Automotive Total Plant Throughput Model	229
<i>Jeffrey Scott Miller, Randy Combs, D.J. Medeiros, Earnest Foster, Jeffrey Tew and Onur Ulgen</i>	
Clinic: Correlated Inputs in an Automotive Paint Shop Fire Risk Simulation.....	238
<i>Debra Elkins, Bahar Biller, A. Christine LaFleur, Earnest Foster, Jeffrey Tew and James R. Wilson</i>	
Human Terrain Data - What Should We Do With It?	248
<i>Barry G. Silverman</i>	
Monte Carlo Methods in the Physical Sciences.....	254
<i>Malvin H. Kalos</i>	
Game-Theoretic Probability and Defensive Forecasting	260
<i>Glenn Shafer</i>	
Controlled Sequential Bifurcation for Software Reliability Study	269
<i>Jun Xu, Feng Yang and Hong Wan</i>	
New Greedy Myopic and Existing Asymptotic Sequential Selection Procedures: Preliminary Empirical Results	277
<i>Stephen E. Chick, Jurgen Branke and Christian Schmidt</i>	
A Tournament Framework for the Ranking and Selection Problem	285
<i>Enver Yucesan</i>	

Low Bias Integrated Path Estimators.....	291
<i>James M. Calvin</i>	
Replicated Batch Means for Steady-State Simulations With Initial Transients.....	296
<i>Christos Alexopoulos, Sigrun Andradottir, Nilay Tanik Argon and David Goldsman</i>	
Finite-Sample Performance Guarantees for One-Dimensional Stochastic Root Finding	301
<i>Samuel M. T. Ehrlichman and Shane G. Henderson</i>	
Metamodeling for Cycle Time-Throughput-Product Mix Surfaces Using Progressive Model Fitting.....	310
<i>Feng Yang, Jingang Liu, Mustafa Tongarlak, Bruce E. Ankenman and Barry L. Nelson</i>	
Subset Selection and Optimization for Selecting Binomial Systems Applied to Supersaturated Design Generation	319
<i>Ning Zheng and Theodore T. Allen</i>	
Determining Efficient Simulation Run Lengths for Real Time Decision Making	328
<i>Russell Cheng</i>	
Stochastic Trust Region Gradient-Free Method (Strong) - a New Response-Surface-Based Algorithm in Simulation Optimization.....	334
<i>Kuo-Hao Chang, L. Jeff Hong and Hong Wan</i>	
Kriging Metamodeling in Constrained Simulation Optimization: an Explorative Study.....	343
<i>William E. Biles, Jack P. C. Kleijnen, Wim C. M. van Beers and Inneke van Nieuwenhuyse</i>	
Importance Sampling of Compounding Processes	351
<i>Jose Blanchet and Bert Zwart</i>	
Path-Sampling for State-Dependent Importance Sampling.....	359
<i>Jose H. Blanchet and Jingchen Liu</i>	
Efficient Suboptimal Rare-Event Simulation.....	368
<i>Xiaowei Zhang, Jose Blanchet and Peter W. Glynn</i>	
Rare-Event Simulation for a Multidimensional Random Walk With T Distributed Increments	374
<i>Jose H. Blanchet and Jingchen Liu</i>	
Estimating the Probability of a Rare Event Over a Finite Time Horizon	382
<i>Pieter-Tjerk de Boer, Pierre L'Ecuyer, Gerardo Rubino and Bruno Tuffin</i>	
Ant-Based Approach for Determining the Change of Measure in Importance Sampling.....	391
<i>Poul E. Heegaard and Werner Sandmann</i>	
Sequential Sampling for Solving Stochastic Programs	400
<i>Guzin Bayraksan and David P. Morton</i>	
Non-Linear Control Variates for Regenerative Steady-State Simulation	409
<i>Sujin Kim and Shane G. Henderson</i>	
Implications of Heavy Tails on Simulation-Based Ordinal Optimization	418
<i>Mark Broadie, Minsup Han and Assaf Zeevi</i>	

Confidence Interval Estimation Using Linear Combinations of Overlapping Variance Estimators	427
<i>Tuba Aktaran-Kalayci, David Goldsman and James R. Wilson</i>	
Folded Standardized Time Series Area Variance Estimators for Simulation.....	434
<i>Claudia Antonini, Christos Alexopoulos, David Goldsman and James R. Wilson</i>	
Sbatch: a Spaced Batch Means Procedure for Simulation Analysis	442
<i>Emily K. Lada and James R. Wilson</i>	
A Method for Fast Generation of Bivariate Poisson Random Vectors.....	451
<i>Kaeyoung Shin and Raghu Pasupathy</i>	
Classification Analysis for Simulation of Machine Breakdowns.....	459
<i>Lanting Lu, Russell C.H. Cheng, Christine S.M. Currie and John Ladbrook</i>	
Analysis and Generation of Random Vectors With Copulas.....	467
<i>Johann Christoph Strelen and Feras Nassaj</i>	
Extension of the Direct Optimization Algorithm for Noisy Functions.....	476
<i>Geng Deng and Michael C. Ferris</i>	
Automating Des Output Analysis: How Many Replications to Run	484
<i>Kathryn Hoad, Stewart Robinson and Ruth Davies</i>	
Finding the Pareto Set for Multi-Objective Simulation Models By Minimization of Expected Opportunity Cost	492
<i>Loo Hay Lee, Ek Peng Chew and Suyan Teng</i>	
Ranking and Selection Techniques With Overlapping Variance Estimators	501
<i>Christopher Healey, David Goldsman and Seong-Hee Kim</i>	
Single-Stage Multiple-Comparison Procedure for Quantiles and Other Parameters.....	509
<i>Marvin K. Nakayama</i>	
Indifference-Zone Subset Selection Procedures: Using Sample Means to Improve Efficiency	514
<i>E. Jack Chen</i>	
A Bayesian Approach to Analysis of Limit Standards	523
<i>Roy R. Creasey, Jr. and K. Preston White, Jr.</i>	
Mathematical Programming-Based Perturbation Analysis for Gi/G/1 Queues.....	532
<i>He Zhang and Wai Kin (Victor) Chan</i>	
Derivative Estimation With Known Control-Variate Variances	539
<i>Jamie R. Wieland and Bruce W. Schmeiser</i>	
Symbiotic Simulation for Business Process Re-Engineering in High-Tech Manufacturing and Service Networks	547
<i>Malcolm Y. H. Low, Stephen J. Turner, Ding Ling, Hai L. Peng, Peter Lendermann, Lai P. Chan and Steve Buckley</i>	
Optimizing Time Warp Simulation With Reinforcement Learning Techniques.....	556
<i>Jun Wang and Carl Tropper</i>	

An Efficient Algorithm in the HLA Time Management	564
<i>Buquan Liu, Yiping Yao and Huaimin Wang</i>	
The Siso CSPI Pdg Standard for Commercial Off-The-Shelf Simulation Package Interoperability Reference Models	573
<i>Simon J. E. Taylor, Navonil Mustafee, Stephen J. Turner, Malcolm Y. H. Low, Steffen Strassburger and John Ladbrook</i>	
Applying CSPI Reference Models for Factory Planning	582
<i>Steffen Strassburger, Thomas Schulze and Marco Lemessi</i>	
User-Friendly Scheduling Tools for Large-Scale Simulation Experiments.....	589
<i>Heath A. James, Ken A. Hawick and Chris J. Scogings</i>	
Semantics of Petri Nets: a Comparison	596
<i>Gabriel Juhas, Fedor Lehocki and Robert Lorenz</i>	
Duality in High Level Petri-Nets - a Basis to Do Diagnoses.....	608
<i>Jorg R. Muller and Eckehard Schnieder</i>	
How to Synthesize Nets From Languages - a Survey	616
<i>Robert Lorenz, Sebastian Mauser and Gabriel Juhas</i>	
Automatic Generation of Simulation Models for Semiconductor Manufacturing	627
<i>Ralph Mueller, Christos Alexopoulos and Leon F. McGinnis</i>	
Transformations for Accelerating MCMC Simulations With Broken Ergodicity	637
<i>Mark Fleischer</i>	
Alternative Thread Scoring Methods in Qualitative Event Graphs	646
<i>Ricki G. Ingalls and Douglas J. Morrice</i>	
Optimistic Parallel Discrete Event Simulation of the Event-Based Transmission Line Matrix Method.....	655
<i>David W. Bauer Jr. and Ernest H. Page</i>	
A Co-Design Modeling Approach for Computer Network Systems	664
<i>Weilong Hu and Hessam S. Sarjoughian</i>	
Composability and Component-Based Discrete Event Simulation	673
<i>Arnold Buss and Curtis Blais</i>	
Visual Exploration and Evaluation of Climate-Related Simulation Data	682
<i>Thomas Nocke, Michael Flechsig and Uwe Bohm</i>	
Simvis: Interactive Visual Analysis of Large and Time-Dependent 3D Simulation Data	691
<i>Helmut Doleisch</i>	
Towards a Conceptual Framework for Visual Analytics of Time and Time-Oriented Data.....	700
<i>Wolfgang Aigner, Alessio Bertone, Silvia Miksch, Christian Tominski and Heidrun Schumann</i>	
Visualization Techniques Utilizing the Sensitivity Analysis of Models.....	709
<i>Ivo Kondapaneni, Pavel Kordik and Pavel Slavik</i>	

Visualization of Users' Activities in a Specific Environment.....	717
<i>Zdenek Mikovec, Ivo Maly, Pavel Slavik and Jan Curin</i>	
A Trace-Based Visual Inspection Technique to Detect Errors in Simulation Models.....	726
<i>Peter Kemper</i>	
Code Analysis and CS-XML.....	735
<i>Kara A. Olson, C. Michael Overstreet and E. Joseph Derrick</i>	
Empirical Investigations of Conceptual Modeling and the Modeling Process.....	741
<i>Wang Wang and Roger J. Brooks</i>	
Organising Insights Into Simulation Practice.....	750
<i>Michael Pidd and Stewart Robinson</i>	
Guiding Principles for Conceptual Model Creation in Manufacturing Simulation	755
<i>Durk-Jouke Van der Zee and Jack G.A.J. Van der Vorst</i>	
Domain Specific Model Constructs in Commercial Simulation Environments.....	764
<i>Edwin C. Valentin and Alexander Verbraeck</i>	
System and Simulation Modeling Using Sysml.....	775
<i>Edward Huang, Randeep Ramamurthy and Leon F. McGinnis</i>	
Building Composable Bridges Between the Conceptual Space and the Implementation Space.....	783
<i>Paul Gustavson and Tram Chase</i>	
Composing Simulation Models Using Interface Definitions Based on Web Service Descriptions	794
<i>Mathias Rohl and Stefan Morgenstern</i>	
Requirements and Design Principles for Multisimulation With Multiresolution, Multistage Multimodels	802
<i>Levent Yilmaz, Alvin Lim, Simon Bowen and Tuncer Oren</i>	
Exploiting Web Service Techniques for Composing Simulation Models	812
<i>Mathias Rohl, Florian Marquardt and Adelinde M. Uhrmacher</i>	
Model-Based Alignment and Orchestration of Heterogeneous Homeland Security Applications Enabling Composition of System of Systems.....	821
<i>Andreas Tolk, Charles Turnitsa and Saikou Diallo</i>	
A Metamodel-Based Representation Method for Reusable Simulation Model.....	830
<i>Yonglin Lei, Lili Song, Weiping Wang and Caiyun Jiang</i>	
Observations on New Developments in Composability and Multi-Resolution Modeling.....	838
<i>Paul K. Davis and Andreas Tolk</i>	
Combining Micro and Macro-Modeling in Devs for Computational Biology.....	850
<i>Adelinde M. Uhrmacher, Roland Ewald, Mathias John, Carsten Maus, Matthias Jeschke and Susanne Biermann</i>	
Multiscale Models of Bacterial Populations	860
<i>Michael Lees, Brian Logan and John King</i>	

Using Flexible Points in a Developing Simulation of Selective Dissolution in Alloys	870
<i>Joseph C. Carnahan, Erin C. Carson, Paul F. Reynolds, Jr., Steven A. Policastro and Robert G. Kelly</i>	
Agile Optimization for Coercion	879
<i>Lingjia Tang and Paul F. Reynolds, Jr.</i>	
Simulation Metamodels for Modeling Output Distribution Parameters.....	889
<i>Isabel R. Santos and Pedro R. Santos</i>	
Monte Carlo Simulation in Financial Engineering.....	898
<i>Nan Chen and L. Jeff Hong</i>	
Sensitivity Estimates From Characteristic Functions	911
<i>Paul Glasserman and Zongjian Liu</i>	
Kernel Estimation for Quantile Sensitivities.....	920
<i>Guangwu Liu and L. Jeff Hong</i>	
A Confidence Interval for Tail Conditional Expectation Via Two-Level Simulation	928
<i>Hai Lan, Barry L. Nelson and Jeremy Staum</i>	
Efficient Monte Carlo Methods for Convex Risk Measures in Portfolio Credit Risk Models.....	937
<i>Jorn Dunkel and Stefan Weber</i>	
Estimating Tranche Spreads By Loss Process Simulation.....	946
<i>Kay Giesecke and Baeho Kim</i>	
Approximations and Control Variates for Pricing Portfolio Credit Derivatives.....	955
<i>Zhiyong Chen and Paul Glasserman</i>	
Efficient Estimation of Option Price and Price Sensitivities Via Structured Database	
Monte Carlo (SDMC).....	963
<i>Gang Zhao, Tarik Borogovac and Pirooz Vakili</i>	
American Option Pricing Under Stochastic Volatility: a Simulation-Based Approach.....	971
<i>Arunachalam Chockalingam and Kumar Muthuraman</i>	
Monte Carlo Methods for Valuation of Ratchet Equity Indexed Annuities.....	977
<i>Ming-hua Hsieh and Yu-fen Chiu</i>	
Non-Gaussian Asset Allocation in the Federal Thrift Savings Plan.....	983
<i>Scott T. Nestler</i>	
Path-Wise Estimators and Cross-Path Regressions: an Application to Evaluating	
Portfolio Strategies	992
<i>Martin B. Haugh and Ashish Jain</i>	
An Empirical Comparison Between Nonlinear Programming Optimization and	
Simulated Annealing (SA) Algorithm Under a Higher Moments Bayesian Portfolio	
Selection Framework.....	1000
<i>Jingjing Lu and Merrill Liechty</i>	
Enabling Industrial Scale Simulation / Emulation Models.....	1007
<i>Michael Johnstone, Doug Creighton and Saeid Nahavandi</i>	

Generic Simulation of Automotive Assembly for Interoperability Testing.....	1014
<i>Deogratias Kibira and Charles R. McLean</i>	
Distributed Simulation for Interoperability Testing Along the Supply Chain	1023
<i>Sanjay Jain, Frank Riddick, Andreas Craens and Deogratias Kibira</i>	
Panel: Distributed Simulation in Industry - a Real-World Necessity Or Ivory Tower Fancy?.....	1032
<i>Peter Lendermann, Leon F. McGinnis, Steffen Straburger, Matthias U. Heinicke, Charles McLean and Simon J.E. Taylor</i>	
Representation and Simulation of Stochastic Petrinet Models Using Xpnml	1042
<i>Hyunsoo Lee, Bikram Sharda and Amarnath Banerjee</i>	
Simulation-Based, Ontology Driven Resource Plan Development.....	1051
<i>Michael Graul, Perakath Benjamin, Arthur Keen and Frank Boydston</i>	
Using Ontologies for Simulation Integration	1060
<i>Perakath Benjamin, Kumar Akella and Ajay Verma</i>	
Using Meta-Level Ontology Relations to Measure Conceptual Alignment and Interoperability of Simulation Models.....	1069
<i>Levent Yilmaz</i>	
Conceptual Modeling of Information Exchange Requirements Based on Ontological Means.....	1079
<i>Andreas Tolk and Charles D. Turnitsa</i>	
From Domain Ontologies to Modeling Ontologies to Executable Simulation Models.....	1087
<i>Gregory A. Silver, Osama Al-Haj Hassan and John A. Miller</i>	
NGfast: a Simulation Model for Rapid Assessment of Impacts of Natural Gas Pipeline Breaks and Flow Reductions At U.S. State Borders and Import Points.....	1097
<i>Edgar C. Portante, Brian A. Craig and Stephen M. Folga</i>	
System Implementation Issues of Dynamic Discrete Disaster Decision Simulation System (D4S2) - Phase I	1106
<i>Shengnan Wu, Larry J. Shuman, Bopaya Bidanda, Matthew Kelley, Bryan Lawson, Ken Sochats and Carey D. Balaban</i>	
Simulation of Time to First Water Application for the First Interstate Bank Fire	1114
<i>Robert Till</i>	
Hospital Capacity Planning for Efficient Disaster Mitigation During a Bioterrorist Attack	1118
<i>Jomon Aliyas Paul and Govind Hariharan</i>	
Allocation of Resources for Hospital Evacuations Via Simulation	1127
<i>Esengul Tayfur and Kevin Taaffe</i>	
Modeling Bioterrorism Preparedness With Simulation in Rural Healthcare System.....	1134
<i>Lisa Patvivatsiri, Elliot J. Montes, Jr. and Ouyang Xi</i>	
Comparision of Potential Paths Selected By a Malicious Entity With Hazardous Materials : Minimization of Time Vs. Minimization of Distance.....	1140
<i>Rakesh Nune and Pamela Murray-Tuite</i>	
An Initial Simulation Model for Aiding Policy Analysis in Urban Insurgencies	1147
<i>Edward G. Anderson Jr.</i>	

A Public Health Application of Data Analysis for Homeland Security	1156
<i>Marjorie Greene and Robert Eek</i>	
Cyber Attack Modeling and Simulation for Network Security Analysis.....	1159
<i>Michael E. Kuhl, Jason Kistner, Kevin Costantini and Moises Sudit</i>	
Hierarchical Planning and Multi-Level Scheduling for Simulation-Based Probabilistic Risk Assessment.....	1168
<i>Hamed S. Nejad, Dongfeng Zhu and Ali Mosleh</i>	
The Range of Predictions for Calibrated Agent-Based Simulation Models	1177
<i>DongFang Shi and Roger J. Brooks</i>	
Upgraded Cellular Automata Based Group-Work Interaction Simulation.....	1186
<i>Dong Shengping and Hu Bin</i>	
Spatial Emergence of Genotypical Tribes in an Animat Simulation Model.....	1195
<i>Ken A. Hawick, Chris J. Scogings and Heath A. James</i>	
Agent-Model Validation Based on Historical Data	1202
<i>Lance E. Champagne and Raymond R. Hill</i>	
An Exploration-Based Taxonomy for Emergent Behavior Analysis in Simulations	1211
<i>Ross Gore and Paul F. Reynolds, Jr.</i>	
Modeling Organizational Adaptation: a Replication of Levinthal's Model of Emergent Order	1220
<i>Brian F. Tivna</i>	
Panel: Agent-Based Modeling of Mass Egress and Evacuations.....	1226
<i>Douglas A. Samuelson, Austin Zimmerman, Joshua Thorp, Pat McCormick, Matt Parker, Stephen Guerin, Owen Densmore and Tom McCormick</i>	
Simulation of Passenger Check-In At a Medium-Sized Us Airport.....	1231
<i>Simone Appelt, Rajan Batta, Li Lin and Colin Drury</i>	
Advanced National Airspace Traffic Flow Management Simulation Experiments and Vlidation	1240
<i>George Hunter, Ben Boisvert and Kris Ramamoorthy</i>	
IRS Post-Filing Processes Simulation Modeling: a Comparison of DES With Econometric Microsimulation in Tax Administration.....	1247
<i>Arnold Greenland, Erica Layne Morrison, David Connors, John L. Guyton and Michael Sebastiani</i>	
Agent-Based Modeling and Simulation of Wildland Fire Suppression	1254
<i>Xiaolin Hu and Yi Sun</i>	
Modeling and Simulation of Group Behavior in E-Government Implementation	1263
<i>Jiang Wu and Bin Hu</i>	
Emergency Departments Nurse Allocation to Face a Pandemic Influenza Outbreak.....	1271
<i>Florentino Rico, Ehsan Salari and Grisselle Centeno</i>	
Military Keynote Address.....	1278
<i>John C. Deal</i>	

Validating a Network Simulation Testbed for Army Uavs.....	1279
<i>Stephen Hamilton, Colonel Timothy Schmoyer and J. A. "Drew" Hamilton, Jr.</i>	
Simulation-Aided Path Planning of Uav.....	1285
<i>Farzad Kamrani and Rassul Ayani</i>	
Self Organized Uav Swarm Planning Optimization for Search and Destroy Using Swarmfare Simulation.....	1294
<i>Dustin J. Nowak, Ian Price and Gary B. Lamont</i>	
Simulation of Army Unmanned Aerial Vehicle Communications	1303
<i>Richard Chapman, Drew Hamilton, Daniel Box, Mark Kuhr, Jonathan MacDonald and Stephen Hamilton</i>	
Applying Parallel and Distributed Simulation to Remote Network Emulation.....	1307
<i>Yan Gu and Richard Fujimoto</i>	
Application of Bml to Inter-Agent Communication in the Itsimbw Simulation Environment	1316
<i>Philipp Hugelmeyer, Ulrich Schade and Thomas Zoller</i>	
Using a Low-Resolution Entity Model for Shaping Initial Conditions for Highresolution Combat Models.....	1323
<i>Darryl Ahner, Arnold Buss and John Ruck</i>	
Model-Based Measurement of Situation Awareness	1332
<i>W. Scott Neal Reilly, Sean L. Guarino and Bret Kellihan</i>	
A Simulation Model for Military Deployment.....	1340
<i>Ugur Z. Yildirim, Ihsan Sabuncuoglu and Barbaros Tansel</i>	
Analyzing Air Combat Simulation Results With Dynamic Bayesian Networks.....	1349
<i>Jirka Poropudas and Kai Virtanen</i>	
Integration of Underwater Sonar Simulation With a Geographical Information System	1357
<i>Yanshen Zhu, Serge Sala-Diakanda, Luis Rabelo, Jose Sepulveda and Maria Bull</i>	
Using Discrete Event Simulation to Examine Marine Training At the Marine Corps Communication-Electronics School.....	1366
<i>Jon Davenport, Charles Neu, William Smith and Susan Heath</i>	
A Knowledge-Based Method for the Validation of Military Simulation	1374
<i>Feiyan Min, Ping Ma and Ming Yang</i>	
Blending Systems Engineering Principles and Simulation-Based Design Techniques to Facilitate Military Prototype Development.....	1382
<i>Stephanie J. Lackey, Jonathan T. Harris, Linda C. Malone and Denise M. Nicholson</i>	
Feasibility Study of Variance Reduction in the Logistics Composite Model.....	1389
<i>George P. Cole, III, Alan W. Johnson and J. O. Miller</i>	
A Simulation Framework for Energy Efficient Data Grids.....	1396
<i>Ziliang Zong, Xiao Qin, Xiaojun Ruan, Kiranmai Bellam, Yiming Yang and Adam Manzanares</i>	
An Elliptical Cryptographic Algorithm for Rf Wireless Devices.....	1403
<i>Robert Steven Owor, Khalil Dajani, Zephyrinus Okonkwo and John Hamilton</i>	

Real-Time Prediction in a Stochastic Domain Via Similarity-Based Data-Mining	1409
<i>Timo Steffens, Philipp Hugelmeyer and Schloss Birlinghoven</i>	
Tutorial: Advances and Challenges in Healthcare Simulation Modeling.....	1415
<i>Sally C. Brailsford</i>	
Can Health Care Benefit From Modeling and Simulation Methods in the Same Way As Business and Manufacturing Has?	1428
<i>Jasna Kuljis, Ray J. Pau and Lampros K. Stergioulas</i>	
Towards a Framework for Healthcare Simulation	1433
<i>Tillal Eldabi and Terry Young</i>	
Interconnected Des Models of Emergency, Outpatient, and Inpatient Departments of a Hospital	1440
<i>Murat M. Gunal and Michael Pidd</i>	
A Discrete Event Model of Clinical Trial Enrollment At Eli Lilly and Company	1446
<i>Bernard M. McGarvey, Nancy J. Dynes, Burch C. Lin, Wesley H. Anderson, James P. Kremidas and James C. Felli</i>	
Important Factors in Screening for Colorectal Cancer	1454
<i>Reza Yaesoubi and Stephen D. Roberts</i>	
Roles for Autonomous Physiologic Agents; an Oxygen Supply and Demand Example.....	1462
<i>Meyer Katzper</i>	
Targeted Strategies for Tuberculosis in Areas of High Hiv Prevalence: a Simulation Study	1466
<i>Georgina R. Mellor, Elizabeth L. Corbett, Christine S.M. Currie and Russell C.H. Cheng</i>	
Improving Primary Care Access Using Simulation Optimization	1473
<i>Hari Balasubramanian, Ritesh Banerjee, Melissa Gregg and Brian T. Denton</i>	
An Approach to Hospital Planning and Design Using Discrete Event Simulation	1480
<i>Ian W. Gibson</i>	
Bi-Criteria Evaluation of an Outpatient Procedure Center Via Simulation	1489
<i>Todd R. Huschka, Brian T. Denton, Serhat Gul and John W. Fowler</i>	
“See and Treat” or “See” and “Treat” in an Emergency Department.....	1498
<i>Ruth Davies</i>	
Modeling of Patient Flows in a Large-Scale Outpatient Hospital Ward By Making Use of Electronic Medical Records.....	1502
<i>Soemon Takakuwa and Daisuke Katagiri</i>	
A Hybrid Epidemic Model: Combining the Advantages of Agent-Based and Equation-Based Approaches.....	1511
<i>Georgiy V. Bobashev, D. Michael Goedecke, Feng Yu and Joshua M. Epstein</i>	
A Stochastic Equation-Based Model of the Value of International Air-Travel Restrictions for Controlling Pandemic Flu.....	1517
<i>D. Michael Goedecke, Georgiy V. Bobashev and Feng Yu</i>	
A Flexible, Large-Scale, Distributed Agent Based Epidemic Model.....	1522
<i>Jon Parker</i>	

Simulating Pandemic Influenza Risks of Us Cities.....	1527
<i>Catherine Dibble, Stephen Wendel and Kristofor Carle</i>	
A Teragrid-Enabled Distributed Discrete Event Agent-Based Epidemiological Simulation.....	1530
<i>Douglas J. Roberts and Diglio A. Simoni</i>	
Utilizing Model Characteristics to Obtain Efficient Parallelization in the Context of Agent Based Epidemiological Models	1534
<i>Steven Naron and Segev Wasserkrug</i>	
Simulating the Patient Move: Transitioning to a Replacement Hospital	1541
<i>Marshall Ashby, Martin Miller, David Ferrin and Tanner Flynn</i>	
Maximizing Hospital Financial Impact and Emergency Department Throughput With Simulation	1545
<i>David M. Ferrin, Marty J. Miller and Diana L. McBroom</i>	
Merging Six Emergency Departments Into One: a Simulation Approach.....	1553
<i>Martin Miller, David Ferrin, Marshall Ashby, Tanner Flynn and Niloo Shahi</i>	
Comparing Simulation Alternatives Based on Quality Expectations	1558
<i>Joshua Bosire, Shengyong Wang, Tejas Gandhi and Krishnaswami Srihari</i>	
Effect of Coupling Between Emergency Department and Inpatient Unit on the Overcrowding in Emergency Department	1565
<i>Erik M. W. Kolb, Taesik Lee and Jordan Peck</i>	
Manufacturing Process Management Using a Flexible Modeling and Simulation Approach.....	1573
<i>Duilio Curcio, Francesco Longo and Giovanni Mirabelli</i>	
Application of Design of Experiments on the Simulation of a Process in an Automotive Industry	1580
<i>Jose Arnaldo Barra Montevechi, Alexandre Ferreira de Pinho, Fabiano Leal and Fernando Augusto Silva Marins</i>	
Productivity Improvement in Appliance Manufacturing	1589
<i>Charles Harrell and Bruce Gladwin</i>	
Using Multi-Criteria Modeling and Simulation to Achieve Lean Goals.....	1594
<i>Gerald W. Evans and Suraj M. Alexander</i>	
"Pull" Replenishment Performance As a Function of Demand Rates and Setup Times Under Optimal Settings	1603
<i>Silvanus T. Enns</i>	
Measuring Manufacturing Throughput Using Takt Time Analysis and Simulation	1612
<i>Jun Duanmu and Kevin Taaffe</i>	
Modeling and Simulation of Hard Disk Drive Final Assembly Using a Hdd Template.....	1620
<i>Ahad Ali and Robert de Souza</i>	
Evaluation of Operational Policies in the Design Phase of Material Handling Networks.....	1630
<i>Ardavan Asef-Vaziri</i>	

Simulation of Continuous Behavior Using Discrete Tools: Ore Conveyor Transport	1634
<i>Marcelo Moretti Fioroni, Luiz Augusto G. Franzese, Caio Eduardo Zanin, Jose Furia, Luciano de Toledo Perfetti, Donizeti Leonardo and Nilson Laudelino da Silva</i>	
Establishing Man-Machine Ratio Using Simulation	1642
<i>Hoay Hoon Ong</i>	
Aintshop Production Line Optimization Using Response Surface Methodology	1646
<i>Berna Dengiz and Onder Belgin</i>	
A Test Implementation of the Core Manufacturing Simulation Data Specification	1652
<i>Marcus Johansson, Bjorn Johansson, Anders Skoogh, Swee Leong, Frank Riddick, Y. Tina Lee, Guodong Shao and Par Klingstam</i>	
Modeling and Simulation of Retrieving Process.....	1661
<i>Shih Y. Chin and Jose H. C. G. Junior</i>	
Determining Safety Stocks in the Presence of Workload-Dependent Lead Times	1670
<i>Seza Orcun, Sila Cetinkaya and Reha Uzsoy</i>	
A Hybrid Inventory Control System Approach Applied to the Food Industry	1678
<i>David Claudio, Jie Zhang and Ying Zhang</i>	
Improved Simple Simulation Models for Semiconductor Wafer Factories	1687
<i>Oliver Rose</i>	
Simulation Framework for Complex Manufacturing Systems With Automated Material Handling	1692
<i>Rene Driessel and Lars Monch</i>	
Using Quantiles in Ranking and Selection Procedures	1701
<i>Jennifer M. Bekki, John W. Fowler, Gerald T. Mackulak and Barry L. Nelson</i>	
Application of Combined Discrete-Event Simulation and Optimization Models in Semiconductor Enterprise Manufacturing Systems.....	1708
<i>Gary Godding, Hessam Sarjoughian and Karl Kempf</i>	
Simulation Experimental Investigation on Job Release Control in Semiconductor Wafer Fabrication	1716
<i>Chao Qi, Appa Iyer Sivakumar and Stanley B. Gershwin</i>	
Sensitivity Analysis on Causal Events of Wip Bubbles By a Log-Driven Simulator	1726
<i>Ryo Hirade, Rudy Raymond and Hiroyuki Okano</i>	
Predicting Cluster Tool Behavior With Slow Down Factors	1734
<i>Robert Unbehauen and Oliver Rose</i>	
An Analysis of Tool Capabilities in the Photolithography Area of an Asic Fab	1740
<i>P. J. Byrne, Cathal Heavey and Kamil Erkan Kabak</i>	
Simulation Results and Formalism for Global-Local Scheduling in Semiconductor Manufacturing Facilities.....	1747
<i>Mickael Bureau, Stephane Dauzere-Peres, Claude Yugma, Leon Vermarien and Jean-Bernard Maria</i>	

Hierarchical Distributed Simulation for 300mm Wafer Fab.....	1753
<i>Sheng Xu and Leon F. McGinnis</i>	
Survey of Research in Modeling Conveyor-Based Automated Material Handling Systems in Wafer fabs.....	1760
<i>Dima Nazzal and Ahmed El-Nashar</i>	
Reusable Tool for 300mm Intrabay Amhs Modeling and Simulation	1768
<i>Ahmed El-Nashar and Khaled S. El-Kilany</i>	
A Simulation-Based Framework for Quantifying the Cold Regions Weather Impacts on Construction Schedules.....	1777
<i>Adham Shahin, Simaan AbouRizk, Yasser Mohamed and Siri Fernando</i>	
Simulation Assisted Match-Up Rescheduling of Flexible Production Systems Subject to Execution Exceptions	1784
<i>Wilhelm Dangelmaier, Kiran R. Mahajan, Mark Aufenanger and Thomas Seeger</i>	
Reflective Simulation for On-Line Workload Planning and Control.....	1793
<i>Roberto Revetria and Flavio Tonelli</i>	
Stochastic Rollout and Justification to Solve the Resource-Constrained Project Scheduling Problem.....	1799
<i>Ningxiong Xu, Linda Nozick, Orr Bernstein and Dean Jones</i>	
Online Multiobjective Single Machine Dynamic Scheduling With Sequence-Dependent Setups Using Simulation-Based Genetic Algorithm With Desirability Function.....	1807
<i>Adeline T. H. Ang and Appa Iyer Sivakumar</i>	
A Metaheuristic Algorithm for Simultaneous Simulation Optimization and Applications to Traveling Salesman and Job Shop Scheduling With Due Dates	1814
<i>George Jiri Mejtsky</i>	
A Web-Based Simulation Optimization System for Industrial Scheduling.....	1823
<i>Marcus Andersson, Henrik Grimm, Anna Persson and Amos Ng</i>	
Modeling and Simulation for Customer Driven Manufacturing System Design and Operations Planning.....	1832
<i>Juhani Heilala, Arttu Salmela, Jari Montonen and Pasi Jarvenpaa</i>	
Simulation Improves End-Of-Line Sortation and Material Handling Pickup Scheduling At Appliance Manufacturer.....	1842
<i>Neelesh Kale, Marcelo Zottolo, Onur M. Ulgen and Edward J. Williams</i>	
An Object-Oriented Framework for Simulating Full Truckload Transportation Networks	1848
<i>Manuel D. Rossetti and Shikha Nangia</i>	
Assessing Tram Schedules Using a Library of Simulation Components.....	1857
<i>Elisangela Mieko Kanacilo and Alexander Verbraeck</i>	
Supply Chain Simulation Modeling Made Easy: an Innovative Approach.....	1866
<i>Dayana Cope, Mohamed Sam Fayed, Mansooreh Mollaghaseemi and Assem Kaylani</i>	
Simulating Air Traffic Blockage Due to Convective Weather Conditions	1876
<i>Liling Ren, John-Paul B. Clarke, Dawei Chang, Senay Solak, Earl Barnes and Ellis Johnson</i>	

Towards a User-Centred Road Safety Management Method Based on Road Traffic Simulation	1884
<i>Andreas Gregoriades</i>	
Dddas-Based Multi-Fidelity Simulation for Online Preventive Maintenance Scheduling in Semiconductor Supply Chain	1894
<i>Nurcin Koyuncu, Seungho Lee, Karthik K. Vasudevan, Young-Jun Son and Parag Sarfare</i>	
A Simulation-Based Algorithm for Supply Chain Optimization.....	1903
<i>Takayuki Yoshizumi and Hiroyuki Okano</i>	
A Toolbox for Simulation-Based Optimization of Supply Chains	1911
<i>Christian Almeder and Margaretha Preusser</i>	
Ibm Supply-Chain Network Optimization Workbench: an Integrated Optimization and Simulation Tool for Supply Chain Design.....	1919
<i>Hongwei Ding, Wei Wang, Jin Dong, Minmin Qiu and Changrui Ren</i>	
Using Empirical Demand Data and Common Random Numbers in an Agent-Based Simulation of a Distribution Network.....	1926
<i>William J. Sawaya III</i>	
A Comparison of Scheduling Approaches for a Make-To-Order Electronics Manufacturer	1932
<i>Susan K. Heath and Douglas J. Morrice</i>	
Simulation of Scheduled Ordering Policies in Distribution Supply Chains	1940
<i>Lucy G. Chen and Srinagesh Gavirneni</i>	
Stability Analysis of the Supply Chain By Using Neural Networks and Genetic Algorithms	1947
<i>Alfonso Sarmiento, Luis Rabelo, Ramamoorthy Lakkju and Reinaldo Moraga</i>	
A Supply Chain Paradigm to Model Business Pprocesses At the Y-12 National Security Complex	1956
<i>Reid Kress, Jack Dixon, Tom Insalaco and Richard Rinehart</i>	
Appraisal of Airport Alternatives in Greenland By the Use of Risk Analysis and Monte Carlo Simulation.....	1965
<i>Kim Bang Salling and Steen Leleur</i>	
A Simulation Study on the Uses of Shuttle Carriers in the Container Yard.....	1973
<i>Loo Hay Lee, Ek Peng Chew, Kok Choon Tan, Huei Chuen Huang, Wenquan Lin, Yongbin Han and Tian Heong Chan</i>	
A Simulation Model With a Low Level of Detail for Container Terminals And Its Applications.....	1982
<i>Byung-Hyun Ha, Eun-Jung Park and Chan-Hee Lee</i>	
A Simulation Model to Improve Warehouse Operations.....	1991
<i>Jean Philippe Gagliardi, Jacques Renaud and Angel Ruiz</i>	
Project Planning Using an Interactive, Structured Modeling Environment.....	1998
<i>Ian Flood</i>	
A Message-Based Architechture to Enable Runtime User Interaction on Concurrent Simulation-Animations of Construction Operations.....	2007
<i>Prasant V. Rekapalli and Julio C. Martinez</i>	

Ontology-Centered Integration of Project Management, Cost and Resource Modeling With Analysis, Simulation and Visualization: a Case Study of Space Port Operations	2011
<i>Paul Fishwick, Zach Ezzel, Nabeel Yousef, David J. Miranda, Haluk Akin, Luis C. Rabelo and Jose Sepulveda</i>	
Expecting the Unexpected: Representing, Reasoning About, and Assessing Construction Project Contingencies.....	2020
<i>G. Ryan Anderson, Nilufer Onder and Amlan Mukherjee</i>	
Agent-Based Simulation for Collaborative Cranes	2030
<i>Cheng Zhang and Amin Hammad</i>	
Communication and Process Simulation of Set-Based Design for Concrete Reinforcement.....	2036
<i>John-Michael Wong, Kristen Parrish, Iris D. Tommelein and Bozidar Stojadinovic</i>	
Process Flowcharting and Simulation of House Structure Components Production Process	2045
<i>Haitao Yu, Mohamed Al-Hussein and Reza Nasseri</i>	
Construction Noise Prediction and Barrier Optimization Using Special Purpose Simulation	2052
<i>Anupama Gannoruwa and Janaka Y. Ruwanpura</i>	
Modeling and Representation of Non-Value Adding Activities Due to Errors and Changes in Design and Construction Projects.....	2061
<i>Sangwon Han, SangHyun Lee, Mani Golparvar Fard and Feniosky Pena-Mora</i>	
Special Purpose Simulation Template for Workflow Analysis in Construction	2069
<i>Sivakumar Palaniappan, Anil Sawhney, Howard H. Bashford and Kenneth D. Walsh</i>	
Simulation Tool for Manpower Forecast Loading and Resource Leveling.....	2078
<i>Mikhail Hanna and Janaka Y. Ruwanpura</i>	
Simulation-Based Planning for Precast Production With Two Critical Resources.....	2083
<i>Xiaofeng Zhai, Robert L. K. Tiong, Hans C. Bjornsson and David K. H. Chua</i>	
Permutation-Based Elitist Genetic Algorithm Using Serial Scheme for Large-Sized Resource-Constrained Project Scheduling.....	2091
<i>Jin-Lee Kim</i>	
Program Planning Under Uncertainty	2098
<i>Kabeh Vaziri, Paul Carr and Linda Nozick</i>	
Simulation and Uncertainty Modeling of Project Schedules Estimates.....	2107
<i>Ivan Ourdev, Simaan Abourizk and Mohammed Al-Bataineh</i>	
Qualitative Simulation of Construction Performance Using Fuzzy Cognitive Maps	2113
<i>Manjula Dissanayake and Simaan M. AbouRizk</i>	
Optimal Work Breaks in Deterministic and Probabilistic Repetitive Projects.....	2120
<i>Photios G. Ioannou and Chachrist Srisuwanrat</i>	
Optimal Scheduling of Probabilistic Repetitive Projects Using Completed Unit and Genetic Algorithms.....	2130
<i>Chachrist Srisuwanrat and Photios G. Ioannou</i>	

Flexible Modeling of Linear Schedules for Integrated Mathematical Analysis.....	2138
<i>Gunnar Lucko</i>	
Enabling Smooth and Scalable Dynamic 3d Visualization of Discrete-Event Construction Simulations in Outdoor Augmented Reality	2147
<i>Amir H. Behzadan and Vineet R. Kamat</i>	
Validation of Simulated Real World Tep Stacks.....	2156
<i>Sam Jansen and Anthony McGregor</i>	
Effective Workforce Lifecycle Management Via System Dynamics Modeling and Simulation	2166
<i>Lianjun An, Jun-Jang Jeng, Young M Lee and Changrui Ren</i>	
Parallel Cross-Entropy Optimization.....	2175
<i>Gareth E. Evans, Jonathan M. Keith and Dirk P. Kroese</i>	
Predicting the Impact on Business Performance of Enhanced Information System Using Business Process Simulation.....	2182
<i>Yifei Tan and Soemon Takakuwa</i>	
Using Intelligent Agents to Understand Management Practices and Retail Productivity	2191
<i>Peer-Olaf Siebers, Uwe Aickelin, Helen Celia and Chris W. Clegg</i>	
Ifao-Simo: a Spatial-Simulation Based Facility Network Optimization Framework.....	2200
<i>Ming Xie, Wei Wang, Wenjun Yin</i>	
Discrete Event Simulation Modeling of Resource Planning and Service Order Execution for Service Businesses.....	2206
<i>Young M. Lee, Lianjun An, Sugato Bagchi, Daniel Connors, Shubir Kapoor, Kaan Katircioglu, Wei Wang and Jing Xu</i>	
Simulation of Adaptive Project Management Analytics	2213
<i>Lea A. Deleris, Sugato Bagchi, Shubir Kapoor, Kaan Katircioglu, Richard Lam and Steve Buckley</i>	
Agent-Based Simulations of Service Policy Decisions	2220
<i>Richard B. Lam</i>	
Using Simulation to Predict Market Behavior for Outbound Call Centers	2226
<i>Paulo J. de Freitas Filho, Geovani Ferreira da Cruz, Rui Seara and Guilherme Steinmann</i>	
Partial Cross Training in Call Centers With Uncertain Arrivals and Global Service Level Agreements.....	2231
<i>Thomas R. Robbins, Terry P. Harrison and D. J. Medeiros</i>	
A Model for Contact Center Analysis and Simulation.....	2238
<i>Juan M. Huerta</i>	
Modeling the Performance of Low Latency Queueing for Emergency Telecommunications	2245
<i>Denise M. Bevilacqua Masi, Martin J. Fischer and David A. Garbin</i>	
Using Event Simulation to Evaluate Internet Protocol Enhancements for Special Services	2255
<i>David A. Garbin, Patrick McGregor and Denise M. Bevilacqua Masi</i>	

J-Saedes: a Java-Based Simulation Software to Improve Reliability and Availability of Computer Systems and Networks.....	2264
<i>Angel A. Juan, Joan M. Marques, Javier Faulin and Mateo Sorroche</i>	
Simio: a New Simulation System Based on Intelligent Objects	2272
<i>C. Dennis Pegden</i>	
Combining Network Reductions and Simulation to Estimate Network Reliability.....	2280
<i>Abdullah Konak</i>	
Using Monte-Carlo Simulation for Automatic New Topic Identification of Search Engine Transaction Logs	2285
<i>Seda Ozmutlu, Huseyin C. Ozmutlu and Buket Buyuk</i>	
What I Wish They Would Have Taught Me (Or That I Would Have Better Remembered!) in School	2294
<i>Charles R. Standridge, David M. Ferrin, Daniel A. Finke, Carley Jurishica and Catherine M. Harmonosky</i>	
Supporting Parametrization of Business Games for Multiple Educational Settings.....	2301
<i>Stijn-Pieter van Houten and Alexander Verbraeck</i>	
Teaching Simulation to Business Students Summary of 30 Years□ Experience	2306
<i>Ingolf Stahl</i>	
High-Performance Computing Enables Simulations to Transform Education	2315
<i>Dan M. Davis, Thomas D. Gottschalk and Laurel K. Davis</i>	
Developing and Implementing a High School Simulation Course to Provide Rigor and Relevance to the Curriculum.....	2323
<i>Beverly Biel Kuch</i>	
A Simulation Course for High School Students.....	2332
<i>David Goldsman</i>	
Beyond the University: Simulation Education on the Job	2336
<i>Peter Tag and David Krahf</i>	
Economic Assessment of Energy Systems With Simulation and Linear Programming.....	2341
<i>Fermin Mallor, Cristina Azcarate and Rosa Blanco</i>	
Mathematical Models and Simulation for Project Portfolios Optimization.....	2342
<i>Rongzeng Cao, Wei Ding and Bonnie Ray</i>	
Castelldefels Project: Modeling and Simulation of the Computer System That Gives Support to the Virtual Campus of the Open University of Catalonia.....	2343
<i>Angel A. Juan, Javier Faulin, Joan M. Marques and Pau Fonseca</i>	
Comparison of On-Line Scheduling Algorithms: Quantifying the Effects of Shared Information Using a Simple Supply Chain Model.....	2344
<i>Jairo R. Montoya-Torres and Gloria Rodrigues-Verjan</i>	
Simulation of the Pig Iron Transportation System in Companhia Siderurgica De Tubarão	2345
<i>Alain de Norman et d'Audenhoove and Bruno Miessa de Barros</i>	

Modeling the Indiana Coal Rail Transportation Infrastructure.....	2346
<i>Thomas F. Brady</i>	
A Conceptual Model to Support the Integration of Inter-Organizational Healthcare Information Systems	2347
<i>Hongmei Chi and Lang Zhao</i>	
Effectively Generating Random Test Data Via Cellular Automata.....	2348
<i>Hongmei Chi and Edward L. Jones</i>	
Combining Latin Hypercube Designs and Discrete Event Simulation in a Study of a Surgical Unit	2349
<i>Christian Dehlendorff, Murat Kulahci and Klaus K. Andersen</i>	
Randomless As a Critical Point: Simulation Fitting Better Planning of Distribution Centers.....	2350
<i>Marcelo K. Fugihara, Alain d'Audenhoove and Neuton T. Karassawa</i>	
Pod: the Structure of Simulation Software and Model Reuse.....	2351
<i>Yariv N. Marmor and David Sinreich</i>	
Flight Time Allocation for a Fleet of Aircraft Through Reinforcement Learning	2352
<i>Ville Mattila</i>	
Devs Specification and Implementation of Siman Blocks Using Modelica Language.....	2353
<i>Victorino Sanz, Alfonso Urquia and Sebastian Dormido</i>	
Application of the Traveling Salesman Problem Heuristics to the Reallocation of Equipment in a Small-Size Bakery Aiming At Minimizing Bread Production Time.....	2354
<i>Shih Y. Chin, Anselmo R. P. Neto and Eduardo V. G. Filho</i>	
A Comparison Between System Dynamics and Agent Based Modeling and Opportunities for Cross-Fertilization.....	2355
<i>Luminita Stemate, Codrin Pasca and Ivan Taylor</i>	
Comparing the Use of Discrete-Event Simulation and System Dynamics Models	2356
<i>Antuela A. Tako and Stewart Robinson</i>	
Visual Support for Modeling and Simulation of Cell Biological Systems.....	2357
<i>Andrea Unger, Susanne Biermann, Mathias John, Adelinde Uhrmacher and Heidrun Schumann</i>	
An Adaptive Metamodeling-Based Method for Simulation Optimization	2358
<i>Maria Guadalupe Villarreal Marroquin and Mauricio Cabrera-Rios</i>	
Soa-Conform Modeling As a Highlevel Standard for Discrete Modeling and Simulation.....	2359
<i>Thomas Wiedemann</i>	
Arena in the Petrochemical Operations Environment	2360
<i>Lorraine Malherbe</i>	
Limitations in the Use of Mathematical Models to Support Investment Decisions	2361
<i>Mario Jorge Lima and Guilherme de Aquino Barbosa</i>	
A Comparison of Inventory Optimization and Discrete-Event Simulation for Supply Chain Analysis	2362
<i>Erin Murphy</i>	

Security Checkpoint Optimizer Simulation Tool for Passenger Screening Prototyping	2363
<i>Diane Wilson, Robert Pryor, S. Annie So and Eric K. Roe</i>	
Checkout ... Kroger's Store Front Simulator.....	2364
<i>John Osborne and Matthew Duffin</i>	
Passenger Simulation Modeling to Identify Optimum Customs Staffing Levels At Lax	2365
<i>Gareth Coville</i>	
Using Data Mining Tools to Build Integrated Discrete-Event Simulations.....	2366
<i>David Ames Holland and Scott C. R. Henry</i>	
Tips and Tricks for Using Simulation Doe to Assess the Complex Interactions of Your Process.....	2367
<i>Marietsa Louise McCreary</i>	
Stochastic Modelling As a Decision Making Tool in an Integrated Green-Brown Fields Growth Program At the Sasol Secunda Site, South Africa.....	2368
<i>Anette Van der Merwe</i>	
Applying Variable Rate Processing to Queueing Simulation Models At Mimeo.Com.....	2369
<i>Paul D. Babin and Allen Greenwood</i>	
A Simulation Case Study of Patient Flow At the University of South Alabama Medical Center	2370
<i>Donna Retzlaff-Roberts and Sharon Ezelle</i>	
How Can Dynamic Disease Modeling Support Strategic Marketing At Pharmaceutical & Biotech Companies?	2371
<i>Radhesh B. Nair</i>	
A Financial Simulation of an International Business Graduate School.....	2372
<i>John Stocker, Conrado Gempesaw and Kliment Nachkov</i>	
Providence Breast Health Center Throughput.....	2373
<i>Jemba Senkandwa</i>	
Manufacturing and Distribution Integrated Solution At Votorantim Cimentos.....	2374
<i>Alain Norman d'Audenhoove and Rodrigo Cintra Villas Boas</i>	