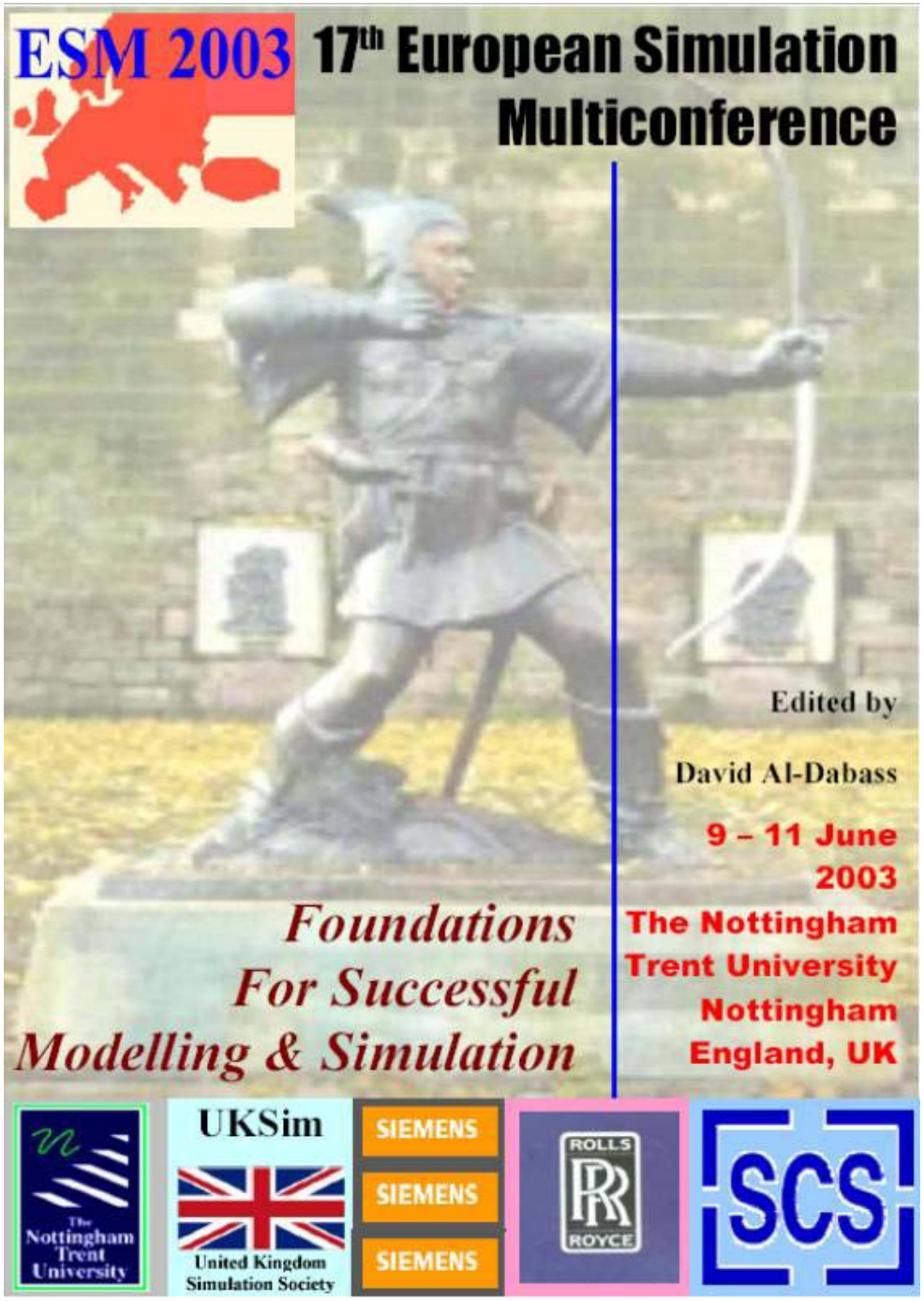


ESM 2003

Programme

All proceedings take place in the Newton building

Day & Date	Time	Where	Event
Sunday 8 June	5pm - 7pm	Newton N606	Registration Wine & Nibbles
Monday 9 June	8.30 am	N715	Meeting of Track & Session Chairs
	9am – 5pm	N715, N705, N604, N617	Conference proceedings
Tuesday 10 June	9am – 12.30pm	N715, N705, N604, N617	Conference proceedings
	1.30pm – 5.30pm	Beeston & Derby	Visits to Siemens and Rolls Royce
	6.30pm till Late	The Sheriff's Lodge (see map on the back)	Conference Dinner
Wednesday 11 June	9am – 12.30pm	N715, N705, N604, N617	Conference proceedings

ESM 2003: Conference Schedule at a Glance

All proceedings take place in the

Newton Building

The Nottingham Trent University (City Site), Burton Street, Nottingham NG1 4BU

Day	Time	TRACK T1 Room: N715		TRACK T2 Room: N705		TRACK T3 Room: N604		TRACK T4 Room: N617		Tutorials Room: N614
Sunday	5pm-7pm	Registration Desk: Room N605/6; wine & nibbles: Room N606								
Monday 9 June 2003	8.30	Meeting of Track & Session Chairs, Room N715								
	9-10	Welcome & 1st Plenary session, KN-1: Keynote Paper by Prof Erol Gelenbe, Room N715								
	10-11	Session M-T1-A Palmer-Brown Nolle	AI-1 AI-2 AI-3	Session M-T2-A Al-Begain	AS-1 AS-2 AS-3	Session M-T3-A Zobel	CS-1 CS-2 CS-3	Session M-T4-A Smari/Tropper	HP-1 HP-2 HP-3	
	11-11.30	Coffee break: Room N606								
	11.30-12.30	Session M-T1-B	AI-4 AI-5 AI-6	Session M-T2-B	AS-4 AS-5 AS-6	Session M-T3-B Orsoni	CS-4 CS-5 CS-6	Session M-T4-B Zigman/Mori	HP-13 HP-5 HP-6	
	12.30-1.30	Lunch: Room N606								
	1.30-2.30	2nd Plenary session, KN-2: Keynote Paper by Prof Dominic Palmer-Brown, Room N715								
	2.30-3.30	Session M-T1-C	AI-11 AI-14 AI-15	Session M-T2-C	AS-7 AS-8 AS-9	Session M-T3-C Kerckhoff	CS-7 CS-8 CS-9	Session M-T4-C Hartley	AI-12 HP-8 HP-9	Dr Khalid Al-Begain: TU-1
	3.30-4	Tea break: Room N606								
	4-5	Session M-T1-D	AI-16 AI-17 AI-18	Session M-T2-D	AS-10 AS-11 AS-12	Session M-T3-D Peytchev	CS-10 CS-11 CS-12	Session M-T4-D Swift	HP-10 HP-11 HP-14	
Tuesday 10 June 2003	9-10	3rd Plenary session, KN-3: Keynote Paper by Dr Khalid Al-Begain, Room N715								
	10-11	Session T-T1-A	AI-7 AI-8 AI-9	Session T-T2-A	AS-13 AS-14 AS-15	Session T-T3-A Snorek	CS-13 CS-14 CS-15	Session T-T4-A Robinson	OR-1 OR-2 OR-3	
	11-11.30	Coffee break: Room N606								
	11.30-12.30	Session T-T1-B	AI-10 AI-19 AI-20	Session T-T2-B	AS-16 AS-17 AS-18	Session T-T3-B Taylor	OR-7 OR-8 OR-9	Session T-T4-A Robinson	OR-4 OR-5 OR-6	
	12.30-1.30	Lunch: Room N606								
	1.30	1.30: Visit to Rolls Royce and Siemens; SCS-Europe Board meeting N514; 6.30: leave for the conference dinner								
Wednesday 11 June 2003	9-10	Session W-T1-A	BM-1 BM-2 BM-3	Session W-T2-A	AS-19 AS-20 AS-21	Session W-T3-A Berry	CS-16 CS-17 CS-18	Session W-T4-A Peytchev	HP-4 HP-12 HP-15	
	10-11	Session W-T1-B	BM-4 BM-5 BM-6	Session W-T2-B	AS-22 AS-23 AS-24	Session W-T3-B Lowndes	CS-19	Session W-T4-B	BM-7 BM-8	
	11-11.30	Coffee break: Room N606								
	11.30-12.30	4th Plenary session, KN-4: Keynote Paper by Dr Richard Zobel, Room N715, and close								
	12.30-1.30	Lunch: Room N606; SCS-Europe/ESM2003 Board meeting N507								

Monday 9.00-10.00, Welcome & 1st Plenary session, KN-1: Keynote Paper by Prof Erol Gelenbe, Room N715 Function Approximation by Random Neural Networks with a Bounded Number of Layers			
Track-T1, Room N715 Intelligent Systems	**Track-T2, Room N705 Analytical & Stochastic**	**Track-T3, Room N604 Complex Systems**	**Track-T4, Room N617 High Performance & Networks**
Monday 10.00-11.00			
AI-1: An Improved Self-Tuning Mechanism of Fuzzy Control by Gradient Descent Method Ahcene Habbi and Mimoun Zelmat 43 AI-2: Inducing Parameters of a Decision Tree for Expert System Shell McESE by Genetic Algorithm Ivan Bruha and F. Franek 48 AI-3: SOMA applied to Optimum Work Roll Profile Selection in the hot rolling of wide steel Lars Nolle and Ivan Zelinka 53	AS-1: A Preconditioning method for Stochastic Automata Networks Abderezak Touzene 163 AS-2: Hierarchical Stochastic Activity Networks M. Abdollahi Azgomi, Ali Movaghar 169 AS-3: An Mx/G/1 Retrial Queue With Unreliable Server and Vacations Amar Aissani 174	CS-1: Modelling of the Knowledge Dynamics of Students or Employees A P Sviridov 485 CS-2: Integrated Resource Scheduling and Simulation for Dynamic Logistic Management Roberto Mosca, Agostino Bruzzone and Alessandra Orsoni 491 CS-3: A Method for Generating Structurally Aligned Grids using A Level Set Approach Alireza Sheikholeslami, Clements Heitzinger and Siegfried Selberherr 496	HP-1: Designing a Distributed JVM on a Cluster John Zigman and Ramesh Sankaranarayana 363 HP-2: Load Balancing by Domain Decomposition: The Bounded Neighbours Approach F. Baiardi, A. Bonotti, L. Ferrucci, L. Ricci and P. Mori 371 HP-3: A Novel Redundant Data Update Algorithm for Fault-Tolerant Server-less Video-on-Demand Systems T.K. Ho and Jack Y.B. Lee 378
Monday 11.30-12.30			
AI-4: On Some Properties of Artificial Foraging Ant Communities Juan de Lara and Manuel Alfonseca 59 AI-5: Modelling Agents with UML, an Example in Building Security Evaluation Juan de Lara 65 AI-6: Face Detection in Grey Images using Orientation Matching Linlin Shen and Li Bai 71	AS-4: Exponentially Fast Monte Carlo Simulations for Non-Equilibrium Systems Andriy Bandrivskyy, S. Beri, D. Luchinsky, R. Mannella and P. McClintock 180 AS-5: Simulation Methodology For Assessing Mxran Architecture Performance Anja Wiedemann, Peter Schefczik, Georgios Nikolaidis 186 AS-6: A Characterization Of Product-Form Stationary Distributions For Queueing Systems In Random Environment Antonis Economou 193	CS-4: Performance Prototyping - Generating and Simulating a Distributed IT System from UML Models Andreas Hennig, Anja Hentschel and James Tyck 502 CS-5: From UML to Performance Measures - Simulative Performance Predictions of IT Systems using the Jboss Application Server with OMNET++ Andreas Hennig,, Dean Revill and Michael Ponitsch 509 CS-6: Meta-Modelling of Data Flow Processes with ATOM 3 Andriy Levytskyy and Eugene J.H. Kerckhoffs 514	HP-13: Case Study Of 100% Test Coverage J.C. Simner, J. Conway, T. Osman And D. Al-Dabass 628 HP-5: Flow Control in Optimistic Simulation Luiza Solomon and Carl Tropper HP-6: A Theoretical Framework for Modelling and Simulating Security Protocols Frantz Iwu and Richard Zobel 391

Monday 1.30-2.30, 2nd Plenary session, KN-2: Keynote Paper by Prof Dominic Palmer-Brown, Room N715

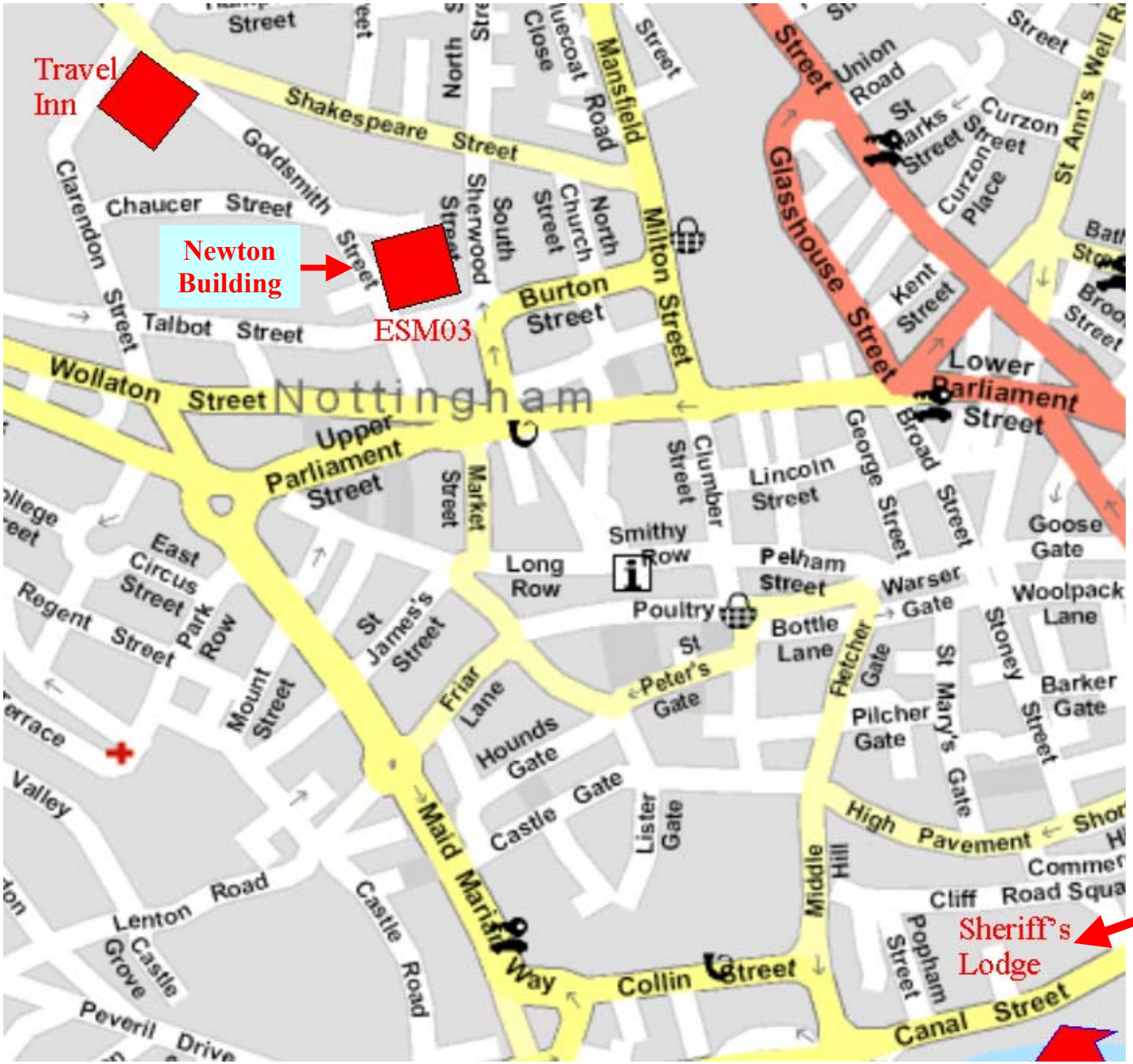
Fast Learning Neural Nets with Adaptive Learning Styles

Track-T1, Room N715 Intelligent Systems	**Track-T2, Room N705 Analytical & Stochastic**	**Track-T3, Room N604 Complex Systems**	**Track-T4, Room N617 High Performance & Networks**
Monday 2.30-3.30			
Also: Tutorial in N614: The Modelling, Evaluation and Specification Language MOSEL-2			
AI-11: Conflict Resolution by Random Estimated Costs Roman Belavkin 105 AI-14: Improving Artificial Neural Network Performance by using Temporal-Spectral Features for Agricultural Crop Classification Carlos Antonio Oliveira Vieira, Paul Mather and Paul Aplin 124 AI-15: Preliminary Artificial Neural Network Analysis Of Seldi Mass Spectrometry Data For The Classification Of Melanoma Tissue Lee J Lancashire, Shahid Mian, Robert C Rees and Graham R Ball 131	AS-7: Spectral Efficiency Of MQAM Using Diversity Techniques D. Alnsour, M. Al-Akaidi 199 AS-8: Performance Of A Crossbar Network Using Markov Chains D. Benazzouz, A. Farah 205 AS-9: MINSimulate - A Multistage Interconnection Network Simulator Dietmar Tutsch and Marcus Brenner 211	CS-7: System Dynamic Simulating Modelling of Driving System "Anchor Windlass Driven by Asynchronous Motor" (BSVAM) Ante Munitic, Mario Orsulic, Maja Krcum and Josko Dvornik 520 CS-8: Modelling and Discrete-Event Simulation of Complex Systems using Rainbow Angelo Furfaro, Libero Nigro and Francesco Pupo 526 CS-9: Simulation of Self-Organizing Structures using Neuro-Mechanical Networks Magnus Sethson, Petter Krus and Matts Karlsson 532	AI-12: Modelling Traffic Navigation Network With A Multi-Agent Platform Thierry Huet, Taha Osman and Cyril Ray 110 HP-8: Central Issues and Classifications of Location Management Techniques in Wireless and Mobile Computing Systems Seung-Yun Kim and Waleed W. Smari 404 HP-9: Real Time Systems for Urban Modelling C. Swift, K. Leinemann and G. Schaefer 411
Monday 4.00-5.00			
AI-16: Computer Mediated Communication and organisation Culture: An Agent-Based Simulation Model Enrique Canessa and Rick Riolo 136 AI-17: Novel Neural Network Methods For Describing Attributes Contained Within Lesions Images S.G.Andrews 142 AI-18: A Multiscale Method for Automated Inpainting R.J.Cant and C.S.Langensiepen 148	AS-10: Economic Reliability Forecasting in an Uncertain World Ed Stocker and Joanne Bechta Dugan 217 AS-11: A Monte Carlo Dispersion Analysis Of A Rocket Flight Simulation Software F. Saghafi and M. Khalilidelshad 222 AS-12: Interconnection Between Transmission Power and TCP Throughput Fairness in Wireless CDMA Networks Laura Galluccio, A. Leonardi and G. Morabito 229	CS-10: Rapid Prototyping of Human Interface Technologies using Simulation Maria F. Grabovac, David A. Craven and James W. Meehan 538 CS-11: Digital Audio Watermarking: Survey Mikdam A. T. Alsalami and Marwan M. Al-Akaidi 543 CS-12: An Audio Separation System Based on the Neural Ica Method Michal Brát and Miroslav Šnorek 557	HP-10: Client Side Simulation Tool JSSim Jaroslav Sklenar 417 HP-11: Prediction of Link Travel Times in the Context of Nottingham's Urban Road Network Joanna K. Hartley 423 HP-14: CGI Control Of Remote Telecommunication Equipment J.C. Simner, S. Beck, M. Wuwer, T. Osman And D. Al-Dabass 618

Tuesday 9.00-10.00, 3rd Plenary session, KN-3: Keynote Paper by Dr Khalid Al-Begain, Room N715 Queueing Models for Mobile Systems			
Track-T1, Room N715 **Intelligent Systems**	**Track-T2, Room N705** **Analytical & Stochastic**	**Track-T3, Room N604** **Complex Systems**	**Track-T4, Room N617** **Operational Research**
Tuesday 10.00-11.00			
AI-7: Adaptive optimistic Synchronization for Multi-Agent Simulation Michael Lees, Brian Logan and Georgios Theodoropoulos 77 AI-8: On-Line Design of Robost Fuzzy-Logic Control Systems by Multi-Objective Evolutionary Methods P. Stewart, D. Stone and P. Fleming 83 AI-9: Factorized Distribution Algorithms: Selection without Selected Population Robert Santana 91	AS-13: Transient Analysis of a Markov Modulated Fluid Queue with Linear Service Rate L. Rabehasaina and B. Sericola 234 AS-14: Stationary Analysis of Tandem Fluid Queues FED by Homogeneous on-off Sources N. Barbot and B. Sericola 239 AS-15: Product Form Over on-off Components in PEPA Nigel Thomas 245	CS-13: Simulation Modelling of UML Software Architectures S. Balsamo and M. Marzolla 562 CS-14: Metamodels for Real-Time Control: an Automotive Design Study Paul Stewart and P J Fleming 568 CS-15: Sensor Information Fusion for the needs of Fault Diagnosis in Marine Diesel Engine Propulsion Plant Radovan Antonic, Zoran Vukic and Ante Munitic 574	OR-1: Towards Composable Simulation: Supporting the Design of Engine Assembly Lines Andrew Winnell and John Ladbrook 431 OR-2: Applying New Technologies to Automate and Support Complex Simulation Models for Oil Distribution in Brazil Guilherme Júlio Barbosa and C. Limoeiro 437 OR-3: On the Simulation of Queues with Pareto Service P. Argibay-Losada, A. Suarez-Gonzalez, C. Lopez-Garcia, R. Rodriguez-Rubio, J. Lopez-Ardao and D. Teujeiro-Ruiz 442
Tuesday 11.30-12.30			
AI-10: A Markov network based Factorized Distribution Algorithm for Optimization Robert Santana 98 AI-19: Intelligent System Design for Knowledge Structure Models from Observed Data Vladimir Stepashko and Tatiana Zvorygi 603 AI-20: A Formal Language for Software Reuse Zina Houhamdi 154	AS-16: Approximate Solution of a class of Queuing Networks with Breakdowns Nigel Thomas, D. Thornley and H. Zatschler 251 AS-17: Functional Modelling and Performance Evaluation for two Class Diffserv Router using Stochastic Process Algebra Abdelmalek Benzekri and Osman Salem 257 AS-18: Impatient Service in a G-Network P Bocharov, C. A'Apice and B. D'Auria 263	**Operational Research** OR-7: Accelarating Joint design: simulation building blocks and process support Edwin C.Valentin, JAco H. Appelman and Marielle den Hengst-Bruggeling 644 OR-8: Visualizing the Creation of Dynamic Systems Simulations Ryszard Tolwinski 469 OR-9: Towards Collaborative Simulation Modelling: Improving Human-to-Human Interaction through Groupware Simon J E Taylor, Stewart Robinson and John Ladbrook 474	OR-4: Modelling Human Decision-Making Stewart Robinson 448 OR-5: A Simulation Model for Aircraft Maintenance in an Uncertain Operational Environment Ville Mattila, Kai Virtanen and Tuomas Raivio 456 OR-6: Verification Model Structures for Digital Systems Design Sergey Frenkel 462

Wednesday

Track-T1, Room N715 Biology & Medicine	Track-T2, Room N705 Analytical & Stochastic	Track-T3, Room N604 Complex Systems	Track-T4, Room N617 High Performance & Networks
Wednesday 9.00-10.00			
BM-1: Forming Of Controlled Living Microenvironments Alexander A. Amelkin 311 BM-2: Biomechanical Simulation Of Human Lifting B. Colobert, F. Multon, A. Cretual and P. Delamarche 318 BM-3: Kinematic Simulation Of Handball Throwing L. Fradet, R. Kulpa, B. Bideau, F. Multon and P. Delamarche 323	AS-19: Study of Neighbourhood Search Operators for Unitation Functions Roberto Santana 272 AS-20: Random Summation and its Application to the Performance Modelling of Computer Systems S. Frenkel 278 AS-21: Refined TCP Performance Evaluation with Simple Modelling Sophie Fortin-Parisi and Bruno Sericola 284	CS-16: Deriving a Hybrid Algorithm to Solve Heat Flow Problems S.Berry and V.Lowndes 581 CS-17: Designing a Constant Work in Progress Production Control System S.Berry and V.Lowndes 585 CS-18: Fuzzy Modelling Applied to Jobshop Scheduling V. Lowndes, J. M. Carter, M. H. Wu And S.Berry 589	HP-4: Bandwidth Management in a Centralized Large Scale Dissemination Network - A Simulation Study K. Zerfiridis and H. Karatza 385 HP-12: Tcp/Ip Connection Management Using A Real-Time Development Tool Ann Gray, R. Whitelock, E. Peytchev And D. Al-Dabass 636 HP-15: 3rd Generation Technologies In Wireless Communication (invited) Marwan Al-Akaidi
Wednesday 10.00-11.00			
BM-4: Stochastic And Strain-Weighted Simulations Of Cancerous Bone Remodelling: Simulation Rules And Parameters G Sisias, C Dobson, R Phillips, M Fagan and C Langton 329 BM-5: Modelling Populations Of Prokaryotic Cells: The N-Layered M-Rdg Approximation G. Chliveros, M.A. Rodrigues and D.Cooper 338 BM-6: Visualising Speciation in Models of Cichlid Fish Ross Clement 344	AS-22: A Generalized Markovian Queue to model an Optical Packet Switching Multiplexer Ram Chakka, Tien Van Do and Zsolt Pand 290 AS-23: Comparative Performance Evaluation of E-Commerce Technologies: A TPC-W-Based benchmarking Tool Yussuf Abu Shaaban and Jane Hillston 296 AS-24: Performance Modelling of Differential Services in 3G Mobile Networks Irfan Awan and Khalid Al-Begain 302	CS-19: Dime-II: A Computing Framework For Traffic Systems Mohamed Khalil And Evtim Peytchev	**Biology & Medicine** BM-7: Qualitative-Quantitative Analysis of the Water Flooding of Nature Park Željko Jagnjic, Zdenko Tadic and Franjo Jovic 349 BM-8: Interactive Spline Modelling of Human Organs for Surgical Simulators R.J. Tait, G. Schaefer, U. Kühnapfe and H.K. Çakmak 355
Wednesday 11.30-12.30, 4th Plenary session, KN-4: Keynote Paper by Dr Richard Zobel, Room N715 Some Reminiscences on The History of Hardware and Software for Simulation 1963-2003 **Close and Lunch**			



ESM2003 Conference Dinner is at the
Sheriff's Lodge
162-176 Canal Street, Nottingham
Tuesday 10th June
6.30pm for 7.30pm