FINAL PROGRAM

23-25 October 2006

Organized by

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General Information

1. Conference Location

The Conference is being held at

LAAS-CNRS (in the main building)
7, avenue du Colonel Roche
31077 Toulouse Cedex 4, France
Telephone : +33.5 61 33 62 00
Fax : +33.5 61 55 35 77
Email: laas-contact@laas.fr

The registration desk will be placed in the hallway of the main building of LAAS from Monday morning October the 23 onwards, where registration will start at 08.15 and will end at 17.00. On Tuesday October 24th registration will be from 8.30 a.m. - 3.00 p.m. with Wednesday registration only from 8.30 a.m.- 9.00. a.m.

ALL MAJOR MAPS ARE AT THE BACK OF THIS PROGRAMME

The airport is located about ten minutes by car from the city centre.

A **shuttle service** is organised between the airport and the centre of Toulouse. Departure is from door C on the ground floor.
The shuttle frequency is every 20 minutes from 6h30 to 23h00.
The one way ticket fare is **4 EURO.**.
Airport Shuttle: http://www.navettevia-toulouse.com/

Route of the Airport Shuttle Bus

The usual cost for a taxi from the Toulouse Blagnac Airport to the city center and the hotels is about 25 EURO during
weekdays, but the price is higher at night and on the weekends.

2. Badges

Each registrant will receive a name badge upon registration. The badge must be worn,,in order to be admitted to the technical sessions, lunches and social event.

3. Tickets

Extra tickets for the social event and lunches are available from the registration desk. Price: (or equivalent in another currency) for extra tickets

Extra conference dinner	**€ 60**
Extra lunch ticket	**€ 20**

4. Registration

The ESM'2006 Registration Desk will be open for information and registration:

Monday, October 23 ..... 8.15 a.m. to 5.00 p. m.
Tuesday, October 24 ..... 8.30 a.m. to 3.00 p. m.
Wednesday, October 25 ..... 8.30 a.m. to 9.00 a.m.

The location of the registration desk will be signposted

5. Conference Proceedings

Each fully paid registrant will be provided with a copy of the Conference Proceedings (printed format) **This is NOT applicable to students who are not authors**.
(Extra copies are available on a cash and carry basis at special rates during **(ESM'2006**)

Price: (or equivalent in another currency) for an extra copy

ESM'2006 Proceedings CASH AND CARRY	**€ 50**

6. Meeting Rooms

The meeting rooms are designated A-B-C and D. The way to the rooms will be signposted. An Internet room will be available.

General Information

7. Need Help?

Please see the conference desk for your questions

8. Social Events and Lunches

All registrants are invited to
All **lunches** and **Coffee Breaks** are served at LAAS

The Conference Dinner
All participants are invited to the conference dinner on **TUESDAY** the 24th of October. As we need to give an exact number of participants we would appreciate **your confirmation at the desk before Tuesday lunchtime**.

The conference dinner will be held in the centre of Toulouse on the 24th of October at

Les Caves de la Marechale,
3, rue Jules Chalande
Tel: +33.5 61 23 89 88 from 8.00 p.m. onwards.

We will meet at 7.45 in front of the Town Hall at the main gate on the Place de la Capitole (the main square in Toulouse) and will walk as a group to the restaurant.

9. Visit

A guided visit is envisaged on Tuesday the 24th of October to TAXIWAY, where participants will be able to visit the AIRBUS A380 on the **CIRCUIT JEAN LUC LAGARDERE SITE A380**. The participants who pre-registered will be the only ones which will be able to make the visit.

10. Room Legend

The following rooms will be used for the conference:
Every conference day: "salle de Conférence" and in addition,
Monday: rooms "Vignemalle", "Tourmalet" and "Bardeen"
Tuesday: rooms "Vignemalle", "Tourmalet" and "Europe"
Wednesday: rooms "Vignemalle", "Tourmalet" and "Europe"

11. Best Paper Award

During the conference the papers, which were accepted as extended papers will be judged by the committee in order to choose the best paper of the ESM'2006 conference.

12. Shuttle Buses

2 Buses will be available to the participants to take them to and from LAAS. They will leave in the morning from 2 locations: The Novotel Toulouse Centre and the Ibis Centre Hotel. (see on the hotel information page)

ALL SESSION CHAIRPERSONS IN THIS PROGRAM ARE PROVISIONAL

THE NUMBERS NEXT TO THE PRESENTATIONS DENOTE THE PAGE-NUMBERS IN THE PROCEEDINGS. IF NO NUMBERS ARE MENTIONED THEN THIS PAPER IS NOT PUBLISHED IN THE PROCEEDINGS

THE AUTHORS WHO ARE UNDERLINED ARE NORMALLY THE PRESENTERS

PAPERS IN GREY BOXES ARE THE EXTENDED PAPERS ELIGIBLE FOR THE BEST PAPER AWARD

CHECK OUT THE OTHER EUROSIS EVENTS ON OUR WEBSITE:
http://www.eurosis.org

MONDAY, 23rd OCTOBER 2006

08.15-17.00	REGISTRATION			
09.00-09.15	OPENING SESSION IN LA SALLE DES CONFERENCES –ROOM D			
09.15-10.00	KEYNOTE ADDRESS BY MARWAN AL-AKAIDI, DE MONTFORT UNIVERSITY, UK			
10.00-10.30	COFFEE BREAK			
10.30-12.30	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	INTRODUCTION TO COMPLEX SYSTEMS SIMULATION AND MODELLING	SIMULATORS	SIMULATION DYNAMICS IN ECOLOGY AND BIOLOGY	BACK-UP SESSION
12.30-14.00	LUNCH BREAK			
14.00-15.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	COMPLEX SYSTEMS SIMULATION AND MODELLING	WEB BASED SIMULATION	AGENT BASED TUTORIAL PART I	PATH PLANNING
15.00-15.30	COFFEE BREAK			
15.30-18.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	GIS AND COMPLEXITY	AGENT BASED SIMULATION METHODOLOGY	SEMICONDUCTOR MANUFACTURING	HIGH PERFORMANCE COMPUTING

18.30 FREE EVENING

TUESDAY, 24th OCTOBER 2006

08.30-15.00	REGISTRATION			
09.00-10.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	EMOTION MODELLING	RESOURCE FLOW AND PLANNING MODELLING I	PROCESS SIMULATION WITH AGENTS	PETRI NETS FORMALISM I
10.00-10.30	COFFEE BREAK			
10.30-12.30	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	SIMULATION AND PRODUCTION SYSTEMS	RESOURCE FLOW AND PLANNING MODELLING II	AGENT BASED NEGOTIATION	PETRI NETS FORMALISM AND SIMULATION
12.30-14.00	LUNCH BREAK			
14.00-15.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	ECOLOGICAL MODELLING	SIMULATION METHODOLOGY	CROWD AND GROUP SIMULATION	PETRI NETS SIMULATION
15.00-15.30	COFFEE BREAK			
15.30-17.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
		FLUID FLOW SIMULATION	AGENT BASED SIMULATION IN BIOLOGY	BACK-UP SESSION
20.00 – 23.00	CONFERENCE DINNER			

WEDNESDAY, 25th OCTOBER 2006				
08.30-09.00	REGISTRATION			
09.00 10.00	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	DECISION BASED SIMULATION	ANALYTICAL SIMULATION IN COMMUNICATIONS	BIOLOGICAL SIMULATION	EUROSIS MEMBER MEETING
10.00-10.30	COFFEE BREAK			
10.30 12.30	PARALLEL SESSIONS			
	ROOM A	ROOM B	ROOM C	ROOM D
	COLLECTIVE INTELLIGENCE SIMULATION	APPROXIMATION AND EVALUATION SIMULATION	MODELING OPERABILITY	FP 7 MEETING
12.30-12.45	CLOSING SESSION AND BEST PAPER AWARD ROOM A			

Monday, 23rd October 2006

HALLWAY

Registration

08.15 - 17.00

MAIN HALL

09.00 – 10.00

Opening ESM'2006 and Welcome

Welcome Address

Professor Malik Ghallab
Head of LAAS CNRS

Alexandre Nketsa
LAAS-CNRS
ESM2006 General Conference Chair

Philippe Geril
EUROSIS, Ghent University
EUROSIS Coordinator

09.15 – 10.00

KEYNOTE SPEECH
Chair: Alexandre Nketsa, LAAS-CNRS, Toulouse, France

The Wireless and Mobile Revolution: Signal Processing as the Way Forward
Marwan Al-Akaidi

Monday, 23rd October 2006

10.00 - 10.30
COFFEE BREAK

10.30 – 12.30

ROOM A- 10.30-12.30 COMPLEX

INTRODUCTION TO COMPLEX SYSTEMS MODELLING
Chair: Cyrille Bertelle, University of Le Havre, Le Havre, France

INVITED SPEECH
Complexity, Control and Self-Organization
Michel Cotsaftis

COMPLEX-02
Holistic Metrics, a Trial on Interpreting Complex Systems
J. Manuel Feliz-Teixeira and António E. S. Carvalho Brito **385**

COMPLEX-06
Simulating Dynamic Behaviours in Complex Organisations: case study application of a well structured modelling approach
M Zhen and R H Weston **390**

COMPLEX-13
Different Goals in Multiscale Simulations and how to reach them
Pierrick Tranouez and Antoine Dutot **399**

ROOM B- 10.30-12.00 SIMULATORS

SIMULATORS
Chair: Jean-Claude Pascal, LAAS-CNRS, Toulouse, France

GRAPH-03
An Approach to Virtual-Lab Implementation using Modelica
Carla Martin, Alfonso Urquia and Sebastian Dormido **137**

METH-11
An Integrated Vehicular and Network Simulator for Vehicular Ad-Hoc Networks
Cristian Gorgorin, Victor Gradinescu, Raluca Diaconescu, Valentin Cristea and Liviu Iftode **142**

Monday, 23rd October 2006

COMPLEX-01
Concept of "hands on "training for Spacecraft Operations
Christian D. Bodemann, Joachim Ochs, Carol Quirke and Roberto Palmari **150**

ROOM C- 10.30-12.00 ECO-BIO

SIMULATION DYNAMICS IN ECOLOGY AND BIOLOGY

Chair: Alexandre Nketsa, LAAS, CNRS, Toulouse, France

BIO-03
Micro-Gen: An Agent-Based Model of Bacteria-Antibiotic Interactions in Batch Culture
James T. Murphy and Ray Walshe..... **239**

ENV-03
Water Anoxia and Species Selection in Lagoons: An Analysis of Ecosystem Dynamics
Francesco Cioffi and Giovanni Cannata **243**

ENV-01
Modelling the Fight against Forest Fires by Means of a Numerical Battlefield
Yves Dumond **251**

ROOM D- 10.30-12.30 BACK-UP

BACK-UP SESSION

This session is for people who cannot present their paper at the allotted time within the conference programme and who would like to move their presentation to this session. Authors are required to inform the organization before the start of the conference.

12.30 - 14.00
LUNCH BREAK

Monday, 23rd October 2006

14.00 – 15.00

ROOM A- 14.00-15.00 COMPLEX

COMPLEX SYSTEMS MODELLING

Chair: Gerard H E. Duchamp, Univ. Paris Nord, Villetaneuse, France

COMPLEX-05
Optimization in Packaging and Real Estate
William C. Conley **404**

COMPLEX-23
Invariant Manifolds of complex systems
Jean-Marc Ginoux and Bruno Rosseto..... **408**

ROOM B- 14.00-15.00 WEB

WEB BASED SIMULATION

Chair: Hamid Demmou, LAAS-CRNS, Toulouse, France

WEB-01
Integration of Web Based Simulators in the SINPL Platform
Alberto Coen-Porisini, Ignazio Gallo and Antonella Zanzi **259**

WEB-02
GROUPSIM: Extending a Simulation Groupware to allow Interoperability
Celso M. Hirata; Tony Calleri França, Vakulathil Abdurahiman and Germano de Souza Kienbaum **264**

ROOM C- 14.00-15.00 PATH PLANNING

PATH PLANNING AND COGNITIVE MAPS

Chair: Khader Sahraoui, LAAS-CNRS, Toulouse, France

METH-02-AI
Path Planning for UAVs using Symbiotic Simulation
Farzad Kamrani, Marianela Garcia Lozano and Rassul Ayani **207**

Monday, 23rd October 2006

AI-04
Action Selection in Robots Based on Learning Fuzzy Cognitive Map and Analysis of Variance
Ali Azadeh, Koosha Golmohammadi and Amirhossein Gharehgozli **214**

ROOM D- 14.00-15.00 **TUTORIAL**
AGENT BASED MODELLING AND SIMULATION PART I
Laszlo Gulyas

15.00 - 15.30
COFFEE BREAK

15.30 - 18.00

ROOM A- 15.30-17.30 **COMPLEX**
GIS AND COMPLEXITY
Chair: Michel Cotsaftis

COMPLEX-16
The Evolution process of Geographical Data Base within self-organized topological propagation area
Hakima Kadri-Dahmani, Cyrille Bertelle, Gérard H.E. Duchamp and Aomar Osmani..... **415**

COMPLEX-17
Self-organization simulation over Geographical Information System based on multi-agent platform
Rawan Ghnemat, Cyrille Bertelle and Gérard H.E. Duchamp **420**

COMPLEX-18
Cliff Collapse Hazards spatio-temporal Modelling through GIS : from Parameters determination to multi-scale Approach
Anne Duperret, Cyrille Bertelle and Pierre Laville..... **425**

COMPLEX-22
Structural and dynamic Complexities of Risk and Catastrophe Systems: An Approach by System Dynamics Modelling
Damienne Provitolo **430**

Monday, 23rd October 2006

ROOM B- 15.30-18.00 AI

AI BASED SIMULATION METHODOLOGY

Chair: Alexandre Nketsa, LAAS-CNRS-, Toulouse, France

AI-06
Game Analysis by means of Simulation
Roland Angerer and Helge Hagenauer **177**

AI-01
Simulation Based Optimisation using Global Search and Neural Network Metamodels
Anna Persson, Henrik Grimm and Amos Ng **182**

GRAPH-01
Optimization by extension-restriction neighborhood in local search application to graph coloring problem
Isabelle Devarenne, Hakim Mabed and Alexandre Caminada **187**

AI-02
Experimental Based Modeling and Pareto Optimization of Indirect Injection Diesel Engines
K. Atashkari, N. Nariman-zadeh, A. Jamali and İ. Çelikten..... **192**

AI-03
Supervised Fuzzy Control in the Simulation of Manufacturing Systems
Karim Tamani, Reda Boukezzoula and Georges Habchi **200**

ROOM C- 15.30-17.30 HPCN

HIGH PERFORMANCE COMPUTING SIMULATION

Chair: Jean-Claude Pascal, LAAS-CNRS, Toulouse, France

HPCN-01
Performance Analysis for High-Precision Interconnect Simulation
R. Heinzl, M. Spevak, P. Schwaha, T. Grasser and S. Selberherr **113**

HPCN-02
Developing a Meta Methodology Supporting the Application of Parallel Simulation
László Muka and Gábor Lencse..... **117**

Monday, 23rd October 2006

HPCN-03-DEVS
Exploratory Modeling with Smalldevs
Vladimır Janousek and Elod Kironsky **122**

HPCN-05
DISTME: A Generic Toolkit for Stochastic Simulation Distribution
Romain Reuillon and David R.C. Hill **127**

ROOM D- 15.30-17.30 TUTORIAL

AGENT BASED MODELLING AND SIMULATION PART I

Laszlo Gulyas

THE ESM2006 SHUTTLE BUSSES WILL PICK UP THE PARTICIPANTS AT LAAS TO TAKE THEM BACK TO THE CITY CENTRE AT 18.15

FREE EVENING

Tuesday, 25th October 2006

HALLWAY

Registration

08.30 - 15.00

09.00 – 10.00

ROOM A- 09.00-10.00 COMPLEX
EMOTION MODELLING
Chair: Gerard H. E. Duchamp, Univ. Paris Nord, Villetaneuse, France

COMPLEX-12
Simulation of emotional Processes in Decision Making
Karim Mahboub **459**

COMPLEX-21
Emotions: Theoretical Models and Clinical Implications
Sophie Baudic and Gerard H E Duchamps **464**

ROOM B- 09.00-10.00 METH
RESOURCE FLOW AND PLANNING MODELLING I
Chair: Philippe Esteban, LAAS-CNRS, Toulouse, France

GRAPH-06
Event simulation of supply chain networks – Dynamic detailing in the material flow simulator d³FACT insight
Wilhelm Dangelmaier, Mark Aufenanger, Kiran Mahajan, Christoph Laroque and Daniel Huber..... **50**

METH-06
The Model of Wood Resource Flow
Janis Oss..... **47**

ROOM C- 09.00-10.00 AGENTS
PROCESS SIMULATION WITH AGENTS
Chair: Mario Paludetto, LAAS-CNRS, Toulouse, France

METH-03-PETRI-AGENT
Agent-Based Modeling of Processes and Scenarios with High Level Petri Nets
Timo Steffens, Thomas Zöller and Philipp Hägelmeyer..... **323**

Tuesday, 24th October 2006

AGENT-11
Formal Infrastructure for Verification of Epistemic Properties of Multi-Agent Systems
M. Bagic and M. Kunstic **328**

ROOM D- 09.00-10.00 PETRI NETS

PETRI NETS FORMALISM

Chair: Carmen Bobeanu, Ghent University, Ghent, Belgium

PETRI-05
Petri Net - based project scheduling methods: advantages and shortcomings
Konstantinos Kirytopoulos, Viktor Diamantas, Vrassidas Leopoulos and Christos Dimadis **335**

PETRI-03
Painted Petri Net and Functional Abstraction to Visualize Dynamic Modeling
Simon Hardy and Pierre N. Robillard **340**

10.00 - 10.30
COFFEE BREAK

10.30 - 12.30

ROOM A- 10.30-12.30 COMPLEX

SIMULATION AND PRODUCTION SYSTEMS

Chair: Cyrille Bertelle, University of Le Havre, Le Havre, France

COMPLEX-15
Complex Systems Dynamics in an Economic Model with Mean Field Interactions
Gianfranco Giulioni **491**

COMPLEX-03
Complexity of Traffic Interactions: Improving Behavioural Intelligence in Driving Simulation Scenarios
Abs Dumbuya, Anna Booth, Nick Reed, Andrew Kirkham, Toby Philpott, John Zhao and Robert Wood **497**

Tuesday, 24th October 2006

COMPLEX-07
An Integrative Simulation Model for Project Management in Chemical Process Engineering
Bernhard Kausch, Nicole Schneider, Morten Grandt and Christopher Schlick **501**

COMPLEX-19
Detection and reification of emerging systems in population dynamic simulations using interaction networks and genetic algorithms: a way to exploit Individual-Based Models
Guillaume Prevost and Cyrille Bertelle **471**

ROOM B- 10.30-12.30 METH

RESOURCE FLOW AND PLANNING MODELLING II

Chair: Khader Sahraoui, LAAS-CNRS, Toulouse, France

METH-05
Modelling Methodology and Simulation of a Hospital Laundry
Michel Gourgand, Fateh Mebrek and Alain Tanguy **55**

BIO-05
A Queueing Network Model of Patient Flow in an Accident and Emergency Department
S.W.M. Au-Yeung, P.G. Harrison and W.J. Knottenbelt **60**

BIO-04
A Capacity Planning Simulation Model and its Application to a Nuclear medicine Service
Rob Cameron, Robert E Dugdale and Michael J. Page **68**

ENV-02
Multiagent System for Flow Management in Complex Systems: Development of a Decision Support System in Epidemiology
Alexandre Weber, Daniel Dupont, Anne Follet, Philippe Kubiak and Ahmed Rahmani **73**

ROOM C- 10.30-12.30 AGENTS

AGENT BASED NEGOTIATION AND ACTORS

Chair: Alexandre Nketsa, LAAS-CNRS, Toulouse, France

AGENT-03
Simulation of an Agent-based MarketPlace
Maria João Viamonte, Isabel Praça, Carlos Ramos and Zita Vale **285**

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AGENT-06
An Approach of Agent Based Distributed Simulation for Supply Chains: Negotiation Protocols between Collaborative Agents
El Habib Nfaoui, Omar El Beqqali, Yacine Ouzrout and Abdelaziz Bouras **290**

AGENT-09
Agent Based VS Nested Simulation for supporting On-Line Teller Scheduling in Groceries Supermarket Distribution: A Case Study
Roberto Revetria, Cinzia Forgia and Alessandro Catania **296**

AGENT-05
Agent Based Simulation Architecture augmented by Actors
Norbert Adamko and Valent Klima **305**

ROOM D- 10.30-12.30 PETRI NETS

PETRI NETS FORMALISM AND SIMULATION

Chair: Carmen Bobeanu, Ghent University, Ghent, Belgium

PETRI-06
A Meta-modeling Approach for Sequence Diagrams to Petri Nets Transformation within the requirements validation process
Adel Ouardani, Philippe Esteban, Mario Paludetto and Jean-Claude Pascal..... **345**

PETRI-07
State Class Graph for Fuzzy Time Petri Nets
J. Cardoso, Xiaoyu Mao and Robert Valette..... **350**

PETRI-04
Hybrid Simulation for Critical Scenario Derivation
N. Sadou and H. Demmou..... **361**

PETRI-01
Efficient enabling Test in Simulation of SWN
Lorenzo Capra and Massimiliano De Pierro **367**

12.30 - 14.00
LUNCH BREAK

Tuesday, 24th October 2006

14.00 - 15.00

ROOM A- 14.00-15.00 COMPLEX
NATURAL ECOSYSTEMS MODELLING
Chair: Pierrick Tranouez, University of Le Havre, Le Havre, France

COMPLEX-20
Model and simulation engineering in the field of ecology using web and ontology and XML
Guillaume Prevost and Cyrille Bertelle **478**

COMPLEX-09
Application of homotopy perturbation method for ecosystems modelling
Zaid Odibat and Cyrille Bertelle **483**

ROOM B- 14.00-15.00 METH
SIMULATION METHODOLOGY
Chair: Mario Paludetto, LAAS-CNRS, Toulouse, France

METH-01
A formal Method for the Sequential untimed Subset of SystemC
Primrose Mbanefo, Wolfgang Raab and Pierre Wodey **5**

PETRI-09
Simulation Validity Assessment tailoring with UML
V.Albert, A.Nketsa and M.Paludetto **8**

ROOM C- 14.00-15.00 AGENT
CROWD AND GROUP SIMULATIONS
Chair: Khader Sahraoui, LAAS-CNRS, Toulouse, France

AGENT-02
Emotions on Agent Based Simulators for Group Formation
Goreti Marreiros, Paulo Novais, José Machado, Carlos Ramos and José Neves **310**

AGENT-07
Time and Space Management in Crowd Simulation
Benoit Lacroix, Philippe Mathieu and Sebastien Picault **315**

Tuesday, 24th October 2006

ROOM D- 14.00-15.00 **PETRI NETS**

PETRI NETS SIMULATION

Chair: Philippe Esteban, LAAS-CNRS, Toulouse, France

PETRI-08
ESA_PetriNet tool: Extraction Scenarios & Analyzer by Petri Net model Application to the extraction of feared scenarios in a landing gears system
Malika Medjoudj, Hamid Demmou and Robert Valette **375**

PETRI-10
Reducing Complexity in the Systematic Construction of Petri Nets Models through Graph Transformations
Carmen Veronica Bobeanu and Hendrik Van Landeghem **521**

15.00 - 15.30
COFFEE BREAK

15.15 – DEPARTURE TO AIRBUS FOR A GROUP OF 47 PEOPLE (this was decided on the first-in basis of the registrations received) The list of participants will be posted at the registration desk. The other participants will be taken back to Toulouse centre after the last sessions finish at LAAS at 17.15 in the 2nd bus.

15.30 – 17.00

ROOM B- 15.30-17.00 **FLUID**

FLUID FLOW SIMULATION

Chair: Jean-Claude Pascal, LAAS-CNRS, Toulouse, France

FLUID-04
Thermohydraulic Modeling and Analysis of CANDU Shutdown Cooling System
Ilie Prisecaru, Daniel Dupleac and Niță Iulian **164**

FLUID-02
Solubility of Toxic Compounds from Petroleum Spills into Seawater
M. R. Riazi and Y. M. Al-Roomi **169**

FLUID-03
Investigation of Flow Dynamics in Porous Media using Computer Simulation
Arezou Jafari, S. Mohammad Mousavi, Piroz Zamankhan, Kari Pietarinen and Pertti Sarkomaa **157**

Tuesday, 24th October 2006

ROOM B- 15.30-16.30 AGENT

AGENT BASED SIMULATION IN BIOLOGY

Chair: Hamid Demmou, LAAS-CNRS, Toulouse, France

AGENT-01
Analysis of the relative importance of the humoral versus the cellular response during the acute stage of HIV infection: Results from multi-agent computer simulations
Ashley Callaghan, Heather J. Ruskin and Ray Walshe **271**

AGENT-08-BIO-PETRI
Simulation of Attentional Networks in the Brain – an Agent Based Approach
Terje Kristensen and Jørgen Johansen **277**

THE ESM2006 SHUTTLE BUSSES WILL PICK UP THE PARTICIPANTS TO TAKE THEM BACK TO THE CITY AT 17.15

CONFERENCE DINNER – 20.00 -23.00

Les Caves de la Marechale,
3, rue Jules Chalande
Tel: +33.5 61 23 89 88 from 8.00 p.m. onwards.

We will meet at 7.45 in front of the Town Hall at the main gate on the Place de la Capitole (the main square in Toulouse) and will walk as a group to the restaurant.

Wednesday, 25th October 2006

HALLWAY

Registration

08.30 - 09.00

09.00 – 10.00

ROOM A- 09.00-10.00 **METH**

DECISION BASED SIMULATION

Chair: Hamid Demmou, LAAS-CNRS, Toulouse, France

METH-15
The Application PLA for Creation Simulation Models for Decision Making
H.Pranevicius, V.Pilkauskas and D. Makackas **37**

METH-16
The Simulation of the economic Effect of Power System Structure including Renewable Sources of Energy
Eugeniusz M. Sroczan..... **42**

ROOM B- 09.00-10.00 **ANALYT**

ANALYTICAL AND NUMERICAL SIMULATION IN COMMUNICATIONS

Chair: Khader Sahraoui, LAAS-CNRS, Toulouse, France

ANMT-01
Differential Modeling and its Application to TCP/IP
H. Hassan, J-M.Garcia and C. Bockstal **101**

ANMT-06
Transient Analysis of Semi-Markovian Switching Systems in Telecommunication Networks
Gerhard Hasslinger and Sebastian Kempken..... **106**

ROOM C- 09.00-10.00 **BIO**

BIOLOGICAL SIMULATION

Chair: Jean-Claude Pascal, LAAS-CNRS, Toulouse, France

Wednesday, 25th October 2006

BIO-01
Geometric Hierarchical Data Organisation in the Modelling of the Cerebellum
Omar Bennani, P. Chauvet, F. Jouen and G.A. Chauvet **223**

BIO-02
Development of a Cardiovascular Model with Baroreceptor Reflex
Jinhuai Lin, Derek G Tilley and Roger F Ngwompo..... **229**

ROOM D- 09.00-10.00 EUROSIS

EUROSIS MEMBER MEETING

At this meeting an update will be given about EUROSIS plus an in depth overview of the new EUROSIS website and its applications for the members.

10.00 - 10.30
COFFEE BREAK

10.30 - 12.30

ROOM A- 10.30-12.30 COMPLEX

COLLECTIVE INTELLIGENCE AND NEURAL LEARNING

Chair: Pierrick Tranouez, University of Le Havre, Le Havre, France

COMPLEX-08
Multiobjective Optimization using Ant Colonies
Feïza Ghezail, Henri Pierreval and Sonia Hajri Gabouj..... **437**

COMPLEX-10
Self-organization in an artificial immune Network System
Julien Franzolini and Damien Olivier **440**

COMPLEX-11
Pyocyanic Bacillus Propagation Simulation
Antoine Dutot, Pierre Magal, Damien Olivier and Guilhelm Savin **445**

COMPLEX-24
On Adapting Neural Networks to Cellular Manufacturing
Dania A. El-Kebbe and Christoph Danne **450**

Wednesday, 25th October 2006

ROOM B- 10.30-12.00 ANALYT
APPROXIMATION AND EVALUATION SIMULATION
Chair: Mario Paludetto, LAAS-CNRS, Toulouse, France

ANMT-03
Reliability Based Pareto Optimum Design of Robust Compensators for a Dynamic System with Parametric Uncertainty
Nader Nariman-zadeh, Amir Hajiloo, Ali Jamali, Ahmad Bagheri and Aria Alasti **83**

ANMT-04
Generating Simulation Input with Approximate Copulas
Feras Nassaj and Johann Christoph Strelen **88**

ANMT-05-COMPLEX
Expanded scope of traffic flow analysis: Entity Flow-Phase Analysis for Rapid performance evaluation of enterprise process systems
Gabor Lencse and Laszlo Muka **94**

ROOM C- 10.30-12.00 METH
MODEL INTEROPERABILITY
Chair: Philippe Esteban, LAAS-CNRS, Toulouse, France

METH-08
Process Interaction Diagrams for Structured Discrete Event Simulation Modeling
Acácio M. O. Porta Nova **19**

METH-07
Contextual Testing of Interactive Product Simulations for New Generation Products
Alex Woolley and Steve Gill **23**

METH-10
Simulation Model Interoperability in Support of Complex Organisation Design and Change
Richard Weston, Min Zhen, Aysin Rahimifard, Joseph Ajaefobi, Chenghua Ding, Alejandro Guerrero, Bilal Wahid and Tariq Masood **28**

Wednesday,25th October 2006

ROOM D- 10.30-12.00 **FP-7-MOSAIC**

Preparatory meeting to send in a proposal for an NoE on Simulation for the FP-7

ROOM A 12.30 - 12.45 **BEST PAPER**

CLOSING SESSION AND BEST PAPER AWARD

Chair: Alexandre Nketsa and Philippe Geril

THE ESM2006 SHUTTLE BUSSES WILL PICK UP THE PARTICIPANTS at LAAS TO TAKE THEM BACK TO THE CITY AT 13.00

SEE YOU ALL
OCTOBER 2007
IN MALTA
FOR ESM'2007
at the WESTIN hotel

Track proposals and tutorial proposals can be sent in by January 30th, 2007

CONFERENCE HOTELS

The following hotels are those from which the shuttle busses will depart to ESM'2006	
IBIS Centre ** 2, rue Claire-Paulhac Tel: +33 (0)5 61 63 61 63 Fax: +33 (0)5 61 63 07 46 www.ibishotel.com	Monday-Thursday 73 EUR Friday-Sunday 55 EUR
NOVOTEL TOULOUSE Centre Compans Caffarelli 5, Place Alfonse Jourdain Tel: +33.(0)5.61.21.74.74 Fax: +33.(0)5.61.22.81.22 www.novotel.com H0906@accor-hotels.com	Sunday-Tuesday 135 EUR Wednesday-Saturday 129 EUR

Departure times of the shuttle busses

Monday October 23

Morning: **Novotel Toulouse Centre: 7.45**
Hotel Ibis Centre: 8.00 (around corner, on the Place Jeanne d'Arc)
Arrival at LAAS: 8.30-8.45

Evening: **departure LAAS: 18.15 for the city centre**

Tuesday October 24

Morning: **Novotel Toulouse Centre: 8.00**
Hotel Ibis Centre: 8.15 (around corner, on the Place Jeanne d'Arc)
Arrival at LAAS: 8.30-8.45

Afternoon: **Departure to AIRBUS of bus 1: at 15.15. Arrival AIRBUS: 16.00.**
Departure to Toulouse centre: 18.00
Departure from LAAS of bus 2: at 17.15 for the City Centre

Wednesday October 25

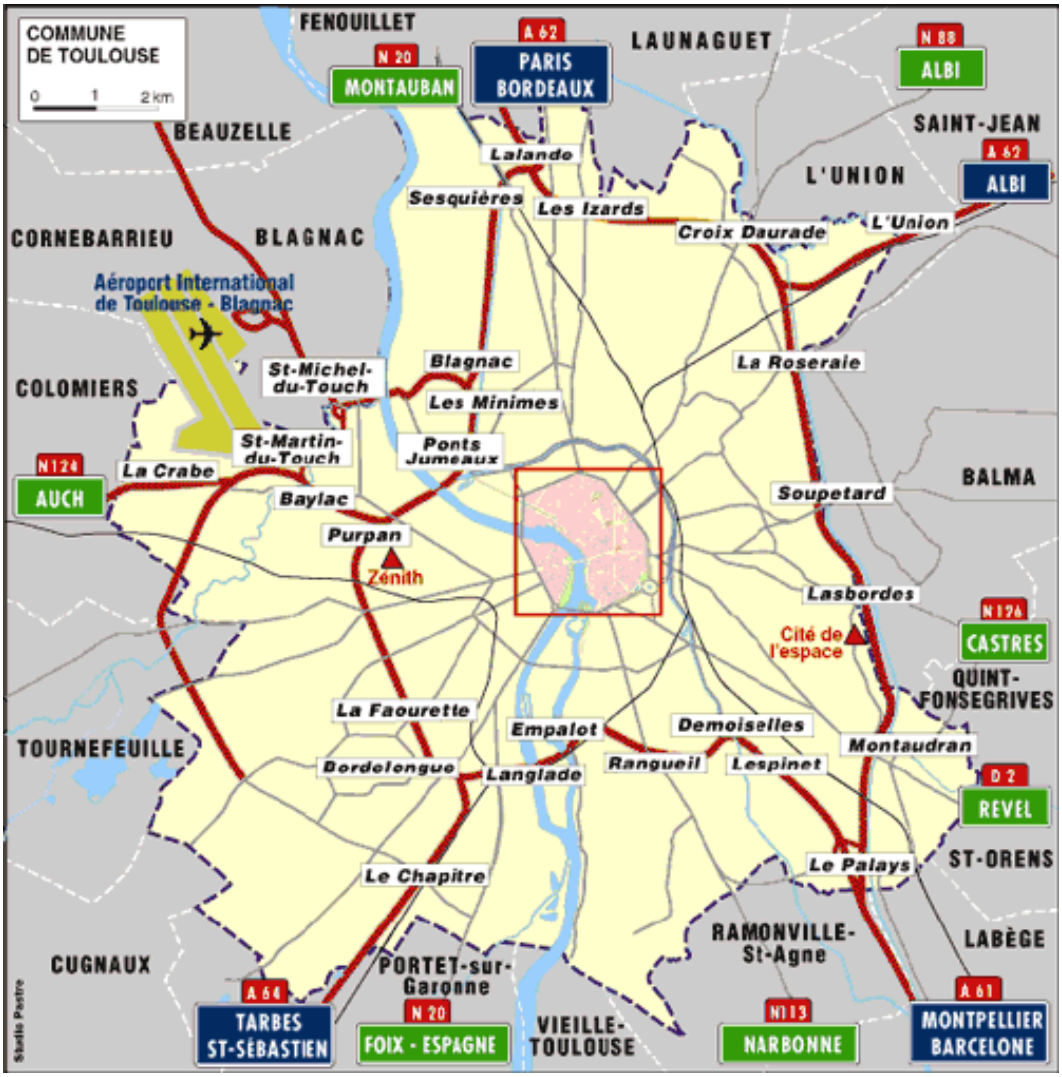
Morning: **Novotel Toulouse Centre: 8.00**
Hotel Ibis Centre: 8.15 (around corner, on the Place Jeanne d'Arc)
Arrival at LAAS: 8.30-8.45

Lunch time: Departure from LAAS to city centre at 13.00

Conference Hotels

Conference Site Maps

CENTRE OF TOULOUSE

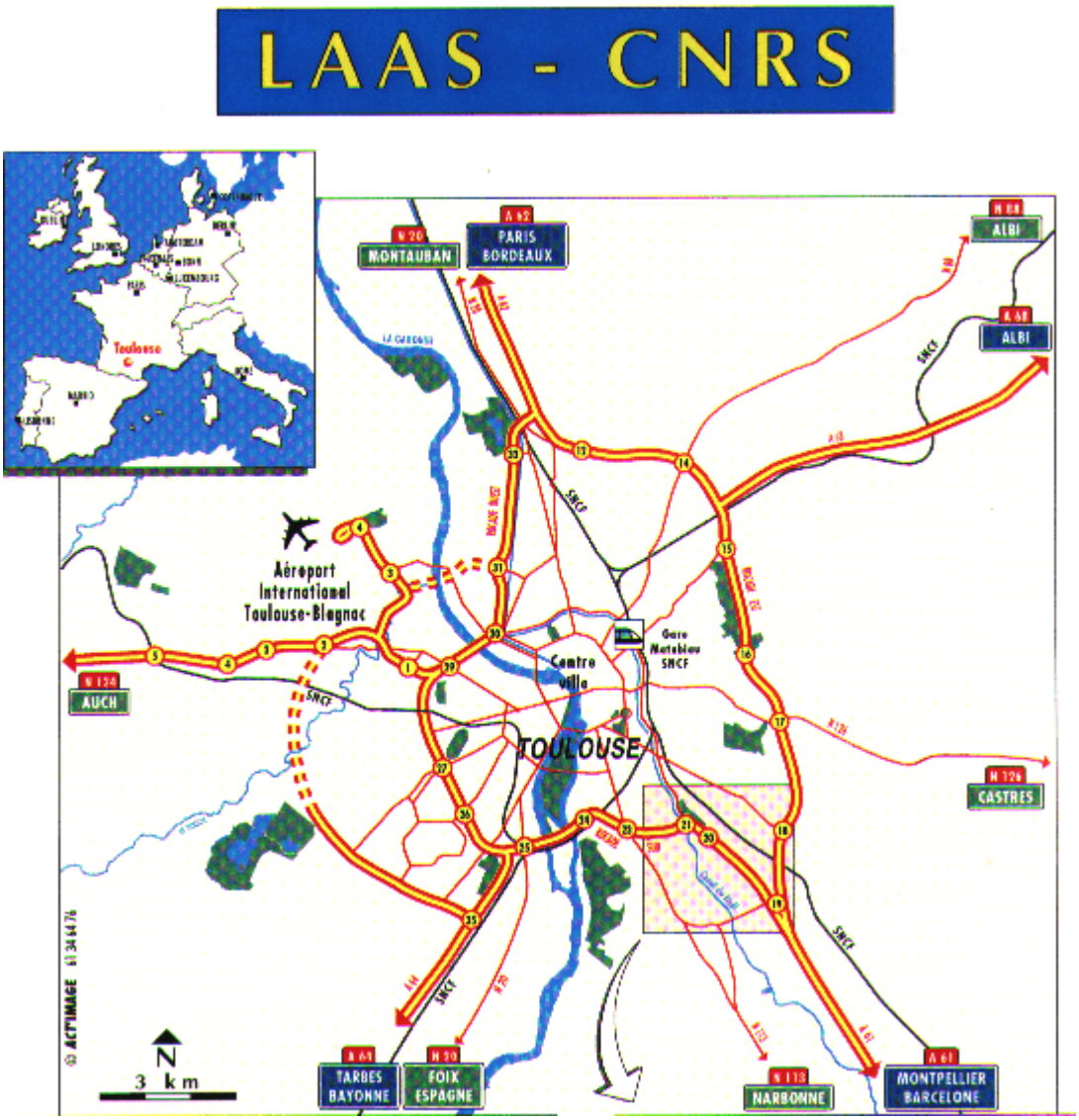


Toulouse surroundings and road system around the city

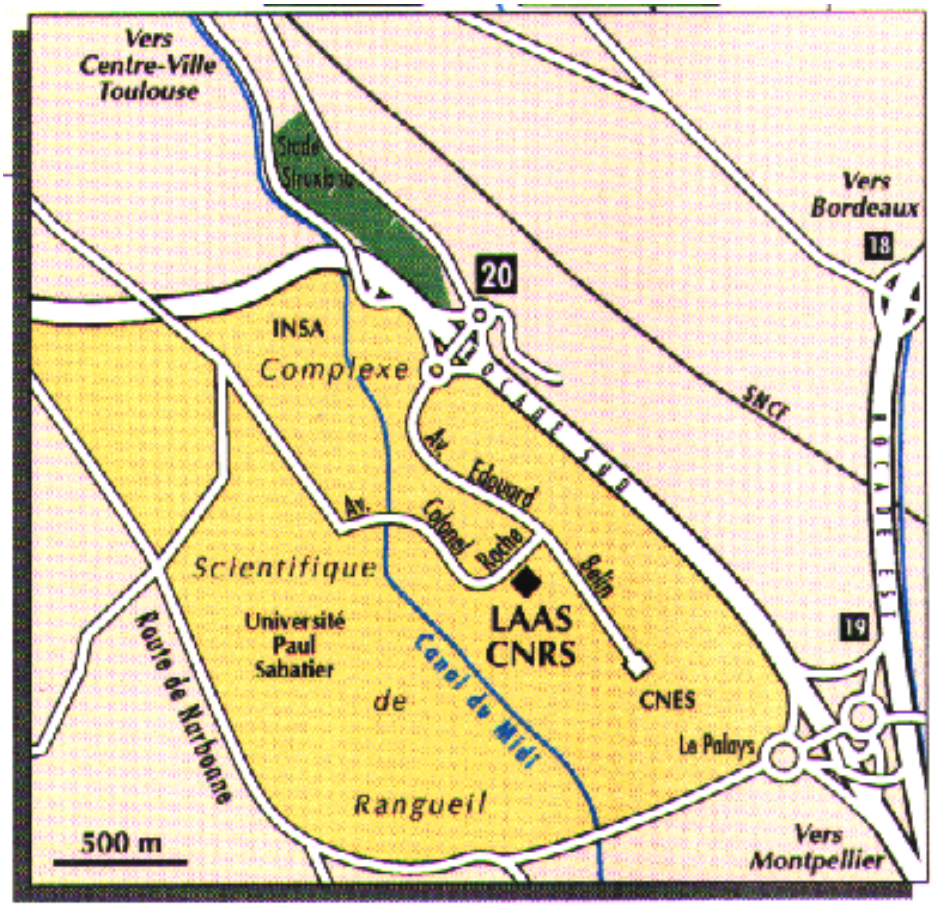
Conference Site Maps

Conference Site Maps

LOCATION OF LAAS IN RELATION TO TOULOUSE



LAAS PLAN

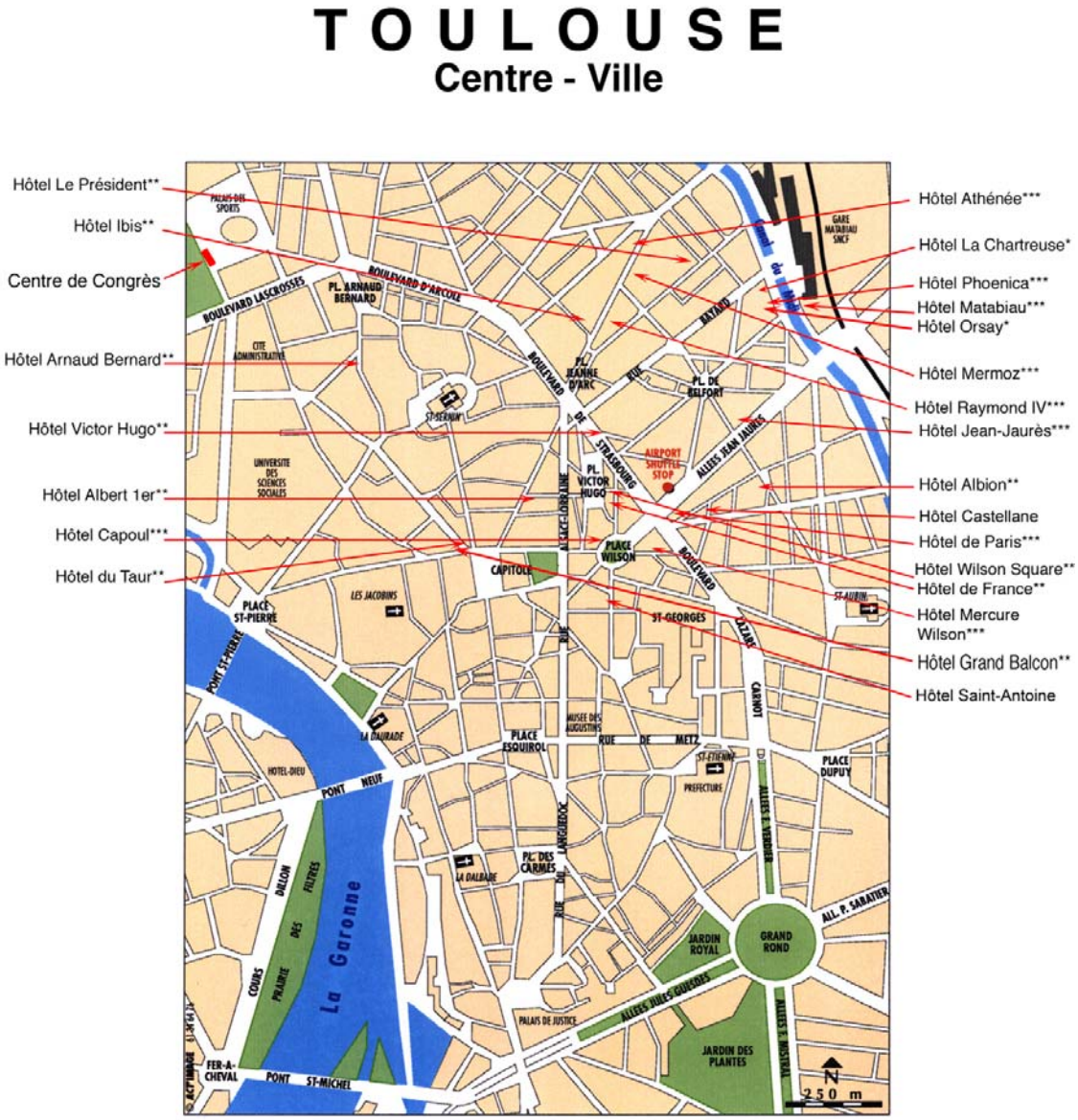


Conference Site Maps

Conference Site Maps

Conference Site Maps

LOCATION OF ALL THE HOTELS



EUROSIS was borne out of discussions with the European Community to set up a new kind of Society, which would be project driven instead of driven by pure membership and conferences.

The aim of the new Society will be to set up topic related Technical Committees which will link directly to European Projects in the field of computer simulation and related areas and to act as a knowledge pool for future European Networks of Excellence, like MOSAIC.

If you would like to receive more information about EUROSIS, please contact

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Email: .....

EUROSIS Info