

===== SIMUL 2011 | Call for Papers =====

CALL FOR PAPERS, TUTORIALS, PANELS

SIMUL 2011: The Third International Conference on Advances in System Simulation

October 23-28, 2011 - Barcelona, Spain

General page: <http://www.iaia.org/conferences2011/SIMUL11.html>

Call for Papers: <http://www.iaia.org/conferences2011/CfPSIMUL11.html>

- regular papers

- short papers (work in progress)

- posters

Submission page: <http://www.iaia.org/conferences2011/SubmitSIMUL11.html>

Submission deadline: May 20, 2011

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Extended versions of selected papers will be published in IARIA Journals:

<http://www.iaiajournals.org>

Please note the Poster Forum and Work in Progress options.

The topics suggested by the conference can be discussed in term of concepts, state of the art, research, standards, implementations, running experiments, applications, and industrial case studies. Authors are invited to submit complete unpublished papers, which are not under review in any other conference or journal in the following, but not limited to, topic areas.

All tracks are open to both research and industry contributions, in terms of Regular papers, Posters, Work in progress, Technical/marketing/business presentations, Demos, Tutorials, and Panels.

Before submission, please check and conform with the Editorial rules:

<http://www.iaia.org/editorialrules.html>

SIMUL 2011 Topics (topics and submission details: see CFP on the site)

Simulation models

Monte Carlo simulation; Statistical analysis of simulation output; Analytical simulation modeling; Discrete event simulation models; Credible simulation models; Multi-objective simulation models; Multisimulation with multiresolution, multistage multimodels; Verification and validation of simulation models; Simulation metamodels; Executable simulation models; Emulation models; Regression models and experimental designs; Kriging metamodeling; Kriging metamodeling in discrete-event simulation; Kriging modeling for global approximation

Simulation methodologies

Sensitivity analysis; Rare-event simulation methodology; Agent-based modeling and simulation; Regenerative steady-state simulation; Simulation-based ordinal optimization; Ontology-based simulation methodology; Simulation component reuse methodology; Two-level simulation methodology; Emulation methodologies; System adaptation simulation; Simulation methodologies for autonomic and autonomous systems; Virtual reality simulation methodologies; Virtualization simulation; Construction simulation methodologies

Sensitivity analysis

Systematic simulation using sensitive analysis; Probabilistic sensitivity analysis; Sensitivity analysis of simulation technologies (Monte Carlo, Streamline, Spatial models, etc.); Domain-oriented sensitivity analysis (optimization, estimation matching, climate); Sensitivity analysis of products features, formalisms, design optimization (systems, code); Assessing the competency of business services (public, health, transportation, etc.); Sensitivity analysis and performance extrapolation; Adjoint transient sensitivity analysis; Causality and sensitivity analysis; Assessing the accuracy of sensitivity analysis

Simulation mechanisms

Composing simulation models; Reusable simulation model; Uncertainty simulation; Continuous-variable simulation optimization; Approximate zero-variance simulation; Probabilistic processes for simulation; Progressive model fitting; Steady-state simulations with initial transients; Merging simulation and optimization; Simulation optimization, stochastic programming and robust optimization; Overlapping variance estimators; Kriging interpolation in simulation; Kriging versus regression analysis; Interpolation; Random simulation; Prediction and simulation; Interpolation /Kriging, Cokriging, Conditional Simulation, and Inverse Distance Weighting/

Model based system quality prediction

Model based prediction of system quality characteristics and their trade-offs; Prediction models; Methods and tools for system quality prediction; Reliability prediction; Security prediction; Risk prediction; Performance prediction; Uncertainty handling in prediction models; Prediction of change impacts on system quality and risk; Quality and trustworthiness of prediction models; Predictability of system quality characteristics; Predictability of dynamic and adaptive systems; Data acquisition methods in system quality prediction; Traceability and maintainability of prediction models; Inference types in prediction models; Experience reports on and application areas for system quality prediction; Empirical studies on system quality prediction

Distributed simulation

Large-scale simulation experiments; Industrial scale simulation; Time aspects in distributed simulation; Resource constraints in distributed simulation; Distributed disaster decision simulation; Simulation for rapid assessment of distributed impacts; Parallel and distributed simulation

Human-in simulation

User-in-the-middle simulations; User-feedback in simulations; User-adaptive simulations; Bioterrorism preparedness simulation; Probabilistic risk assessment; Measurement of situation awareness

Simulations in advanced environments

Simulation in Virtualized systems; Simulation in Cloud environments; Simulations in GRID environments; Simulation in Cognitive systems; Simulation in P2P systems; Simulation in Data Centers; Simulation in Power Distribution Centers; Simulation in micro- and nano-systems; Simulation in Geospatial systems; Geostatistics simulation; Spatial simulation; Simulation in Self-Adaptable systems; Simulation in Ubiquitous systems; Simulation in Underwater Vehicular and Communications systems; Simulations in Mobile and Vehicular systems; Simulation in eHealth systems; Computational fluid dynamics simulations for urban and environmental applications

Practical applications on process simulations

Uncertainty in industrial practice; Simulation for business planning; Application to finance; Logistics simulation; Supply chain simulation; Software reliability simulation; Simulation in vehicular systems /avionics, satellites, terrestrial/; Simulation models for manufacturing; Climate and weather-related simulations; Biological system simulation; Chemical system simulation; Commercial simulation environments; Healthcare simulation; Hospital planning; Simulation-based scheduling; Simulation in warehouse operations; Manufacturing simulation interoperability; Telecommunications simulations /reliability, queuing, fault spreading, virus

contamination/; Cyber-attack modeling and simulation; Sensor fusion simulation

Case studies on social simulation

Group-work interaction simulation; Behavior analysis in simulations; Social need simulations; Simulating urban open spaces; Social decision simulation; Real-time decision making simulation; e-Polling simulation; Validation of simulated real-world; Simulation to predict market behavior; Predictions via similarity-based data-mining; Simulation of groups in e-Government systems; Simulation of urban mobility

Online social simulation

Online social models, social networking; Simulation of conflicts, cooperation, persuasions; Simulation of dynamics, group decisions, emerging behavior and situations; Simulation of interactive games, predictions and distributed tasks; Simulation of 3D online communities, massive online multiplayer, virtual social communities; Life problems simulation (sociology, political science, economics, anthropology, geography, archeology and linguistics); Group innovation and consumption simulation; Applications, techniques, tools, computational frameworks, experiments and lessons

Building simulation

Simulation of building physics; Human simulation of the indoor environment; Civil-oriented and enterprise-oriented simulations; Simulation of building services (lightning, heating, cooling, ventilation, insulation, etc.); Simulation of energy capture and conversion; Simulation of solar buildings, geothermal energy buildings; Simulation for earthquakes, flooding, fire propagation, etc.; Simulation of design practice; Tools and applications to simulate building-related properties and situations

Transport simulation

Transport system models; Airport simulation; Public transport simulation; Merchandise port simulation; Rural transport simulation during harvest time; Shipping transport simulation; Content and volume-based transport simulation; Simulation of traffic control and synchronization; Prediction accuracy of transport simulations; Simulation of transport projects

Warfare simulation

Warfare simulation environments and models; Tactical and strategic warfare simulation; Attack warfare simulation; Urban warfare simulation; Warfare simulation in unknown environment; Underwater, terrestrial, and spatial simulations; Hierarchical control simulation; Warfare gaming

Simulation tools and platforms

Discrete-event simulation software; Commercial off-the-shelf simulation package interoperability; Ontology-based tools for simulation integration; Simulation frameworks for energy-efficient systems; Public system applications; Simulators for business planning; Simulation tools for systems biology; Simulation tools for constructions /bridges, railways, industrial buildings, subways/

Experience report on ready-to-use tools

ShowFlow and XJ technologies; Rockwell Automation and Frontline Systems; SIMULE-Planner, AutoMOD; PMC-Kanban Simulator, Program Portfolio Simulator and Asprova Scheduler; 3D simulator tool-kits; Wolverine Software-SLX; OPNET; OMNET++; NIIST; NS-2; NS-3; ATDI ICS; Qualnet; Dymola; Matlab/Simulink; Open source tools

Committee: <http://www.iaria.org/conferences2011/ComSIMUL11.html>

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