



SIMPAR-2012

<http://www.simpar.org/>

The 3rd
International
Conference on
SIMULATION,
MODELING, and
PROGRAMMING for
AUTONOMOUS ROBOTS

November 5–8
2012
Tsukuba
in JAPAN



Scope

Novel robotics applications driven by research, industry and society call for the development of systems of ever increasing complexity: systems with sliding autonomy; humanoid robots; distributed robots; mobile sensor networks, and so on. But unfortunately, steady improvements in robot hardware have not been matched by corresponding advancements in robot software. Besides fundamental open problems still waiting for sound answers, the development of new robotics applications still suffers from the lack of widely used tools, libraries, and algorithms ready to be incorporated into new projects. Simulation environments are playing a main role in reducing development time and cost of large scale systems. But their use is still regarded by many with skepticism. Seamless migration of code from general purpose simulators to real world systems is still a rare circumstance, due to the complexity of robot, world, sensors, and actuators modeling.

These challenges drive the quest for next generation of methodologies and tools for robot development. The objective of the International Conference on Simulation, Modeling, and Programming for Autonomous Robots (SIMPAR) is to offer a unique forum for these topics and to bring together researchers from academia and industry to identify and solve the key issues necessary to ease the development of increasingly complex robot software, and to boost a smooth shifting of results from simulated to real applications.

Conference Committees

General Chair: Itsuki Noda (AIST, Japan)

Steering Committee:

- Tamio Arai (University of Tokyo, Japan)
- Herman Bruyninckx (Katholieke Universiteit Leuven, Belgium)
- Xiaoping Chen (University of Science and Technology of China)
- Maria Gini (University of Minnesota, USA)
- Enrico Pagello, Founding Chair (University of Padua, Italy)
- Lynne Parker (University of Tennessee, USA)
- Oskar von Stryk (University of Darmstadt, Germany)

Program co-Chairs

- EU: Davide Brugali (University of Bergamo, Italy)
- US: James Kuffner (CMU, USA)
- AP: Noriaki Ando (AIST, Japan)

Topics of interest include, but are not limited to:

- Robot simulation and mathematical modeling of robots
- Reliability, scalability and validation of robot simulation
- Simulated sensors and actuators
- Offline simulation of robot design
- Online simulation with realtime constraints
- Simulation with software/hardware in the loop
- Modeling framework for robots and environments
- Robotic service by ubiquitous sensor network
- Interaction between sensor networks and robots
- Communication infrastructures in distributed robotics and sensors
- Human robot interaction and collaboration
- Multirobot systems
- Software platform and middleware for robotics
- Testing and validation of robot software
- Standardization for robotic services



Important Dates (tentative)

- Deadline for submission of papers:
May 15, 2012
- Proposal for Tutorials/workshops:
April 15, 2012
- Notification:
July 15, 2012
- Submission of final camera-ready-papers:
August 15, 2012

