

# CALL FOR PAPERS

## Robotics: Science and Systems 2008

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

ETH Zurich, Switzerland, June 25–28, 2008

**Description:** The 2008 Robotics: Science and Systems Conference will bring together researchers working on algorithmic or mathematical foundations of robotics, robotics applications, and analysis of robotic systems. High quality, original papers are solicited in all areas of robotics. The final program will be the result of a highly selective review process designed to include the best work of its kind in every category. The conference will be single track to allow attendees an opportunity to experience the best research in all areas of robotics. The program will include invited talks as well as oral and poster presentations of refereed papers. The main conference (June 25-27, 2008) will be followed by one day of workshops.

All presented papers will be published in the RSS proceedings by MIT Press, and will also be freely available for download at: <http://www.roboticsproceedings.org/>. The internet proceedings will also include video clips that clarify the results of the papers. As in previous years, efforts are underway to make RSS affordable, particularly for student attendees.

### Organizing Committee

General Chair:	Oliver Brock (UMass Amherst)
Program Chair:	Jeff Trinkle (RPI)
Local Arrangements Chairs	Brad Nelson and Roland Siegwart (ETH)
Workshop Chair	Charlie Kemp (GaTech)
Publicity Chair	Andrew Davison (Imperial College)
Publications Chair	Fabio Ramos (Sydney)
Web Masters	Ralf Kastner, Rudolf Triebel (ETH)

### Area Chairs:

Antonio Bicchi (U Pisa)	Karl Bohringer (U Washington)
Jaydev P. Desai (U Maryland)	Hugh Durrant-Whyte (U Sydney)
Shin-ichi Hirai (Ritsumeikan U)	Atsushi Konno (Tohoku U)
Kevin Lynch (Northwestern)	Yoky Matsuoka (U Washington)
Michael McCarthy (UC Irvine)	Jose Neira (U Zaragoza)
Giuseppe Oriolo (U Rome)	Nick Roy (MIT)
Thierry Simeon (LAAS-CNRS Toulouse)	Metin Sitti (CMU)
Frank van der Stappen (U Utrecht)	Kazuhito Yokoi (AIST)

### Important Dates:

Paper submissions:	Jan 15, 2008, 23:59:59 PST (firm)
Video submissions:	Jan 17, 2008, 23:59:59 PST
Rebuttal phase:	Mar 7–14, 2008, 23:59:59 PST
Notification:	Apr 15, 2008
Conference:	Jun 25–28, 2008

**Submissions:** Papers containing original and unpublished work are solicited in all areas of robotics, including (but not limited to) the following:

- Mechanisms: Design, Humanoids, Hands, Legged Systems, Snakes, Novel Actuators, Reconfigurable Robots, MEMS/NEMS, Micro/Nanobots, Biomimetic Robotics
- Manipulation: Kinematics, Dynamics, Control, Contact Modeling, Grasp Synthesis, Dexterous Manipulation, Assembly, Object Modeling
- Human-Robot Interaction and Human Centered Systems: Brain-Machine Interfaces, Haptics, Tactile Interfaces, Telerobotics, Human Augmentation, Assistive Robots, Robots and Art
- Distributed Systems: Sensor Networks, Multi-Robot Systems, Networked Robots, Robot Soccer
- Mobile Systems and Mobility: Mapping, Localization, SLAM, Collision Avoidance, Exploration, Mobile Robot Control, High-Speed Navigation
- Applications: Underwater Robotics, Aerial/Space Robotics
- Medical Robotics: Robot-assisted procedures, Smart surgical tools, Rehabilitation robotics, Interventional therapy, Image-guided procedures, Cell manipulation, Cellular-scale interventions, Surgical simulation, Soft-tissue modeling, Telesurgery
- Robot Perception: Vision, Remote Sensing, Tactile Perception, Range Sensing
- Planning and Algorithms: Motion Planning, Mission Planning, Coordination, Complexity and Completeness, Computational Geometry, Robotics and Molecular Biology, Simulation
- Estimation and Learning for Robotic Systems: Reinforcement Learning, Bayesian Techniques, Graphical Models, Imitation Learning, Programming by Demonstration, Diagnostics

**Paper Format:** Papers may be up to eight pages long, including figures and references, using 10 point or larger font. All text and figures must fit within a 9 inch by 6.5 inch rectangle on a page in double-column format. Submissions violating these guidelines will not be reviewed. A LaTeX template is available at: <http://www.roboticsconference.org/submissions.shtml>. Authors should take care not to reveal their identities in their paper and video submissions since reviewing is double-blind.

**Video Submissions:** Authors may submit videos to clarify the results in their papers. Because of the bandwidth required to submit videos, authors may submit videos until Jan 17th, 2008, 23:59:59 PST, 48 hours after the paper submission deadline. Authors should take care not to reveal their identities in their video submissions since the reviewing is double-blind.

**Review Criteria:** Submissions will be refereed on the basis of technical quality, novelty, significance, and clarity. Each submission will be thoroughly reviewed by at least three program committee members. Reviews will be double-blind. A rebuttal period will allow authors an opportunity to respond to the reviews. Submissions, reviews, and the replies of the authors will then be discussed at a meeting that all area chairs will attend. There will be an opportunity after the meeting for authors to revise accepted manuscripts.

**Special Journal Issues:** After RSS concludes, the best papers will be invited to be expanded and submitted to a special issue of the International Journal of Robotics Research and a special issue of Autonomous Robots. The rigorous review process of RSS will expedite journal publication.

**Policy on Multiple Submissions:** RSS will not accept any paper which, at the time of submission, is under review for publication in a book, journal, proceedings, or other archival medium, nor will it accept papers that have been published or accepted for publication in any archival medium. Authors are also expected not to submit their papers elsewhere during the RSS reviewing period. These restrictions apply only to journals and conferences, not to workshops and similar specialized presentations with a limited audience and without archival proceedings. Authors are required to indicate any such potential conflict in a footnote on the first page of the submission.