



14TH INTERNATIONAL CONFERENCE ON ADVANCED ROBOTICS

Munich, Germany

June 22nd to 26th, 2009

<http://www.icar2009.org>

Sponsored by the German Robotics Society (DGR)

Technically Co-sponsored by IEEE Robotics and Automation Society (RAS)

ICAR 2009 Workshop June 22, 2009 – Munich, Germany

Title

Benchmarking in Mobile Robotics – State of the Art, Open Challenges, and Research Roadmap –
A joint RoSta and RAWSEEDS work shop

Description: This work shop is intended as a platform for discussions about actual work on benchmarking in mobile robotics and about further steps inside the community and in cooperation with the European Commission. Starting with a few initiating presentations there will be two panel discussions about central tools and guidelines for benchmarking and new approaches and joint activities (read it as “are we ready for a Noe?”). The main motivation for this work shop is the lack of standards for benchmarking in the area of mobile robotics. There are a few approaches to overcome this problem and it is time to focus the work and define a central platform for the work of the community and the distribution of the results, i.e., good experimental methodologies and benchmarking. Benchmarking will become a demand in future calls from the European Commission, it needs to be discussed how the community can influence this process and what kind of tools can be developed to reduce the individual effort of each member of the community. Objectives are to define a central tool for future work and dissemination, define guidelines for both the community and the European commission, generate new links between existing approaches and define new approaches and proposals to the EC.

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Target audience: Scientists dealing with mobile robotics and related areas in general and scientists working on benchmarking in special. Representatives from mobile robotics SMEs with an interest on benchmarks for their products.

Work shop organizers: Kai Pfeiffer, Fraunhofer IPA, Germany
Martin Hägele, Fraunhofer IPA, Germany
Matteo Matteucci, Politecnico di Milano, Italy
Domenico Sorrenti, Università degli Studi di Milano-Bicocca

Speakers: Kai Pfeiffer, Fraunhofer IPA, Germany
Matteo Matteucci, Politecnico di Milano, Italy
Domenico Sorrenti, Università degli Studi di Milano-Bicocca
Nicola Tomatis, BlueBotics SA, Switzerland
Fabio Bonsignorio, Heron Robots, Italy
Viola Schiaffonati, Politecnico di Milano, Italy

Program

9:00	Welcome
9:05	Presentation of RoSta final results (<i>Kai Pfeiffer</i>)
9:35	Presentation of RAWSEEDS actual work (<i>Matteo Matteucci</i>)
10:05	The robot design process (<i>Martin Hägele</i>)
10:30	Coffee break
11:00	Why benchmarking? - A commercial point of view (<i>Nicola Tomatis</i>)

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- 11:30 To what extent are robotic experiments experiments?
On the utility of looking at the philosophy of science
(*Viola Schiaffonati*)
- 12:00 Does robotics need an epistemology?
The road to better experimental practice and reporting in
robotics
(*Fabio Bonsignorio*)
- 12:30 Lunch
- 14:00 Panel discussion 1: Central tool and guidelines for
benchmarking
(*Kai Pfeiffer, Matteo Matteucci, Olivier Michel*)
- 15:30 Coffee break
- 16:00 Panel discussion 2: New approaches and joint activities
(*Fabio Bonsignorio, Domenico Sorrenti, Martin Hägele*)
- 17:30 Discussion and closing

Expected number of participants: >20