



## **CALL FOR PAPERS for the ICRA 2010 Workshop on Mobile Manipulation**

**When:** Friday, May 7, 2010

**Where:** ICRA 2010 Anchorage, Alaska, USA.

**Website:** <http://www.mobilemanipulation.org>

**Submission deadline:** March 5, 2010

The aim of this workshop is to discuss the state of the art in mobile manipulation research. We are particularly interested in the "mobile" aspect of manipulation where robots need to move around in cluttered environments to manipulate everyday objects. Robust, reliable mobile manipulation is critical for robotic applications in the home, health care and retail industries. We encourage new ideas in autonomous, semi-autonomous and tele-operated systems that integrate perception, planning and control for mobile manipulation in everyday environments shared with humans. We encourage submissions that deal with both theoretical and practical aspects of mobile manipulation: practical robotic systems that demonstrate reliable, robust behavior and state of the art techniques and algorithms for improving the performance of these systems.

The workshop will include invited talks on the state of the art in different areas of mobile manipulation research. The list of invited speakers includes:

- \* Oussama Khatib (Stanford, USA)
- \* Henrik Christensen (GA Tech, USA)
- \* Brian Gerkey (Willow Garage, USA)
- \* Alin Albu-Schaeffer (DLR, Germany)
- \* Charlie Kemp (GA Tech, USA)
- \* Oliver Brock (TU Berlin, Germany)
- \* Siddhartha Srinivasa (Intel, USA)

This workshop is the most recent in a series of workshops at RSS, ICRA and IROS centered on manipulation. It complements a set of events at ICRA 2010 focused on manipulation including the ICRA 2010 Best Practice Algorithms in 3D Perception and Modeling for Mobile Manipulation Workshop and the ICRA 2010 Manipulation Challenge.

### **Submissions**

We solicit paper submissions, optionally accompanied by a video, both of which will be reviewed (not double-blind) by the program committee. The workshop will feature a combination of oral and poster presentations for accepted papers along with a poster spotlight session.

Accepted papers and videos will be archived at the Internet Archive. If there is sufficient interest, we will pursue publication of a special journal issue to include the best papers.

Topics of interest include (but are not limited to):

- \* Mobile manipulation systems that demonstrate robust reliable manipulation
- \* Visual, haptic or auditory perception and feedback for manipulation
- \* High level task planning
- \* Motion planning and control for complex manipulation tasks
- \* Grasp planning
- \* Semi-autonomous, human-in-the-loop control
- \* Safe interaction with humans
- \* Learning mobile manipulation behaviors
- \* Object recognition and pose estimation
- \* Compliant control for manipulation
- \* Humanoid manipulation systems

Papers should be in PDF, conform to the ICRA regular paper style guidelines, and be a maximum of 8 pages in length (shorter papers are welcome). Videos should be in the MPEG format, 3-5 minutes in length, and easily viewed with free video players (please try playing your video on a couple of different machines before submitting).

Email submissions to: [icra-mobile-manipulation-2010](mailto:icra-mobile-manipulation-2010@willowgarage.com) at [willowgarage.com](http://willowgarage.com). Please do not attach video files to email; include a URL instead.

### **Important Dates**

- \* Submission deadline: March 5, 2010
- \* Notification of acceptance: March 26, 2010

### **Organizers**

- \* Wolfram Burgard, University of Freiburg
- \* Patrick Pfaff, KUKA Roboter GMBH
- \* Sachin Chitta, Willow Garage
- \* Kris Hauser, Indiana University
- \* Oliver Brock, TU Berlin