



Tentative schedule

09:00 - 09:05 Welcome from the organizers

09:05 - 10:15 Task/grasp frames

- 09:05 [A Sensor-based Approach for Physical Interaction Based on Hand, Grasp and Task Frames](#), Mario Prats, Pedro J. Sanz, Angel P. del Pobil
- 09:30 [Grasp Synthesis in Cluttered Environments for Dexterous Hands](#), Dmitry Berenson, Siddhartha Srinivasa
- 09:55 Discussion of task/grasp frames

10:15 - 10:35 Break with refreshments

10:35 - 12:10 Learning

- 10:35 [Interactive Learning of the Acoustic Properties of Objects by a Robot](#), Jivko Sinapov, Mark Weimer, Alexander Stoytchev
- 11:00 [Body Scheme Learning and Life-Long Adaptation for Robotic Manipulation](#), Juergen Sturm, Christian Plagemann, Wolfram Burgard
- 11:25 [Learning to Open New Doors](#), Ellen Klingbeil, Ashutosh Saxena, Andrew Y. Ng
- 11:50 Discussion of learning

12:10 - 02:00 Lunch

02:00 - 02:45 [Keynote lecture: Rüdiger Dillmann](#)

02:45 - 03:45 Poster/Demo Session (refreshments, 3:20 - 3:40)

- [Using Manifolds for Dexterous Hand Control](#), Jan Steffen, Robert Haschke, Helge Ritter
- [Designing Ultra-Low Cost Asymmetric Grippers for Human Tasks](#), Nikhil Hemnani, Dale Wick, Navdeep Kaur
- [Two-Fingered Grasp Planning for Randomized Bin-Picking](#), Donna Dupuis, Simon Leonard, Matthew Baumann, Elizabeth Croft, Jim Little
- Demo: [DLR Lightweight Robots - Soft Robotics for Manipulation and Interaction with Humans](#), Sami Haddadin, Andreas Stemmer, Paolo Robuffo Giordano
- Demo: Shadow Dexterous Hand, Armando De La Rosa
- A Natural Language Instruction System for Humanoid Robots Working in Human Environments, Neo Ee Sian
- RobotCub: An Open Framework for Research in Embodied Cognition, Lorenzo Natale

03:45 - 05:20 Robust manipulation

- 03:45 [Behaviors for Robust Door Opening and Doorway Traversal with a Force-Sensing Mobile Manipulator](#), Advait Jain, Charles C. Kemp
- 04:10 [Vision-based grasping of unknown objects to improve disabled people autonomy](#), Anthony Remazeilles, Claire Dune, Marchand Eric, Christophe Leroux
- 04:35 [How Can Robots Succeed in Unstructured Environments?](#), Dov Katz, Jacqueline Kenney, Oliver Brock
- 05:00 Discussion of robust manipulation

05:20 - 05:30 Lightning talks (short talks ≤ 4 minutes each, sign up during the day, time allotted will depend on demand and review by the organizers)

05:30 - 05:50 The future of robot manipulation

- What are possible and relevant near-term applications?
- What are the engineering and scientific challenges?

05:50 - 06:20 Planning for next year's workshop