



Programme for Dagstuhl Seminar 06231
Towards Affordance-Based Robot Control

June 5 – June 9, 2006

Schloss Dagstuhl
Wadern, Germany



TUESDAY, JUNE 6

Day Chair: Erol Sahin

- 09:00** Erich Rome:
Opening
- 09:15** Joachim Hertzberg:
Dagstuhl Rules
- 09:25** -- Long Talk --
Erich Rome:
Cognitive Systems, affordances & the MACS project
- 10:30** **COFFEE BREAK**
- 10:45** -- Short Presentations (Architecture) --
Erol Sahin:
To afford or not to afford: From a formalization of affordances to an affordance-based control architecture
- 11:15** Gordon Bernedo-Schneider:
Cognitive modeling of motivations for artificial agents
- 11:45** Alessandro Saffiotti:
PEIS ecologies: Ambient intelligence meets autonomous robotics
- 12:15** **LUNCH BREAK**
- 14:15** -- Long Talk --
Louise Stark:
Function-based object recognition
- 15:45** **COFFEE BREAK**
- 16:15** Erich Rome:
Work groups introduction
- 16:20** All:
-- **Work Groups Session 1** --
- 18:00** **DINNER**



WEDNESDAY, JUNE 7

Day Chair: Joachim Hertzberg

- 09:00** **— Long Talk —**
Martin Raubal:
**Agent-based simulation of human wayfinding:
A perceptual model for unfamiliar buildings**
- 10:30** **COFFEE BREAK**
- 10:45** **— Short Presentations (Space) —**
Sumit Sen:
Use of affordances in geospatial ontologies
- 11:15** Reinhard Moratz:
**Cognitive modeling of spatial reference for human-robot
interaction**
- 11:45** Kai Lingemann, Andreas Nüchter:
On perceiving drivability
- 12:15** **LUNCH BREAK**
- 14:15** **Work Groups**
- 15:45** **COFFEE BREAK**
- 16:15** **— Long Talk —**
Michael Beetz:
Automatic sensor-based analysis of intentional activity
- 18:00** **DINNER**



THURSDAY, JUNE 8

Day Chair: Erich Rome

- 09:00** **— Long Talk —**
Barbara Webb:
Using robots to model biological perceptual systems
- 10:30** **COFFEE BREAK**
- 10:45** **— Short Presentations (Perception) —**
Simone Frintrop:
Models of human visual attention and their applications in robotics
- 11:15** Melanie Sutton:
Function-based reasoning for goal-oriented image segmentation
- 11:45** Krzysztof Janowicz:
The Role of affordances in similarity measurements
- 12:15** **LUNCH BREAK**
- 14:15** **Work Groups**
- 15:45** **COFFEE BREAK**
- 16:15** **— Long Talk —**
Jeremy L. Wyatt:
Learning about actions, goals, and objects
- 18:00** **DINNER**



FRIDAY, JUNE 9

Day Chair: Georg Dorffner

- 09:00** — **Short Presentations (Learning)** —
Lucas Paletta:
Affordance based modeling of perception in the context of reinforcement learning
- 09:30** Elin-Anna Topp:
Interactive learning of concepts and spatial representations
- 10:00** NN ÖFAI:
Learning of interaction possibilities
- 10:30** **COFFEE BREAK**
- 10:45** **Work Groups Presentation**
- 11:45** **Final Discussion & Wrapup**
- 12:15** **LUNCH BREAK**
- 14:15** **DEPARTURE**