Agenda

**9.30** Serge Kernbach (University of Stuttgart)

**9.45** Niko Michiels (University of Tübingen)
„Important Questions Biologists Can Only Answer with Swarm Robots“

**10.15-10.30 Coffee Break**

**Session on Self-Assembling and Collective Actuation**

**10.30** Lutz Winkler (Karlsruhe Institute of Technology)
„The Robot Formation Language“

**11.00** Benjamin Girault (University of Stuttgart)
„Heterogeneous Constraint-based Assembling“

**11.30** Guy Baele, Yao Yao (Flanders Institute for Biotechnology)
„Application of Gene Regulatory Networks for Self-regulating Assembling (tbd)“

**11.45** Sergii Stepanenko, Eugen Meister (University of Donezk, University of Stuttgart)
„Development and Research of the Control System for the Adaptive Robot“

**12.15** Paul Levi (University of Stuttgart)
„Synergetics Agents for Assembling“
13.00-14.00 Lunch

Session on Robot Platforms, Networked and Underwater Robotics

14.00 Humza Raja (FRAUNHOFER)
„Energy-based Homeostasis of a Reconfigurable Robot (tbd)“

14.30 Alexander Kettler (Karlsruhe Institute of Technology)
„The Swarm Robot Wanda“

15.00 Oliver Zweigle, Daniel Di Marco (University of Stuttgart)
„RoboEarth – Knowledge Database for Robots“

15.30-15.45 Coffee Break

15.45 Donny Sutantyo, Tobias Dipper (University of Stuttgart)
„Challenges of Collective Odometry for Underwater Swarm Robotics“

16.15 Dmitrii Kryvyukov, Eugen Meister (University of Donetsk, University of Stuttgart)
„Development of the Artificial Skin“

16.45-18.00 Panel Discussion, Brainstorming, Research Proposals

- What are challenges of collective robotics for next years?
- Bio-chemo- soft-: material research or mechatronics?
- FP7, FP8, FET Flagships, DFG: strategy of local community