ZiF Zentrum für interdisziplinäre Forschung
Center for Interdisciplinary Research
Universität Bielefeld

ZIF RESEARCH GROUP WORKSHOP
    COGNITIVE BEHAVIOR OF HUMANS, ANIMALS, AND MACHINES:
    SITUATION MODEL PERSPECTIVES

Learning for flexible, context-sensitive behavior

Organizers: Helge Ritter (Bielefeld, GER), Werner Schneider (Bielefeld, GER),
        Josefine Albert (Bielefeld, GER), and Shiau-Chuen Chiou (Bielefeld, GER)

12 – 13 March 2020

WEDNESDAY , 11 MARCH 2020	
19.00	Opening reception in the Fellow room (pretzels and nuts)
THURSDAY, 12 MARCH 2020	
9.15 – 9.30	Introduction
9.30 – 10.10	Helge Ritter: **What situation models can do for learning**
10.10 – 10.50	Oliver Brock: **How can we find the secret to generating robust, general, and adaptable behavior**
10.50 – 11.20	*Coffee/tea break*
11.20 – 12.00	Samuel Ritter: **Episodic meta-reinforcement learning: an integrative theory of reward driven learning**
12.00 – 12.40	Georg Martius: **Control what you can - intrinsically motivated hierarchical reinforcement learning**
12.40 – 14.00	*Lunch at ZiF*
14.00 – 14.40	Barbara Hammer: **Attacking and explaining machine learning models**
14:40 – 15.20	Andrew Melnik: **Learning of rewarding subgoals in context-sensitive environments**
15.20 – 15.50	*Coffee/tea break and cake*
15.50 – 16.30	Robert Goldstone: **Using context to constrain the construction of new descriptions during open-ended induction**
16.30 – 17.10	Roland Pfister: **Action-effect learning**
17.10 – 17.40	Discussion
18.00 – 20:00	*Dinner at the ZiF*

FRIDAY , 13 MARCH 2020

9.30 – 10.10	Tamim Asfour: **Engineering humanoids with motion intelligence**
10.10 – 10.50	Sven Behnke: **Perception and planning for cognitive robots**
10.50 – 11.20	*Coffee/tea break*
11.20 – 12.00	Verena Hafner: **Sensorimotor learning in developing artificial agents**
12.00 – 12.40	Kenji Doya: **How can the brain connect predictors and actors on the fly?**
12.40 – 14.30	*Lunch at ZiF*
14.30 – 15.10	Michael Herzog: **Situation models and their neural correlates**
15:10 – 16:00	Discussion
16.00 – 16.30	*Coffee/tea*
17.00	*Dinner downtown (self-paid)*