

Hanse



Wissenschaftskolleg

# 5<sup>TH</sup> EUROPEAN NEURO-IT and Neuroengineering School - Cognition & Action -

**Delmenhorst, July 15 – 21, 2007**

## **Organizers**

Prof. Dr. med. Andreas K. Engel  
University Medical Center Hamburg-Eppendorf  
Prof. Dr. Alois Knoll  
Technical University of München  
Prof. Dr. Rolf Pfeifer  
University Zürich

## **Sponsored by**

EU-Network euCognition  
EU-Network NEURO-iT

Hanse



Wissenschaftskolleg

Lehmkuhlenbusch 4  
27753 Delmenhorst

## Sunday, July 15

**18:30**

20:00 – 21:30

Pfeifer

### ***Reception and Icebreaker***

Opening Lecture: Morphological computation – connecting brain, body, and environment

## Monday, July 16

09:00 – 09:30

“Datablitz”-Session

09:30 – 10:30

Averbeck

Activity in prefrontal cortex during dynamic selection of action sequences

**10:30 – 11:00**

### ***Coffee break / Posters***

11:00 – 12:00

Körding

Normative models in motor control

**12:00 – 13:30**

### ***Lunch***

13:30 – 14:30

Schwartz

Useful signals from motor cortex

**14:30 – 15:00**

### ***Coffee break / Posters***

15:00 – 17:00

Averbeck (I)

Probabilistic representations in cortex

15:00 – 17:00

Körding (II)

Normative models in neuroscience

15:00 – 17:00

Schwartz (III)

Behavior as motor output

17:00 – 18:00

Posters

18:00 – 19:00

Evening Discussion

**19:30 – 21:00**

### ***Dinner at the City Hotel***

21:00

Bowling at Jutebowl

## Tuesday, July 17

09:00 – 09:30

“Datablitz”-Session

09:30 – 10:30

König

Information foraging and overt attention

**10:30 – 11:00**

### ***Coffee break / Posters***

11:00 – 12:00

Bar-Gad

Stimulating the brain: the neglected part of neural interfaces

**12:00 – 13:30**

### ***Lunch***

13:30 – 14:30

Goebel

BOLD communications and neurofeedback

**14:30 – 15:00**

### ***Coffee break / Posters***

15:00 – 17:00

König (I)

Understanding receptive fields

15:00 – 17:00

Bar-Gad (II)

Mechanisms of deep brain stimulation

15:00 – 17:00	Goebel (III)	Real-time fMRI: Principles, possibilities and limitations
17:00 – 18:00		Posters
18:00 – 19:00		Evening Discussion
<b>19:00 – 20:00</b>		<b>Dinner</b>
20:00		Sports: soccer, table tennis, volleyball....

## Wednesday, July 18

09:30 – 10:30	Dario	Gesture and Facial Expressions for Emotional Human-Robot Interaction
<b>10:30 – 11:00</b>		<b>Coffee break</b>
11:00 – 12:00	Scherberger	Hand grasping activity in premotor and parietal cortex
<b>12:00 – 13:30</b>		<b>Lunch</b>
13:30 – 14:30	Findlay	Eye movements and visual search
14:30 – 16:30	Dario (I)	Gesture and Facial Expressions for Emotional Human-Robot Interaction
14:30 – 16:30	Scherberger (II)	Cortical motor planning
14:30 – 16:30	Findlay (III)	Eye movements and visual search
<b>16:30</b>		<b>Departure to Bad Zwischenahn Boattrip to Dreierbergen and Dinner at the restaurant Fährkroog</b>
18:30 – 19:30		Evening Discussion (at the restaurant)
<b>19:30</b>		<b>Dinner at the restaurant Fährkroog</b>
22:00		Return to the Hotel

## Thursday, July 19

09:00 – 09:30		“Datablitz”-Session
09:30 – 10:30	Dautenhahn	Challenges in Human-Robot Interaction: Socially Assistive Robots
<b>10:30 – 11:00</b>		<b>Coffee break / Posters</b>
11:00 – 12:00	Ziemke	On the role of emotion in embodied cognition
<b>12:00 – 13:30</b>		<b>Lunch</b>
13:30 – 14:30	Ijspeert	Control of locomotion: from biology to robotics and back
<b>14:30 – 15:00</b>		<b>Coffee break / Posters</b>
15:00 – 17:00	Dautenhahn (I)	Companions, Friends, Tools or Toys? – Roles of Robots in Human Society

15:00 – 17:00	Ziemke	(II)	Do robots need emotions?
15:00 – 17:00	Ijspeert	(III)	Locomotion control in animals and robots
17:00 – 18:00			Posters
18:00 – 19:00			Evening Discussion
<b>19:00 – 20:00</b>			<b>Dinner</b>

## Friday, July 20

09:30 – 10:30	di Paolo		Evolutionary robotics: A tool for thinking about autonomy, agency and social interaction
<b>10:30 – 11:00</b>			<b>Coffee break</b>
11:00 – 12:00	Knoblich		From mirroring to joint action
<b>12:00 – 13:30</b>			<b>Lunch</b>
13:30 – 14:30	Singer		Brain mechanisms of empathy
<b>14:30 – 15:00</b>			<b>Coffee break</b>
15:00 – 17:00	di Paolo	(I)	Enaction: Asking the difficult questions facing embodied cognition.
15:00 – 17:00	Knoblich	(II)	Competing (?) theoretical approaches to joint action
15:00 – 17:00	Singer	(III)	Does empathy for pain involve a sensory component or not?
17:00 – 18:00			Evening Discussion
<b>19:00</b>			<b>Dinner and Farewell Party at the restaurant Backenköhler/Stenum</b>
1:00			Return to the hotel

## Saturday, July 21

Departure