

Venue:

Zentrum für neurowissenschaftliche Innovation und Technologie  
Leipziger Str. 44 Haus 65 (ZENIT)  
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Otto-von-Guericke University,  
Magdeburg

## 1st Workshop on Brain Machine Interfacing

26-27th of February 2010

Workshop Program

Organized by PD Dr. Jochem Rieger and  
Prof. Dr.-Ing. Hermann Hinrichs



MEDIZINISCHE  
FAKULTÄT

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**Friday, February  
26<sup>th</sup>**

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9:00-9:30 *Welcome and introduction*  
Hans-Jochen Heinze (University of  
Magdeburg, Dept. of Neurology) & Robert  
T. Knight (UC Berkeley, Helen Wills  
Neuroscience Institute)

9:30-10:10 *Introductory lecture*  
Jose del R. Millan (Ecole Polytechnique  
Federale de Lausanne)

10:10-10:30 Coffee break (20 min)

10:30-11:10 *Arm position decoding from subdural  
electrocorticographic signals is context specific.*  
Lavi Secundo (UC Berkeley, Helen Wills  
Neuroscience Institute)

11:10-11:50 *Approaches to neural prosthetic systems for  
speech.*  
Brian Pasley (UC Berkeley, Helen Wills  
Neuroscience Institute)

11.50 – 12.50 Lunch break

12:50-13:30 *Decoding of cognitive states.*  
Jochem Rieger (University of Magdeburg,  
Dept. of Neurology; UC Berkeley, Helen  
Wills Neuroscience Institute), Hermann  
Hinrichs (University of Magdeburg, Dept.  
of Neurology)

13:30-14:10 *Finger movement decoding using MEG.*  
Fanny Quandt (University of Magdeburg,  
Dept. of Neurology; UC Berkeley, Helen  
Wills Neuroscience Institute)

14:10-14:50 *Informative signals for movement/non-  
movement discrimination in ECoG.*  
Christoph Reichert (University of  
Magdeburg, Dept. of Neurology)

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14:50-15:50 Coffee break and open discussion (60 min)

15:50-16:30 *Comparing invasive and non-invasive EEG as  
candidate signals for brain-machine  
interfacing.*  
Tonio Ball (University of Freiburg, Dept. of  
Neurosurgery)

16:30-17:10 *Towards an interactive neuroprosthesis for the  
auditory cortex.*  
Frank Ohl (Leibniz Institute for  
Neurobiology, Magdeburg)

17:10- Discussion of the day

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Saturday, February  
27<sup>th</sup>

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9:00-9:40      *Approaches to integrating Virtual Reality in  
Brain Computer Interfaces.*  
Matthias Kennel (Fraunhofer,  
Magdeburg)

9:40-10:20      *BMI for stroke patients.*  
Michael Görtler (University of  
Magdeburg, Dept. of Neurology)

10:20-10:40      Coffee break (20 min)

10:40-11:20      *Using electrocorticogram signals from  
Epilepsy patients for voluntary brain  
regulation and communication.*  
Guido Widmann (University of Bonn,  
Dept. of Neurology)

11:20-12:00      *Decoding of Attention from Cortical Gamma  
Band Activity - Potential Applications in  
Neuroprosthetics?*  
Klaus Pawelzik (University of Bremen,  
Dept. of Theoretical Neurophysics)

12:00-13:00      Lunch break (60 min)

13:00-13:40      *Noninvasive decoding of mental states.*  
Bejamin Blankertz (Technical University,  
Berlin)

13:40-14:20      *Towards high electrode density grids for  
electrocorticographic recordings.* Steffen  
Dörner (University of Magdeburg, Dept.  
of Microsystems Engineering)

14:20-      Final discussion

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