

Workshop on Statistics and Neuroimaging 2011

Berlin, November 23 – 25, 2011

Erhard-Schmidt-Hörsaal, Weierstrass-Institute for Applied Analysis and Stochastics

Wednesday, November, 23 2011 ¹	
13:00 – 13:45	Registration
13:45 – 14:00	Opening
14:00 – 14:50	H.-U. Voss (Weill Cornell Medical College) Magnetic resonance imaging of structural and functional connectivity of the brain
14.50 – 15:20	R. Heidemann (MPI for Human Cognitive and Brain Sciences) Ultra-high spatial and angular resolution in diffusion MRI
15:20 – 16:00	Coffee break
16:00 – 16:30	S. Mohammadi (Wellcome Trust Center for NeuroImaging, UCL) Artefact correction in DTI (ACID)
16:30 – 17:00	Ch. Hege (ZIB Berlin) Light-Microscopy-based Anatomical Reconstruction, Simulation and Analysis of Cortical Neural Networks
17:00 – 17:20	M. Reuter (Martinos Center for Biomedical Imaging, MIT) Unbiased longitudinal processing of structural MRI in FreeSurfer
19.00	Get-Together

¹The talk of R. Mekte (PTB) has been cancelled due to an illness of the speaker

Thursday, November 24, 2011²

9:30 – 10:20	Ch. Lenglet (University of Minnesota) Computational diffusion MRI and subject-specific connectome
10:20 – 10:50	Coffee break
10:50 – 11:20	R. Yotter (FSU Jena) Surface modeling and analysis of structural MRI data
11:20 – 11:50	R. Duits (Eindhoven University of Technology) Enhancement of Crossing Fiber-structures in DW-MRI
11:50 – 12:10	S. Becker (WIAS Berlin) Model-free structural adaptive smoothing of diffusion weighted images
12:10 – 13:30	Lunch

²The talk of M. Tittgemeyer (MPI for Neurological Research) has been cancelled due to an illness of the speaker

Thursday, November 24, 2011

13:30 – 14:00	B. Burgeth (University Saarbrücken) PDE-based image processing for matrix fields
14:00 – 14:30	V. Schmid (LMU München) Modelling dynamic images using hierarchical Bayes models
14:30 – 14:45	Short break
14:45 – 15:15	J. Polzehl (WIAS Berlin) Modeling the orientation distribution function by mixtures of angular central Gaussian distributions
15:15 – 15:45	B. Whitcher (Mango Solutions, Imperial College London) Quantitative Medical Image Analysis Using R
15:45 – 16:05	Ch. Rügge (University Göttingen) On the design of regularized Newton-type methods for all-at-once reconstructions from HARDI datasets
16:05 – 16:40	Poster Session / Coffee break
16:40 – 17:10	J. Clayden (UCL) Imaging connectivity: Statistical modelling and the wiring of the brain
17:10 – 17:40	I. Aganj (Martinos Center for Biomedical Imaging, MIT) A Hough transform approach to multiple-subject diffusion MRI tractography
19:00	Conference Dinner

Friday, November 25, 2011³

09:30 – 10:20	M. Deppe (University Münster) Why the neurologist wants more than one DTI: Quantitative assessment of microstructural brain tissue alterations
10:20 – 10:50	Coffee break
10:50 – 11:20	Y. Rosseel (Ghent University) spmR: an R package for fMRI data analysis
11:20 – 11:40	M. Welvaert (Ghent University) Simulating fMRI data: the R package neuRosim
11:40 – 11:50	Short break
11:50 – 12:10	Y. Chen (MPI for Human Cognitive and Brain Sciences) Multi-scale mapping of fMRI information on the cortical surface: A graph wavelet based approach
12:10 – 12:40	J.-D. Haynes (BCCN Berlin) Multivariate decoding in neuroimaging
12:40	End of the workshop
14:00	Guided tour through Medizinhistorisches Museum

³The talk of Ch. Gaser (FSU Jena) has been cancelled due to an illness of the speaker