

Abteilung für Psychiatrische Neurophysiologie, UPD, 3000 Bern 60



^b
**UNIVERSITÄT
BERN**

Interfakultärer Schwerpunkt
Klinische Neurowissenschaften

Bern, 10th April 2008

BrainVoyager MRI Course 2008

Dear Members of the Clinical Neuroscience Network Bern

For those who are interested in participating in an Brain Voyager MRI course organized by A. Federspiel (Dept. of Psychiatric Neurophysiology, UPD Waldau) please send an email to A. Federspiel (federspiel@puk.unibe.ch) until May 5, 2008 for registration or further information. The course includes a theoretical (approx. 1h) as well as a practical part.

The course will be 4 x 3 hours and the covered topics are listed below

Kind regards

A. Federspiel

Prof. Dr. med. T. Dierks
University Hospital of Clinical Psychiatry
Dept. Psychiatric Neurophysiology
Bolligenstrasse 111
CH-3000 Bern 60

Tel. +41 031 9309330
Fax +41 031 9309961
dierks@puk.unibe.ch
www.puk.unibe.ch

Thursday, June, 12 14:00 – 17:00 (**Cortical Based Alignment**)

- Beyond Talairach Normalisation: Cortical Based Alignment
- Curvature estimation
- Distortion correction
- Morphing to Standard Sphere
- Spatial smoothing
- Group Alignment to Target Sphere
- Group Alignment to Group Average

Thursday, June, 19 14:00 – 17:00 (**Diffusion Tensor Imaging**)

- Pre-processing of DTI Data
- Co-registration of DTI Data
- Normalisation of DTI Data
- DWI Data analysis
- Tensor visualisation
- Fiber Tracking in ROIs

Thursday, June, 26 14:00 – 17:00 (**Advanced Statistical Testing**)

- Linear Regression analysis with one predictor
- Multivariate Linear Regression analysis with more than one predictor
- Analysis of Covariance (ANCOVA)
- Fixed-Effects GLM
- Random-Effects GLM
- Non-Parametric Testing
- Multiple Comparisons

Thursday, July, 3 14:00 – 17:00 (**Cortical Thickness**)

- Inhomogeneity correction
- Advanced Segmentation Tools
- Individual Cortical Thickness
- Cortical Thickness for Group analysis
- Cortical Thickness in Volume of Interest.
- Advanced statistical Testing with Cortical Thickness measure