DeepMI Lab

DeepMI

FastSurfer / FreeSurfer

course

September 17-19, 2025

DZNE | Bonn | Germany

Scan for more information:

A hands-on, introductory course on state-of-the-art methods for fast and reliable neuroimage analysis

DeepMI Lab @ German Center for Neurodegenerative Diseases (DZNE)

dzne.de | deep-mi.org/fastsurfer-course

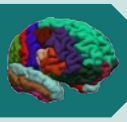
Segmentation → Surfaces → Longitudinal analysis → Group analysis → QC and edits → FastSurfer ecosystem

Course topics

Segmentation

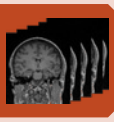
- Deep-learning-based segmentation of anatomical brain images
- From images to metrics: extracting and quantifying anatomical features

Surfaces



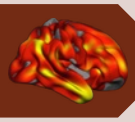
- Surface models and surface-based morphometry
- Surface registration and the preparation of statistical analyses

Longitudinal analysis



- Unbiased within-subject registration and person-specific templates
- Advanced statistical analysis using linear mixed-effect models

Group analysis



- The general linear model in neuroimaging analyses
- Statistical inference: hypotheses, contrasts, tests, significance

QC and edits

- Quality control of images, segmentations, and outputs
- Edits, troubleshooting, and practical issues

FastSurfer ecosystem

- Specialized applications and add-on modules
- Outlook to ongoing and planned developments

Course schedule

Wednesday, September 17	
13:30 - 13:45	Welcome
13:45 - 14:30	FastSurfer / FreeSurfer overview: Introduction to structural neuroimaging
14:45 - 15:45	Analyzing individual cases 1: segmentations
16:00 - 17:30	Analyzing individual cases 1: exercises

Thursday, September 18	
09:15 - 10:45	Analyzing individual cases 2: surfaces
11:15 - 12:30	Analyzing individual cases 2: exercises
13:30 - 15:00	Longitudinal processing and analysis
15:30 - 17:00	Quality control and edits

Friday, September 19	
09:15 - 11:15	Group analysis: statistical modeling and inference
11:30 - 12:30	Group analysis: exercises
13:30 - 14:15	The FastSurfer ecosystem
14:15 - 15:00	Wrap-Up and Farewell

All lectures come with demonstrations and practical exercises

Registration is open until August 31 or until all spots are filled. The course fee is EUR 250.

Register here:

deep-mi.org/fastsurfer-course/registration