



ukb universitäts  
klinikum bonn



# DeepMI

## FastSurfer / FreeSurfer

### course

September 26-27, 2024

DZNE | Bonn | Germany

Scan for more  
information:



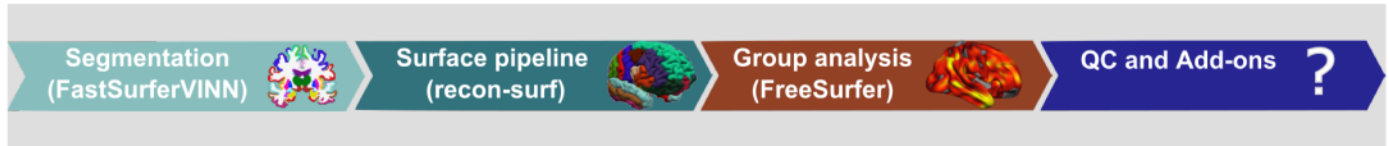
A hands-on, introductory course on  
state-of-the-art methods for fast and  
reliable neuroimage analysis




DeepMI Lab @ German Center for  
Neurodegenerative Diseases (DZNE)


[dzne.de](http://dzne.de) | [deep-mi.org/fast-surfer-course](http://deep-mi.org/fast-surfer-course)



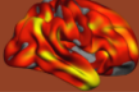


**Segmentation (FastSurferVINN)** 

- Deep-learning-based segmentation of anatomical brain images
- From images to metrics: extracting and quantifying anatomical features
- Pipelines, commands, outputs: practical and technical aspects

**Surface pipeline (recon-surf)** 

- What are surface models – and why should we use them?
- Surface-based metrics and outputs and how to use them
- Surface registration and the preparation of statistical analyses

**Group analysis (FreeSurfer)** 

- The general linear model in neuro-imaging analyses
- Statistical inference: hypotheses, contrasts, tests, significance
- Commands, output files, and visualization

**QC and Add-ons ?**

- Quality control of images, segmentations, and outputs
- Troubleshooting and practical issues
- The FastSurfer ecosystem: specialized applications, add-on modules, future developments

### Tentative schedule

| Thursday, September 26 |  |
|------------------------|--|
| 09:15 - 09:30          | Welcome                                      |
| 09:30 - 10:30          | FastSurfer / FreeSurfer overview             |
| 10:45 - 12:30          | Analyzing individual cases 1: segmentations  |
| 13:30 - 15:45          | Analyzing individual cases 2: surface models |
| 15:45 - 16:30          | Questions and answers                        |

| Friday, September 27 |                                       |
|----------------------|---------------------------------------|
| 09:15 - 11:00        | Statistical modelling                 |
| 11:15 - 12:30        | Statistical inference                 |
| 13:30 - 15:00        | QC, troubleshooting, practical issues |
| 15:15 - 16:00        | The FastSurfer ecosystem              |
| 16:00 - 16:30        | Wrap-up and farewell                  |

**All lectures come with demonstrations and practical exercises**

Registration is open until August 31 or until all spots are filled. There is no course fee.

**Register here:**  [deep-mi.org/fast-surfer-course/registration](https://deep-mi.org/fast-surfer-course/registration)

**... and see you in Bonn!** 

DZNE/Enig