



InReMed

Innovations in Regenerative Medicine

Monday, September 27th, 13:00 – 14:00

For the Zoom link click [here](#)

Prof. Dr. Bjoern Menze

Department of Quantitative Biomedicine, University of Zurich

BIOMEDICAL IMAGE ANALYSIS AT UZH

Our work is in biomedical image computing, exploring topics at the interface of **machine learning**, **medical imaging**, and **image-based modeling**. Very broadly, we are interested in developing computational methods for transforming the qualitative visual inspection of biomedical image data into a quantitative description of the image information and a functional interpretation of the underlying disease process. In this, we are using models from biophysics, computational physiology, and machine learning - focusing on applications in clinical neuroimaging and the modeling of tumor growth. We are also interested in how to apply such models to big data bases in order to learn about correlations between model features and disease patterns at a population scale.

Our technology contributes to a systematic testing of biomedical modeling approaches on real world image data and, hence, to improve the understanding of the image-marker generating processes underlying selected landmark applications. At the patient level, it adds to the design of patient-specific treatments in personalized medicine.

