# FEB 26th 2018 NODE#6 BERLIN PRACTICAL BRAIN NETWORK MODELING



# THEVIRTUALBRAIN.

Get up to speed about the fundamental principles of full brain network modeling using the opensource neuroinformatics platform The Virtual Brain (TVB).

TVB enables biologically realistic modeling of network dynamics using Connectome-based approaches across different brain scales.

Generate macroscopic neuroimaging signals incl. fMRI, intracranial and stereotactic EEG, surface EEG and MEG for single subjects. Morning sessions from 9:00 to 13:00

Introduction to workshop & coffee

A generative model of the brain: Describing the building blocks of a brain network model Basic principles and assumptions, recent studies with different local models, approximation of neural fields

**Interacting with TVB** Working with the web UI, command line and scripting interfaces

Constructing personalized models from empirical data

## ENJOY A FULL-DAY WORKSHOP MEET LEADING EXPERTS IN NEUROSCIENCE

Afternoon sessions from 14:00 to 18:45

**Brain stimulation in TVB** Understanding data formats and setting up pipelines for data extraction

#### **Clinical applications of TVB**

Modeling a resting state brain and exploring its dynamics

#### Hands-on Session

Using the GUI and demo scripts to simulate epilepsy, stroke, brain stimulation and a mouse model

# MORE INFORMATION & REGISTRATION: WWW.THEVIRTUALBRAIN.ORG/NODE6

## A workshop hosted by the TVB team at:

Charité – Universitätsmedizin Berlin & Berlin Institute of Health Charitéplatz 1 On Campus: Bonhoefferweg 3, Dept. Neurology ("Alte Nervenklinik") 3rd floor, Room: Seminarraum 3 10117 Berlin, Germany