

NODE#3 CHICAGO

PRACTICAL BRAIN NETWORK MODELING

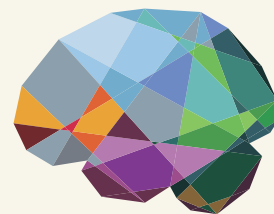
OCT
16th
2015

Get up to speed about the fundamental principles of full brain network modeling using the open-source 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.

A workshop hosted by the TVB team at:
Hyatt Regency Chicago Downtown Hotel
151 East Wacker Drive :: Regency Ballroom C
Chicago, Illinois 60601, USA



THEVIRTUALBRAIN.

PROGRAM MORNING SESSION

09:00 - 09:15 am

Introduction to workshop & caffeine intake

09:15 - 10:45 am

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

10:45 - 11:00 am

Coffee break

11:00 - 12:30 am

Interacting with TVB

Working with the web UI, command line and scripting interfaces

12:30 - 01:30 pm

Lunch break

MORE INFORMATION & REGISTRATION:
WWW.THEVIRTUALBRAIN.ORG/NODE3

PROGRAM AFTERNOON SESSION

01:30 - 02:00 pm

EduPack: An interactive TVB tutorial

Learning how to work with different parts of TVB by using the new interactive add-on

02:00 - 02:45 pm

How to obtain a TVB friendly dataset

Understanding data formats and setting up pipelines for data extraction

02:45 - 03:30 pm

Hands-on: Modeling brain networks at rest

Modeling a resting state brain and exploring its dynamics

03:30 - 04:00 pm

Coffee break

04:00 - 04:45 pm

Modeling the impact of structural lesions

Working with the Connectome as a "parameter", conduction speed and time delays

04:45 - 05:30 pm

Hands-on: Modeling epilepsy using TVB

Building a working example of an epileptic brain