### Nordic course on neuroinformatics: "From measurements to modeling"

The course will cover topics from neuroimaging, electrophysiology, and data analysis to explaining network level functions in vitro and in vivo by modeling means.

**Content**

- **Measurements**
  - **Electroencephalography**
  - **Functional magnetic resonance imaging**
  - **Positron emission tomography**
  - **Diffusion tensor imaging**
  - **Near-infrared spectroscopy**
  - **Enzyme-linked immunosorbent assay**
  - **Optogenetics**
- **Data analysis**
  - **Statistics**
  - **Machine learning**
  - **Network analysis**
- **Modelling**
  - **Computational modelling**
  - **Data annotation**
- **Practical issues**
  - **Time:** 3 days
  - **Location:** Tampere
  - **Participants:** Graduate students and advanced undergraduates
  - **Funding:** Lecturers and tutors will beCovered by INCFF; travel and accommodation will be covered by students or supervisors of students.

**Objectives**

- To study the structure of database
- To study the user interface
- To assess the suitability of XooNips as a storage repository
- To address the specific needs of research labs.

**Conclusions**

The pilot project was concluded that XooNips platform is able to perform well in basic data uploading and linking tasks. The scalability of the tool for specific neuroinformatics tasks in specific groups, such as uploading large files, still needs further examination. The system is taken into use in M2oBSI research group (http://www.cs.tut.fi/sgn/m2obsi/) at Tampere University of Technology, Finland.