

Welcome to the Bergen fMRI Fall Course 2006

September 4-5, 2006 in Bergen, Norway

fMRI-gruppen i Bergen • Nasjonalt kompetansesenter for funksjonell MR

Mining Brain Dynamics

A Tutorial Workshop on

Independent Component Analysis in Neuroimaging September 4-5, 2006 in Bergen, Norway

This workshop intends to give a broad overview and practical introduction to aspects of multivariate data mining with independent component analysis (ICA) in neuroscience, detailing applications for hemodynamic (fMRI) and electrophysiologic (EEG/ERP) imaging data, as well as multimodal integration. Lectures will cover a range of themes illustrating data- vs. hypothesis-driven analysis approaches, blind source separation theory, pre-processing, functional significance and interpretation of IC's from hemodynamic and electrophysiologic data, inferences from IC's within the statistical parametric mapping (SPM) framework, multimodal data acquisition, use of ICA for integration of structural and/or functional MRI with electrophysiological measures.

Practical and hands-on

The course puts an emphasis on practical sessions, where the specific applications will be presented and questions/problems can be discussed. These hands-on demonstrations will mainly refer to the academic freeware toolboxes GIFT, EEGLAB, and SPM running in the MATLAB environment. Although the program focuses on applications in human cognitive neuroscience, researchers from related fields where multivariate data decomposition is of interest are invited to join.

Poster session

In order to provide a platform for discussions outside the lectures, the workshop will host a poster-session, and participants are invited to submit abstracts of their work. Where relevant, PhD-students can receive course credits (ECTS) from IGSIN, requiring additional completion of an assignment on a course-related topic.

More information

For complete program, suggested reading, practical details and registration see our web pages at: <http://fmri.uib.no> Registration deadline is **August 25**.

Invited speakers:



Dr. Vince D. Calhoun

Assoc. Professor, Department of Psychiatry, Yale University.
Director Medical Imaging Analysis Lab, Olin Neuropsychiatry Research Centre, Hartford CT, USA



Dr. Stefan Debener

Hon. Reader
Institute of Hearing Research
Royal South Hants Hospital
Southampton, UK.



The course is arranged by the Bergen fMRI Group / National Competence Center in fMRI, University of Bergen and Haukeland University Hospital.

The program is organized by Tom Eichele, Matthias Moosmann and Prof. Kenneth Hugdahl, Department of Biological and Medical Psychology, University of Bergen.