

SPM short course UU/UMC

Practical and theoretical introduction into fMRI data analysis

This 2 day course is intended for researchers planning to enter the field of functional MRI analysis. We offer a theoretical introduction into fMRI study design and image analysis, and, importantly, practical data analysis sessions. The intended audience would have a background in neuroscience, biology, psychology, physics, medicine or a related field.

Contents

After completing this course, the participant should be able to independently design a fMRI experiment and analyse the acquired data. The Statistical Parametrical Mapping 2 (SPM2) software package will be used during the practical sessions, a free software package running under Matlab developed by the Functional Imaging Laboratory (FIL) of The Wellcome Department of Imaging Neuroscience (<http://www.fil.ion.ucl.ac.uk/spm/>).

During the morning lectures experts in fMRI analysis will introduce the neurophysiological background of the signals measured with fMRI and outline the main principles underlying image registration and statistical analysis. During the afternoon practical sessions the participants will be able to analyse real fMRI datasets under the supervision of 5 experienced researchers.

Required background knowledge

For this course the participants should have a basic knowledge of neuroanatomy, neurophysiology and the basic working of the brain. Some basic mathematical and programming skills are also beneficial.

Organization

The courses will be held the 25th and 26th of april at “De Uithof”, the venue of Utrecht University, and is organized in a joint effort by researchers from the Helmholtz Institute/ Utrecht University and the Rudolf Magnus Institute of Neuroscience/ University Medical Center Utrecht. After registering you will receive detailed directions and more information regarding the program. The fee will be € 195 for Helmholtz or RMI researchers, and € 260 for other participants. Participation will be on a first come – first served basis. See the attached form for registration. For the practical sessions there are 20 PCs available with all the necessary software and example data on which participants will work in pairs. Therefore, the number of participants had to be limited to 40.

Organizing committee:

Dr. S.F.W. Neggers (UU)
Dr. N.F. Ramsey (UMCU)
Drs. M. Vink (UMCU)
Drs. E.J. Hermans (UU)

For more information please email: s.f.w.neggers@fss.uu.nl

Preliminary program

25/4/2005

9.30-10.15	Introduction into fMRI
10.15-11.00	(f)MRI physics, acquisition techniques (T1/T2/T2*, etc)
11.00-11.15	Coffee break
11.15-12.00	Spatial preprocessing, image registration techniques (realignment, coregistration, normalization)
12.00-13.00	Lunch break
13.00-17.00	Practical session "Spatial preprocessing" Image registration techniques on 2 real datasets

26/4/2005

9.30-10.15	The Blood Oxygenation Level Dependent (BOLD) signal, neurophysiological background.
10.15-11.00	Experimental design (block-, event-related and parametrical designs)
11.00-11.15	Coffee break
11.15-12.00	Statistical modelling of functional MRI scans using the General Linear Model, (GLM), statistical inference.
12.00-13.00	Lunch break
13.00-17.00	Practical session "Statistical analysis" Applying GLM on real datasets (block/event related analyses)

Registration

For registration please print out and fill in and sign the **registration form** on the next page and send or fax it to:

A. Hörchner-Driehuis
Helmholtz Institute/Dept. Of Psychonomics
Utrecht University
Heidelberglaan 2
3584 CS Utrecht
fax: +31 253 4511

As soon as we received your payment you are registered for the course. The deadline for applying is the 11th of april (before this deadline the fee has to be paid). The required amount is € 195 for participants employed at one of the departments of the Helmholtz Institute or the Rudolf Magnus Institute of Neuroscience, and € 260 for other candidates. Please transfer the required amount to :

“Girorekening” : 229728
: Faculteit de Sociale Wetenschappen
Heidelberglaan 1, 3584 CS Utrecht

Don't forget to mention your name in the remarks and the following information:

Order number: 131.208.005 (SPM short course)

Registration form

For the SPM short course at the Utrecht University/University Medical Center Utrecht, 25-26th of april 2005.

Name : _____
Institution : _____
Function : _____
Address : _____
Zip/postal code : _____
Country : _____
Email : _____

I hereby apply for participation in this SPM short course, and agree to pay 195€ /260€
(employed at Helmholtz or RMI / external candidate) admission fee.

(Date)

(signature)

Please sign and send or fax this form to:

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