

	Wednesday August 18	Thursday August 19	Friday August 20	Saturday August 21	Sunday August 22
Morning		Whole day symposium (*) Symposium 1:	Symposium 2: Measurement modalities in human brain research	Symposium 3: Simultaneous Measurements	Whole day Free, social program
Afternoon	Arrival Registration Technical and scientific introduction Keynote lecture	Theory of data fusion	Symposium 3: Simultaneous Measurements	Social Canoe tour	All-day excursion through Wörlitz park
Evening	Social Get together party		Social Guided city tour		

	Monday August 23	Tuesday August 24	Wednesday August 25	Thursday August 26
Morning	Whole day symposium (*) Symposium 4:	Symposium 5: Multimodal generative models	Project work	Departure
Afternoon	Use of priors	Project work	Project defences Adjournment	
Evening			Social Barbecue Evening	

There are morning symposia (**) (S2 and S5) and whole day symposia. Their principal time tables look as follows. The Symposia also include time for project work.

(*) Whole day symposium

Whole day symposium	
8:30-10:00	didactic overview lecture
10:00-10:30	break
10:30-11:30	self-study time and project work
11:30-13:00	lunch break
13:00-15:30	hot-topic talks (2-4)
15:30-16:30	Break, self study time and project work
16:30-17:30	panel discussion
If the symposium is distributed over two days (S3), this plan applies analogously.	

(**) Morning symposium

Morning symposium	
8:30-10:00	didactic overview lecture
10:00-10:30	break
10:30-11:30	hot-topic talks (2-3)
11:30-12:00	self-study time
12:00-13:00	lunch break

Some explanations

Oral presentations

We distinguish between didactic overview talks and specific hot-topic presentations. For each overview talk we allot 10 minutes of discussion time. Hot-topic talks cover specific topics, which are currently in the focus of leading researchers. Wherever possible, these talks should include practical issues, like specific software packages, how to use them, etc.

Self-study time

The students work on the topics presented in the lectures, using the speakers' slides, internet and recommended literature. Moreover they should also use this time to work on their projects. Each study/project group (3-4 people) will be mentored by a PhD student from the organizational team, who is familiar with the topic.

Panel discussions

The speakers of the respective session form the panel. The respective session organizer (PhD student from the applicants' groups) organizes and moderates the discussion. The panel discussions conclude the whole day symposia and offer the possibility to discussion questions having arisen during the lectures and self study.

Project work

On the first day we will issue project topics (10-12). Groups will be formed for each of the topics. The students may work on these topics during the self study time slots and during the final project phase (Tuesday and Wednesday). The students may use lecture slides, internet and the recommended literature to prepare a "mini-review" (3-4 pages) and an oral presentation of about 10 minutes. The project results will be discussed and evaluated immediately by a board of experts. The ECTS certificates will be issued upon this work.

Overview on Symposia:

Symposium 1: Theory of data fusion

In this whole-day symposium, the foundations will be laid with respect to general theoretical aspects of information fusion, i.e., drawing conclusions based on information from multiple sources, with or without explicit modelling. Moreover, the issue of spatio-temporal co-registration, in particular of imaging data, will be treated in detail.

Symposium 2: Measurement modalities in human brain research

This half-day symposium will the fundamental of the most important measurement modalities used in neurology and brain research. These are: electroencephalography (EEG), magnetoencephalography (MEG), functional magnetic resonance imaging (fMRI), positron emission tomography (PET), single-photon emission computerized tomography (SPECT), magnetic resonance imaging (MRI), diffusion weighted imaging (DWI) and near infrared spectroscopy (NIRS).

Symposium 3: Simultaneous measurements

This symposium, comprising two half days, is dedicated to the issue of simultaneous recording more than one modality in the same experiment. This is a very important issue, since only simultaneous recording can guarantee that all data reflect the same brain states. Important combinations that will be treated are: simultaneous recording of EEG and MEG, recording of EEG in the MRI scanner, simultaneous recording and registration of structural and functional MR data, and simultaneous recording of intracranial (e.g., LFP) and scalp EEG.

Symposium 4: Usage of a priori information in EEG/MEG source reconstruction

Since the reconstruction of the source of EEG and MEG is non-unique, this information gap has to be filled, either with more or less arbitrary assumptions or with information from other modalities. Particular emphasis in this whole-day symposium will be put on Bayesian modelling, which allows for the use of additional information as priors for the source parameters. We will discuss different types of anatomical and functional constraints.

Symposium 5: Multimodal generative models

Generative models for more than one modality are an effective means of data fusion. Here we will consider dynamic generative models for EEG, MEG and fMRI within the framework of dynamic causal modelling (DCM).