

Contact

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▶ www.tu-ilmenau.de/bmti

Costs

390 Euro including 5 overnight stays, breakfast, lunch, dinner and social programme

Registration

Deadline 31. March 2006

For registration please send an e-mail with the following contact data: first name, last name, position (e.g. PhD student), Institution with address, telephone, fax and e-mail to Gabi.Hey@tu-ilmenau.de

Registration becomes valid upon reception of the fee (390 Euro) on the following bank account:

BIC: MARKDEF1820 (Bank Identifier Code)

IBAN: DE438200 0000 00 8200 1500 (Int. Bank Account Number)

Name of Bank: Deutsche Bundesbank Erfurt

Account holder: Staatskasse Thüringen, TU Ilmenau

Account number: 00 8200 1500, BLZ: 8200 0000

Reason for payment: TUIL-1581-22210194 (don't forget!)

Organisers

- Institute of Biomedical Engineering and Informatics, Technical University Ilmenau
Jens Hauelsen ▶ www.tu-ilmenau.de/bmti
- Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig
Thomas R. Knösche ▶ www.cbs.mpg.de
- Department of Neurology
Friedrich Schiller University Jena
Otto W. Witte ▶ www.med.uni-jena.de/neuro

Venue

Get educated where Martin Luther got educated.

The International Summer School will take place at the Augustiner Kloster Erfurt, where Martin Luther lived and studied from 1505 to 1511. The historic monastery is located in the heart of Erfurt, the state capital of Thuringia in Germany

Address

Evangelisches Augustinerkloster zu Erfurt
Augustinerstraße 10
99084 Erfurt



▶ www.augustinerkloster.de

DGBMT DEUTSCHE GESELLSCHAFT FÜR
BIOMEDIZINISCHE TECHNIK IM VDE

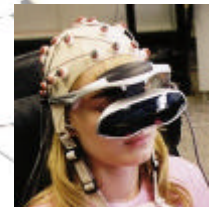
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UNIVERSITÄT
ILMENAU

**SUMMER SCHOOL**

Decomposition methods for
multidimensional data

1st International
Summer School
in
Biomedical Engineering

- August, 7-11, 2006
- Erfurt, Germany



Biomagnetic Center Jena
Friedrich-Schiller-University Jena



VDE

Decomposition methods for multi-dimensional data

1st International Summer School in Biomedical Engineering

- August, 7-11, 2006
- Erfurt, Germany

Background

The decomposition of multidimensional data is a problem that exists in a variety of biomedical engineering applications, as well as in many other fields of science. Today there are a number of advanced techniques to break down a set of data (e.g. a human electroencephalogram) into a finite number of units or atoms, which are defined in multiple dimensions (e.g. time, space, frequency). However, it remains challenging to apply these techniques in such a way that the obtained atoms reflect functionally meaningful entities of the underlying signal generating system (e.g. the human brain).

Aims

The aim of the International Summer School is to provide in depth education and practical exercises on decomposition methods for multidimensional data. Special focus is laid on the correct interpretation of the obtained atoms in terms of the underlying functionality. Moreover, the International Summer School is expected to facilitate the exchange of ideas on latest developments in the field.

Target Group

(up to 40 participants)

- PhD students
- advanced Master students
- researchers entering the field working in the decomposition methods for multidimensional data



Faculty:

Coordination:

Jens Haueisen (TU Ilmenau)
Thomas Knösche (MPI Leipzig)

Organisation of Symposia:

Dania Di Pietro Paolo (BMDSys, Jena)
Stefan Illek (Universität Jena)
Uwe Graichen (TU Ilmenau)
Maciej Gratkowski (TU Ilmenau)
Roland Eichardt (TU Ilmenau)

Invited speakers:

Guido Nolte, Fraunhofer FIRST, Berlin
Galina Ivanova, Technical University Ilmenau
Alwin Stegeman, University of Groningen
Morten Mørup, Technical University of Denmark
Mathias Holschneider, University of Potsdam
Bruno Torrésani, University of Provence, Marseille
Piotr J. Durka, Warsaw University
Jukka Nenonen, Elekta Neuromag, Helsinki
Samu Taulu, Elekta Neuromag, Helsinki
Paul Schimpf, Washington State University, Spokane

Support

ANT B.V.

BMDSys GmbH - Biomagnetische Diagnosesysteme

Carl Zeiss Meditec AG

eldith GmbH

Elekta Neuromag Oy

Deutsche Gesellschaft für Biomedizinische Technik im VDE

Credits:

3 ECTS

Schedule

	Lectures	
	9:00 - 12:15	13:15 - 17:45
Monday, 7 th	Introduction	ICA
Tuesday, 8 th	ICA	PARAFAC
Wednesday, 9 th	Wavelets	Wavelets
Thursday, 10 th	Matching pursuit	Matching pursuit
Friday, 11 th	Dipolar source separation	Dipolar source separation

Evening-Program

Monday, 7 th	Get together
Tuesday, 8 th	Martin Luther Tour
Friday, 11 th	Good-bye Party

For each of the topic symposia, an expert in the field will give an overview lecture of 1.5 hours. Hot topic talks and practical demonstrations illuminate selected latest developments. Finally, a panel discussion (one hour) offers the opportunity to discuss open issues in detail.

