

Curriculum Vitae

Tom Eichele, PhD

Physician

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born on February 5th, 1975 in Cuxhaven, Germany

married to Heike, two daughters

Academic

Current	Post-Doc, Cognitive Neuroscience Group, University of Bergen (UiB)
2003-2007	PhD Student, Department of Biological and Medical Psychology (IBMP) UiB Supervisors: K. Hugdahl, H. Nordby
2002	Research fellow, IBMP

Education

2003	Full approbation to practice medicine in Germany, and Norway
2001-2002	Clinical Internship: Cardiology, Intensive Care, Neurology
2000	Research assistant, IBMP
1995-2002	Medicine, University of Greifswald, Germany
1994	Graduation, Amandus Abendroth Gymnasium, Cuxhaven

Languages

German (native), English, Norwegian, French (basic)

Research interests

Cognitive Neuroscience: Perception, Attention, and Prediction

Method Development: EEG-fMRI Integration, Single Trial Analysis, Blind Source Separation

Areas of Competence

Psychophysiology, Neuroimaging (EEG, ERP, fMRI), Multimodal Integration, Experimental Design, Statistics, Data Mining

Teaching experience

2006	proxy teacher for H. Nordby
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Lectures

2003-2008	EEG/ERP in Cognitive Neuroscience (undergraduate)
2005-2008	Event Related Potentials (graduate)
2006	Psychophysiology: Autonomous Indicators of Cognition and Emotion
2006	Psychophysiology: Introduction to EEG and ERP

Courses given

2003-2007	EEG and ERP acquisition and analysis (undergraduate)
2005-2006	Experimental Design with E-Prime for beginners and advanced users
2006-2007	Psychophysiology / Electrodermal activity (undergraduate)
2007-2008	Neuroanatomy

Supervision

Undergraduate: >20 term papers on various topics employing EEG/ERP

<i>Graduate:</i>	2006	Co-Supervision, Pascale Sandmann (University of Zürich)
	2008	Main Supervision Rune Eikeland (NTNU, Trondheim)
<i>Doctorate:</i>	2008	Co-Supervision, Kristiina Kompus (University of Umeå)
	2008	Co-Supervision, Pascale Sandmann (University of Zürich)

Other activities

2002-2003	Evaluation and installation of equipment in EEG/ERP labs in the BBB
2003-2008	In charge of daily operations in the EEG/ERP laboratories
2004	Organizer EEG/ERP analysis course
2005-2006	Co-Organizer E-Prime courses
2005	Visiting Fellow, Olin Neuropsychiatry Centre (host: V.D. Calhoun)
2006	Host 'Journal Club' seminar series
2006	Organizer Bergen fMRI fall course "Mining Brain Dynamics"
2006	proxy representative on the IBMP board (group B)
2007, 2008	Visiting Fellow, MIND Institute (host: V.D. Calhoun)
2008	Co-Developer: EEGIFT software, group ICA for EEG (http://icatb.sourceforge.net)

Ad hoc Reviewer*Journals:*

Brain Research
 Brain Research Bulletin
 International Journal of Psychophysiology
 IEEE Transactions on Biomedical Engineering
 Journal of Cognitive Neuroscience
 Journal of Psychophysiology
 Human Brain Mapping
 NeuroImage
 Psychophysiology
 The Engineering in Medicine and Biology Conference

Funding Bodies:

National Science Foundation, USA (CRCNS panel)

Memberships

Society for Psychophysiological Research (SPR)
 Organization for Human Brain Mapping (OHBM)
 Cognitive Neuroscience Society (CNS)

Peer review Publications

1. Hugdahl, K., Carlsson, G., & Eichele, T. (2001). Age effects in dichotic listening to consonant-vowel syllables: interactions with attention. *Dev Neuropsychol*, 20(1): 445-57.
2. Jongsma, M.L., Eichele, T., Quiñero, R., Jenks, K.M., Desain, P., Honing, H., & Van Rijn, C.M. (2005). Expectancy effects on omission evoked potentials in musicians and non-musicians. *Psychophysiology*, 42(2): 191-201.
3. Eichele, T., Nordby, H., Rimol, L.M., & Hugdahl, K. (2005). Asymmetry of evoked potential latency to speech sounds predicts the ear advantage in dichotic listening. *Brain Res Cogn Brain Res*, 24(3): 405-12.
4. Eichele, T., Specht, K., Moosmann, M., Jongsma, M.L., Quiñero, R.Q., Nordby, H., & Hugdahl, K. (2005). Assessing the spatiotemporal evolution of neuronal activation with single-trial event-related potentials and functional MRI. *Proc Natl Acad Sci U S A*, 102(49):17798-803.

5. Rimol, L.M., Eichele, T., & Hugdahl, K. (2006). The effect of voice-onset-time on dichotic listening with consonant-vowel syllables. *Neuropsychologia*, 44(2):191-6.
6. Jongsma, M.L., Eichele, T., Rijn, C., Coenen, A.M., Hugdahl, K., Nordby, H., Quiroga, R. (2006). Tracking pattern learning with single-trial event related potentials. *Clinical Neurophysiology* 117(9):1957-73.
7. Eichele, T., Calhoun, V., Moosmann, M., Specht, K., Jongsma, M.L., Quiroga, R.Q., Nordby, H., & Hugdahl, K. (2008). Unmixing concurrent EEG-fMRI with parallel independent component analysis. *International Journal of Psychophysiology* 67(3):222-34
8. Moosmann, M., Eichele, T., Nordby, H., & Hugdahl, K., Calhoun, V., (2008). Joint independent component analysis for simultaneous EEG-fMRI: Principle and Simulation. *International Journal of Psychophysiology* 67(3):212-21
9. Sorg, C., Riedl, V., Mühlau, M., Calhoun, V., Eichele, T., Läer, L., Drzezga A., Förstl, H., Kurz, A., Zimmer, K., Wohlschläger, A (2007). Selective changes of resting-state networks in individuals at high risk for Alzheimer's disease. *Proc Natl Acad Sci U S A*, 104(47):18760-18765
10. Sandmann, P., Eichele, T., Specht, K., Jancke, L., Rimol L.M., Nordby H., Hugdahl K (2007). Hemispheric asymmetries in the processing of temporal acoustic cues in consonant-vowel syllables. *Restor Neurol Neurosci*. 25(3-4):227-40.
11. Eichele, T., Debener, S., Calhoun, V., Specht, K., Engel, A., Hugdahl, K., von Cramon D.Y., Ullsperger, M. (2008) Prediction of human errors by maladaptive changes in event-related brain networks. *Proc Natl Acad Sci U S A*, 105(16):6173-8.

Invited Lectures (selected)

13th World Congress of Psychophysiology, Istanbul, 2007
 Interdisciplinary Center for Neural Computation, Hebrew University of Jerusalem, 2007
 PASCAL Workshop Fraunhofer Institute, Berlin, 2007 (http://videolectures.net/mda07_berlin)
 HBM, Chicago, 2007
 ICON X, Bodrum, 2008
 PENS Summerschool, Bangor, 2008

For a complete listing of all contributions see <http://www.uib.no/frida>

Awards

2005 UiB, Faculty of Psychology Anniversary Travel Award, 25.000 NOK
 2007 UiB, Faculty of Psychology Young Investigator Award, 75.000 NOK
 2008 UiB, L. Meltzer University-Fund Young Investigator Award, 100.000 NOK

Grants

2008 Application of single trial analysis approaches for neuroimaging data (fMRI, ERP, EEG-fMRI) based on blind source separation, L. Meltzer University-Fund, 277.000 NOK

External Collaborators

Prof. Vince D. Calhoun, MIND Research Network Albuquerque, New Mexico
 Prof. Stefan Debener, University of Jena, Germany
 Dr. Markus Ullsperger, Max Planck Institute for Neurological Research, Cologne, Germany
 Dr. Valentin Riedl, Dept of Neuroradiology, Technical University Munich, Germany

References

Prof. Kenneth Hugdahl, University of Bergen
 Prof. Helge Nordby, University of Bergen
 Dr. Karsten Specht, University of Bergen