

Curriculum Vitae

Personal Data

Title	Prof. Dr. rer. nat. Dipl. Phys.
First name	Markus
Name	Junghöfer
Current position	Senior Research Scientist
Current institution(s)/ site(s), country	Institute for Biomagnetism and Biosignalanalysis (IBB), Faculty of Medicine, UKM, Universität Münster (UMS), Germany
Identifiers/ORCID	0000-0002-8532-2986

Qualifications and Career

Stages	Periods and Details
Degree programme	1987–1994 Physics and Geophysics, UMS, Germany & Department of Medical Engineering, Siemens AG Erlangen, Germany
Doctorate	1999 Dissertation, Affective and Cognitive Neuroscience, “Spatial high-resolution EEG: principles of signal generation, measurement technique and signal analysis”, Universität Konstanz, Germany
Stages of academic/ professional career	<p>2005–present Senior Research Scientist, IBB, University Hospital, UMS, Germany</p> <p>2018 Visiting Professor, Department of Psychology Franklin College of Arts and Sciences, University of Georgia, USA</p> <p>2010 Habilitation in Affective and Cognitive Neuroscience, Medical Faculty, UMS, Germany</p> <p>2004 Junior Professor, General Psychology, University of Konstanz, Germany</p> <p>2003–2004 Assistant Professor, General Psychology, University of Konstanz, Germany</p> <p>2000–2003 Post-Doctoral Research Associate, Clinical Psychology, University of Konstanz, Germany</p> <p>1999–2000 Post-Doctoral Fellow, NIMH Center for the Study of Emotion and Attention, University of Florida, USA</p> <p>1995–1999 PhD student, Clinical Psychology, University of Konstanz, Germany</p> <p>1991–1993 Assistant Research Scientist, Magnetoencephalography Research Group, Siemens AG Erlangen, Germany</p>

Engagement in the Research System

- since 2022 Speaker of Otto-Creutzfeldt-Center for Cognitive and Behavioural Neuroscience (OCC) at the UMS, Germany
- since 2020 Board Member of the OCC, UMS, Germany

Supervision of Researchers in Early Career Phases

- Long-standing and regular contributions to multidisciplinary training for national and international undergraduate, graduate and postgraduate students, offering lectures, practical courses and seminars on different topics from Affective and Cognitive Neuroscience. Since 2001, personal supervision of 14 BSc (Psychology and Biomedical Engineering), 26 MSc (Psychology), 24 MD and 11 PhD students.

Scientific Results

Contributions:¹Conceptualization/Methodology, ²Analysis, ³Investigation, ⁴Funding Acquisition, ⁵Writing

Category A (10 selected publications out of 105)

Ligeza T, Maciejczyk M, Wyczesany M, **Junghöfer M**^{2,3,5}: The effects of a single aerobic exercise session on mood and emotional reactivity in depressed and healthy young adults: A late positive potential study. *Psychophysiology* 2023; 60(1):e14137. DOI: 10.1111/psyp.14137

Roesmann K, **Leehr EJ**, ..., Herrmann MJ, **Dannlowski U**, ..., **Junghöfer M**^{1,2,3,4,5}: Behavioral and magnetoencephalographic correlates of fear generalization are associated with responses to later virtual reality exposure therapy in spider phobia. *Biol Psychiatry Cogn Neurosci Neuroimaging* 2022; 7(2):221-230. DOI: 10.1016/j.bpsc.2021.07.006

Gross J*, **Junghöfer M**^{*1,2,3,5}, Wolters W*: Bioelectromagnetism in human brain research: New applications, new questions. *Neuroscientist* 2021; 29(1):62-77. DOI: 10.1177/10738584211054742

Roesmann K, ..., **Wessing I**, **Junghöfer M**^{1,2,3,4,5}: Fear generalization of implicit conditioned facial features – behavioral and magnetoencephalographic correlates. *NeuroImage* 2022; 205:116302. DOI: 10.1016/j.neuroimage.2019.116302

Notzon S, Steinberg C, Zwanzger P, **Junghöfer M**^{1,2,3,4,5}: Modulating emotion perception: Opposing effects of inhibitory and excitatory prefrontal cortex stimulation. *Biol Psychiatry Cogn Neurosci Neuroimaging* 2022; 3(4):329-336. DOI: 10.1016/j.bpsc.2017.12.007

Junghöfer M^{1,2,3,4,5}, Winker C, Rehbein MA, Sabatinelli D: Noninvasive stimulation of the medial prefrontal cortex enhances pleasant scene processing. *Cereb Cortex* 2017; 27(6):3449-3456. DOI: 10.1093/cercor/bhx073

Zwanzger P, ..., **Junghöfer M**^{1,2,3,4,5}: Impact of electroconvulsive therapy on magnetoencephalographic correlates of dysfunctional emotional processing in major depression. *Eur Neuropsychopharmacol* 2017; 26(4):684-92. DOI: 10.1016/j.euroneuro.2016.02.005

Domschke K, ..., **Junghöfer M**^{1,2,3,4,5}: Magnetoencephalographic correlates of emotional processing in major depression – a pre/post-treatment study. *Int J Neuropsychopharmacol* 2016; 19(2):pyv093. DOI: 10.1093/ijnp/pyw031

Wessing I, ..., **Junghöfer M**^{1,2,3,4,5}: Cognitive emotion regulation in children: Reappraisal of emotional faces modulates neural source activity in a fronto-parietal network. *Dev Cogn Neurosci* 2015; 13:1-10. DOI: 10.1016/j.dcn.2015.01.012

Bröckelmann AK, ..., **Junghöfer M**^{1,2,3,4,5}: Emotion-associated tones attract enhanced attention at early auditory processing: magnetoencephalographic correlates. *J Neurosci* 2011; 31(21):7801- 7810. DOI: 10.1523/JNEUROSCI.6236-10.2011

Category B

EMEGS (ElectroMagnetic EncaphaloGraphy Software written by **Markus Junghöfer** and Peter Peyk) is a freely available software package for high density EEG/MEG data analysis which includes among other features data preprocessing, artefact correction, averaging, inverse modelling and parametric and non-parametric statistical analyses. A large number of references document its use by national and international EEG and MEG laboratories. See: www.emegs.org

Peyk P, De Cesarei A, **Junghöfer M**^{1,2,3,4,5}: ElectroMagnetoEncephalography software (EMEGS): overview and integration with other EEG/MEG toolboxes. *Comput Intell Neurosci Special issue: Academic software applications for electromagnetic brain mapping using MEG and EEG* 2011; 861705. DOI: 10.1155/2011/861705

Keil A, Debener S, Gratton G, **Junghöfer M**^{1,2,3,5}, Kappenman ES, Luck SJ, Luu P, Miller GA, Yee CM: Committee report: Publication guidelines and recommendations for studies using electroencephalography and magnetoencephalography. *Psychophysiology* 2014; 51(1):1-21. DOI: 10.1111/psyp.12147

Junghöfer M^{1,2,3,4,5}, Peyk P, Flaisch T, Schupp H: Neuroimaging methods in affective neuroscience: Selected methodological issues. *Prog Brain Res* 2006; 156:123-143. DOI: 10.1016/S0079- 6123(06)56007-8

Junghöfer M^{1,2,3,4,5}, Schupp H, Stark R, Vaitl D: Neuroimaging of Emotion: Empirical effects of proportional global signal scaling in fMRI data analysis. *NeuroImage* 2005; 25(2):520-526. DOI: 10.1016/j.neuroimage.2004.12.011

Science communication (selected)

- 2015 Thomas Straube & Markus Junghöfer. International CRC symposium: Fear, Anxiety, Anxiety Disorders; Münster, 2015
- 2004 Johanna Kissler & Markus Junghöfer. International workshop on 'Understanding Emotions: Insights into emotion communication and the brain'. Konstanz
- 2006 "Understanding Emotions" (2006) Progress in Brain Research; Elsevier. Edited by: Anders S., Ende G., Junghöfer M., Kissler J., Wildgruber D.

Academic Distinctions

- 1999 Young Scientist Award of the German Society for Psychophysiological Research

Other Information

n/a