

CURRICULUM VITAE

Dr. Dipl.-Biol. Immo Weber

Born in Magdeburg
<https://www.systemsneuroscience.de>



EDUCATION

- 2019 Dr. rer. nat. (*summa cum laude*)
Philipps-Universität Marburg
Marburg, Hessen
- 2012 Diploma, Biology
Universität Rostock
Rostock, Mecklenburg-Vorpommern

ACADEMIC CAREER

- 2020 - today **Junior Principal Investigator**
The Dynamical Neuroscience Lab
University Hospital Giessen & Marburg, Neurology, Germany
- 2017 -
2019 **Research fellow**
University Hospital Gießen & Marburg, Neurology, Germany
- 2017 -
2019 **PhD student**
Phillips-Universität Marburg, Marburg, Germany
- 2013 -
2017 **PhD student**
University of Cologne, Cologne, Germany

RESEARCH GRANTS

- 2018 **Stiftung Kempkes P.E.**
Lead applicant: 10888,50 €

REVIEWS

Reviewer

Israel Science Foundation
NeuroImage
IEEE Journal of Biomedical and Health Informatics
Neurology and Neurosurgery
Entropy
Neurobiology of Aging
Annals of Clinical and Translational Neurology

PUBLICATIONS

PEER-REVIEWED JOURNALE UND BUCHKAPITEL

- Weber, I.**, Florin, E., von Papen, M., Visser-Vandewalle, V., & Timmermann, L. (2020). Characterization of information processing in the subthalamic area of Parkinson's patients. *NeuroImage*, 116518.
- Weber, I.**, Florin, E., Von Papen, M., & Timmermann, L. (2017). The influence of filtering and downsampling on the estimation of transfer entropy. *PLoS one*, 12(11).
- Sukiban, J., Voges, N., Dembek, T. A., Pauli, R., Visser-Vandewalle, V., Denker, M., **Weber, I.**, Timmermann, L., Grün, S. (2019). Evaluation of Spike Sorting Algorithms: Application to Human Subthalamic Nucleus Recordings and Simulations. *Neuroscience*, 414, 168-185.
- Nettersheim FS, Loehrer PA, **Weber I**, Jung F, Dembek TA, Pelzer EA, Dafsari HS, Huber CA, Tittgemeyer M, Timmermann L. Dopamine substitution alters effective connectivity of cortical prefrontal, premotor, and motor regions during complex bimanual finger movements in Parkinson's disease. *Neuroimage*. 2018 Apr 23.
- Oehr, C., **Weber, I.**, (2017). 6 Wirkweise der tiefen Hirnstimulation, in: Voges, J., Timmermann, L. (Eds.), Tiefe Hirnstimulation. De Gruyter, Berlin, Boston, pp. 73–88.
- Loehrer PA, Nettersheim FS, Jung F, **Weber I**, Huber C, Dembek TA, Pelzer EA, Fink GR, Tittgemeyer M, Timmermann L. Ageing changes effective connectivity of motor networks during bimanual finger coordination. *Neuroimage*. 2016 Dec; 143:325-342.
- Badstuebner K, Gimsa U, **Weber I**, Tuchscherer A, Gimsa J. Deep Brain Stimulation of Hemiparkinsonian Rats with Unipolar and Bipolar Electrodes for up to 6 Weeks: Behavioral Testing of Freely Moving Animals. *Parkinsons Dis*. 2017; 2017:5693589.

IN PREPARATION ---

Weber, I., Oehr, C. NoLiTiA: An Open-Source Toolbox for Nonlinear Time Series.

CONFERENCES ---

POSTER

Weber I, Oehr, C, Apetz N, Dembek T, Jung F, Florin E, Timmermann L. Classification of Dopaminergic-State and Motor Activity by Theta, Beta and Gamma Activity in Parkinson's Disease. MOVEMENT DISORDERS. 33,,S815-S815,2018,"WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA"

Oehr, C, **Weber I,** Apetz N, Dembek T, Jung F, Florin E, Timmermann L. Subthalamic theta oscillations in Parkinson's disease. MOVEMENT DISORDERS. 33,,S699-S699,2018,"WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA"

Weber I, Florin E, von Papen M, Timmermann L. Information transfer between subthalamic area and forearm muscles during tonic muscle activity in Parkinson's patients. MOVEMENT DISORDERS. 322017,"WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA"

Weber I, Florin E, Jung F, von Papen M, Timmermann L. How does preprocessing affect estimation of causal information transfer in the human brain? Movement Disorders. 31,,S420,2016,Movement Disorders

SKILLS ---

Skills: Matlab, HTML, CSS, Python, LaTeX, EEG, intraoperative recordings

Sprachen: German, English, French