



# JAN WEBER

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Hertie-Institute for Clinical Brain Research  
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I am a PhD candidate working at the intersection between cognitive and systems neuroscience. My work aims to identify how internal brain dynamics shape human cognition on different timescales. I seek to bridge the gap between hypothetical cognitive constructs (e.g. attention, decision-making) and try to follow a brain-based approach to identify their shared and unique neural signatures.



## RESEARCH EXPERIENCE

09/2020 - PRESENT

### PhD Candidate

Hertie-Institute for Clinical Brain Research  
University of Tübingen, Germany  
International-Max-Planck Research School for the Mechanisms of Mental Function and Dysfunction (MMFD)  
Human Intracranial Cognitive Neurophysiology Lab  
Supervisor: Dr. Dr. Randolph Helfrich

09/2019 - 08/2020

### Research Intern

Center for Human Brain Health  
University of Birmingham, UK  
The Neuronal Oscillations Research Group  
Supervisor: Prof. Dr. Ole Jensen

01/2019 - 12/2019

### Research Assistant

Institute of Medical Psychology and Behavioural Neurobiology  
University of Tübingen, Germany  
Supervisor: Prof. Dr. Steffen Gais

09/2017 - 12/2017

### Research Intern

Sunshine Coast Mind and Neuroscience Institute  
University of Sunshine Coast, Queensland, Australia  
Supervisor: Prof. Dr. Mathew Summers, Dr. Ben Isbel

06/2016 - 08/2020

### Research Assistant

Institute for Movement and Neurosciences  
German Sport University Cologne, Germany  
Supervisor: Prof. Dr. Dr. Stefan Schneider, Dr. Vera Abeln

## EDUCATION

09/2020 - PRESENT

### University of Tübingen

PhD Student in Neuroscience  
Hertie-Institute for Clinical Brain Research  
International-Max-Planck Research School for the Mechanisms of Mental Function and Dysfunction (MMFD)

10/2018 - 08/2020

### University of Tübingen

M.Sc. Master of Science Neural and Behavioral Sciences  
Graduate Training Center for Neuroscience, Tübingen

08/2014 - 08/2018

### German Sport University Cologne

B.Sc. Bachelor of Science Sports and Performance

## SKILLS

MATLAB

Python

Git

low medium high  
← skill level →

## FIRST AUTHOR PUBLICATIONS

1. **Weber, J.**, Solbakk, A. K., Blenkmann, A. O., Llorens, A., Funderud, I., Leske, S., Larsson, P. G., Ivanovic, J., Knight, R. T., Endestad, T., Helfrich, R. F. (2021). Population coding and oscillatory subspace synchronization integrate context into actions. *BioRxiv*.
2. **Weber, J.**, Timo, K., Abeln V. (2020). Shifts in broadband power and alpha peak frequency observed during long-term isolation. *Scientific Reports*.
3. Ben I.\*, **Weber, J.\***, Lagopoulos, J., Stefanidis, K., Anderson, H., Summers, M. (2020). Neural changes in early visual processing after 6 months of mindfulness training in older adults. *Scientific Reports*. \*shared first-authorship
4. **Weber, J.**, Abeln, V., Streichele, K., Foitschik, T., Stuckenschneider, T. (2020). Inefficient resource allocation is associated with reduced alpha activity in parietal regions in individuals with Parkinson's disease. *European Journal of Neuroscience*.
5. **Weber, J.**, Javelle, F., Klein, T., Foitschik, T., Crucian, B., Schneider, S., Abeln, V. (2019). Neurophysiological, neuropsychological, and cognitive effects of 30 days of isolation. *Experimental Brain Research*.

## CONTRIBUTING AUTHOR PUBLICATIONS

1. Stuckenschneider, T., Askew, C. D., **Weber, J.**, Abeln, V., Rüdiger, S., Summers, M. J., Schneider, S. (2020). Auditory event-related potentials in individuals with subjective and mild cognitive impairment. *Behavioural Brain Research*.
2. Stuckenschneider, T., Askew, C. D., Meneses, A. L., Baake, R., **Weber, J.**, Schneider, S. (2019). The effect of different exercise modes on domain-specific cognitive function in patients suffering from Parkinson's disease: a systematic review of randomized controlled trials. *Journal of Parkinson's Disease*.

## CONFERENCE TALKS & POSTERS

1. 2022: Poster Presentation: *From context to action: complementary roles of population dynamics and network oscillations*. Neurobiology of Cognition Gordon Research Conference, Maine, US
2. 2022: Poster Presentation: *Conjunctive coding of the past and present impairs human behavior*. Psychologie und Gehirn, Freiburg, Germany
3. 2022: Poster Presentation: *From context to action: complementary roles of population dynamics and network oscillations*. International Conference of Cognitive Neuroscience, Helsinki, Finland
4. 2020: Research Talk: *Shifts in broadband power and alpha-peak frequency observed during long-term isolation*. American Society of Gravitational and Space Research Annual Meeting (virtual)
5. 2019: Research Talk: *Encoding of Information - The role of a desynchronized brain state for information processing*. Neurowissenschaftliche Nachwuchskonferenz, Schramberg, Germany
6. 2018: Research Talk: *The more exercise, the higher the benefit during space missions? A comparison of two different exercise schedules within a space-analogue environment*. Human Physiology Workshop, German Aerospace Center Cologne, Germany
7. 2017: Research Talk: *Physical Activity - a countermeasure against distress during 30 days of isolation?* American Society of Gravitational and Space Research Annual Meeting, Seattle, US

## FUNDING & AWARDS

- >> 2022: DGPA Poster Award, Psychologie und Gehirn
- >> 2019: DAAD PROMOS Stipend (University of Birmingham, UK)
- >> 2017: DAAD PROMOS Stipend (University of Sunshine Coast, Queensland, Australia)

## WORKSHOPS & SUMMERSCHOOLS

- >> 2021: Linear Algebra for Neuroscientist, Donders Institute, Nijmegen, Netherlands
- >> 2019: Analyzing Neural Time Series Data, Donders Institute, Nijmegen, Netherlands
- >> 2018: Communicating Research, CAESAR, Bonn, Germany
- >> 2018: ESA Academy Human Space Physiology Workshop, ESA, Cologne, Germany

## SUPERVISION

- >> 2021: Gabriela Iwama  
M.Sc. student in Neural and Behavioral Sciences, IMPRS Tübingen, Germany  
co-supervision with Dr. Dr. Randolph Helfrich

## PEER REVIEW

- >> European Journal of Neuroscience (1)