Hugo Weissbart

Postdoctoral Researcher

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Education

Imperial College London *London, United Kingdom*

PhD Neurotechnology *2016 - 2020*

- Thesis title: Decoding speech comprehension from continuous EEG recordings
- Supervisor: Dr. Tobias Reichenbach

Imperial College London *London, Unitecd Kingdom*

MRes Neurotechnology *2015 - 2016*

- Advisor: Dr. Tobias Reichenbach

Imperial College London *London, UNitecd Kingdom*

MSc Physics *2013 - 2014*

- Thesis title: Effects of psilocybin on the human brain functional network
- Advisor: Dr. Tim Evans

ISAE Supaero *Toulouse, France*

Engineering degree *2010 - 2014*

- Majors in applied mathematics

Professional Experience

2020-2024 **Postdotcoral Researcher**, Donders Institute, Radboud University, the Netherlands

2020 **Research Assistant**, Imperial College London, UK

2014-2020 **Graduate Teaching Assistant**, Dept. Bioengineering, Imperial College London

Publications

H Weissbart, AE Martin. 2024. Structure and statistics jointly shape cross-frequency neural dynamics during speech comprehension. biorXiv, **in press**.

I Zioga, YJ Zhou, **H Weissbart**, AE Martin, S Haegens, Alpha And Beta Oscillations Differentially Support Word Production In A Rule-Switching Task, 2024, eNeuro

S Slaats, **H Weissbart**, J Schoffelen, AS Meyer, AE Martin, Delta-Band Neural Responses To Individual Words Are Modulated By Sentence Processing, 2023, Journal of Neuroscience

F Tezcan, **H Weissbart**, AE Martin, A Tradeoff Between Acoustic And Linguistic Feature Encoding In Spoken Language Comprehension, 2023, Elife

I Zioga, **H Weissbart**, AG Lewis, S Haegens, AE Martin, Naturalistic Spoken Language Comprehension Is Supported By Alpha And Beta Oscillations, 2023, Journal of Neuroscience

CW Coopmans, A Mai, S Slaats, **H Weissbart**, AE Martin, What Oscillations Can Do For Syntax Depends On Your Theory Of Structure Building, 2023, Nature Reviews Neuroscience

M Kegler, **H Weissbart**, T Reichenbach, The Neural Response At The Fundamental Frequency Of Speech Is Modulated By Word-Level Acoustic And Linguistic Information, 2022, Frontiers in Neuroscience

M Wairagkar, MR Lima, D Bazo, R Craig, **H Weissbart**, AC Etoundi, T Reichenbach, P Iyengar, S Vaswani, C James, P Barnaghi, C Melhuish, R Vaidyanathan, Emotive Response To A Hybrid-Face Robot And Translation To Consumer Social Robots, 2021, IEEE Internet of Things Journal

H Weissbart, KD Kandylaki, T Reichenbach, Cortical Tracking Of Surprisal During Continuous Speech Comprehension, 2020, Journal of cognitive neuroscience

S Kadir, C Kaza, **H Weissbart**, T Reichenbach, Modulation Of Speech-In-Noise Comprehension Through Transcranial Current Stimulation With The Phase-Shifted Speech Envelope, 2019, IEEE Transactions on Neural Systems and Rehabilitation Engineering

Presentations

Invited Talks

April 2024 - *Using computational models to bridge between neurobiology, psychology, and linguistic theory seminar*. Invited talk. Nijmegen, Netherlands.

January 2020 - *Thesis presentation*. Invited talk, Leuven, Belgium.

Teaching Experience

June 2023	**Tutorial on neural time series analysis using linear models**, Invited tutor at Cutting EEG Gardens in Nijmegen
March 2023	**Time Series Analysis for Cognitive Neuroscience**, PhD students, Max Planck Institute
2016 - 2019	**Electromagnetics**, Undergraduate students, Teaching assistant, Imperial College London
2016 - 2019	**Mathematics**, Undergraduate students, Teaching assistant, Imperial College London

Mentoring

2020-2021	**Filiz Tezcan**, PhD student (supervised by Andrea E Martin), Max Planck Institute for Psycholinguistics	*Nijemegen*
2020-2021	**Sophie Slaats**, PhD student (supervised by Andrea E Martin), Max Planck Institute for Psycholinguistics	*Nijemegen*
2019	**Karen Wendt**, MSc student, Imperial College London	*London*
2015	**Marina Saiz Alia**, MSc student, Imperial College London	*London*

Outreach & Professional Development

June 2023	**Cutting EEG gardens, Nijmegen**, *Tutor*: Linear models in the analysis of neural time series	*Nijmegen*
2016-2017	**Imperial public outreach**, Setting up a small public EEG experience with commercial headsets, experience based on real-time alpha power of participants	*London*