

Hugo Weissbart

POSTDOCTORAL RESEARCHER

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Professional Experience

- 2020-2024 **Postdoctoral Researcher**, Donders Institute, Radboud University, the Netherlands
2020 **Research Assistant**, Imperial College London, UK
2014-2020 **Graduate Teaching Assistant**, Dept. Bioengineering, Imperial College London

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, United Kingdom

MRES NEUROTECHNOLOGY

2015 - 2016

- Advisor: Dr. Tobias Reichenbach

Imperial College London

London, United 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

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 - *Linear forward models for the analysis of cortical response to naturalistic speech* at the seminar: "Using computational models to bridge between neurobiology, psychology, and linguistic theory". Nijmegen, Netherlands.

January 2020 - *Cortical tracking of linguistic features in continuous EEG*. Invited talk by T. Francart, 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