

Stanford



Elisabeth Heremans

Postdoctoral Scholar, Psychiatry

Bio

BIO

I am a postdoctoral researcher at the Mignot Lab in Stanford University. My background is in biomedical engineering, signal processing and machine learning. I obtained a BSc and MSc degree from KU Leuven in 2017 and 2019, respectively. After this, I performed a research internship at École Polytechnique Fédérale De Lausanne in the Neuroengineering Lab. I did my PhD (2020-2024) under the supervision of Prof. Maarten De Vos, focusing on automated sleep staging using electroencephalography and polysomnography signals. During my PhD, I also performed a research stay at the University of Cambridge (van der Schaar lab) and an internship at Microsoft Research (in the Brain-Computer Interfaces project).

During my postdoc at the Mignot Lab, I aim to use large sleep datasets to find early markers of depression or other disorders related to sleep. My main research interest lies in the intersection between AI and neuroscience, and using AI for neuroscientific applications.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Katholieke Universiteit Leuven (2024)
- Master of Science, Katholieke Universiteit Leuven (2019)
- Bachelor of Science, Katholieke Universiteit Leuven (2017)
- PhD, KU Leuven , Doctor of Engineering Science (Electrical Engineering) (2024)
- MSc, KU Leuven , Engineering Science (Biomedical Engineering) (2019)
- BSc, KU Leuven , Engineering Science (Computer Science) (2017)

STANFORD ADVISORS

- Emmanuel Mignot, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **Personalization of Automatic Sleep Scoring: How Best to Adapt Models to Personal Domains in Wearable EEG** *IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS*
Lorenzen, K. P., Heremans, E. M., de Vos, M., Mikkelsen, K. B.
2024; 28 (10): 5804-5815
- **Automated remote sleep monitoring needs uncertainty quantification** *JOURNAL OF SLEEP RESEARCH*
Heremans, E. M., van den Bulcke, L., Seedat, N., Devulder, A., Borzee, P., Buyse, B., Testelmans, D., van den Bossche, M., van Der Schaar, M., De Vos, M.
2025; 34 (1): e14300