

# GABRIEL WEINDEL

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## ACADEMIC POSITIONS AND GRANTS

*Employment*

06/2025 - present    **Postdoctoral researcher**, Institut de psychologie,  
*Université de Lausanne*

02/2022 - 06/2025    Postdoctoral researcher 0.5 FTE  
Advisor: Leendert van Maanen, *Division of Experimental psychology,*  
*Utrecht University (NL)*

03/2022 - 03/2025    Postdoctoral researcher 0.5 FTE  
Advisor: Jelmer P. Borst & Leendert van Maanen, *Bernoulli Institute*  
*for Mathematics, Computer Science and Artificial Intelligence, University*  
*of Groningen (NL)*

04/2021 - 04/2021    Temporary Lecturer, Doctoral school  
*cognition langage et éducation, Aix-Marseille University (AMU, FR)*

10/2020 - 12/2020    Research Engineer,  
*Laboratoire de Neurosciences Cognitives, Centre Nation. de la Recherche*  
*Scientifique (FR)*

09/2019 - 09/2020    Research and teaching assistant, *Laboratoire de*  
*Psychologie Cognitive, AMU (FR)*

10/2016 - 09/2019    Employed doctoral student,  
*Laboratoire de Psychologie Cognitive, AMU (FR)*

### *Grants*

- Postdoctoral Fellowships *Marie Skłodowska-Curie Actions* (2022), 203 k€
- Interdisciplinary PhD grant from *Collège Doctoral* (2016), university wide competition (AMU - *Ministère de l'Enseignement Supérieur et de la Recherche*), 100 k€

## SELECTED RESEARCH OUTPUTS

### Publications

- Rasanan, A.H.H., Schumacher L., Nunez, M. D., **Weindel, G.** & Rieskamp, J. (2026). Non-decision time-informed collapsing threshold diffusion model: A joint modeling framework with identifiable time-dependent parameters. DOI: [10.7554/eLife.109730.1](https://doi.org/10.7554/eLife.109730.1)
- **Weindel, G.**, Borst, J.P., & van Maanen L. (2025). The locus of decisions in the single-trial electroencephalogram. DOI: [10.7554/eLife.108049.3](https://doi.org/10.7554/eLife.108049.3)
- Boag, R. J., ..., **Weindel, G.**, ..., Brown S. D., & Forstmann, B. U. (2025) An Expert Guide to Planning Experimental Tasks For Evidence-Accumulation Modeling. DOI:[10.1177/251524592513361](https://doi.org/10.1177/251524592513361)
- **Weindel, G.**, van Maanen, L., Borst, J. P. (2024). Trial-by-trial detection of cognitive events in neural time-series. DOI: [10.1162/imag\\_a00400](https://doi.org/10.1162/imag_a00400)
- **Weindel, G.**, Gajdos, T., Burle, B., & Alario, F.-X. (2022). The Decisive Role of Non-Decision Time for Interpreting the Parameters of Decision Making Models. DOI: [10.17605/OSF.IO/T2AR3](https://doi.org/10.17605/OSF.IO/T2AR3)
- **Weindel, G.**, Anders, R., Alario F.-X. & Burle B. (2021). Assessing model-based inferences in decision making with single-trial response time decomposition. DOI:[10.1037/xge0001010](https://doi.org/10.1037/xge0001010).

### Symposia and workshops

10/2025 · **Weindel, G.**, Hidden multivariate patterns to locate cognitive events on a by-trial basis. PracticalMEEG online (see the [lecture recording](#)).

09/2025 · **Weindel, G.** (Initiator) & van Maanen, L. & Borst, J.P., Decision Signal(s) In The Electro-encephalogram. International Conference on Cognitive Neuroscience (ICON) *Porto* (see the [Abstract book](#)).

10/2023 · **Weindel, G.** (invited) & Borst, J.P.. Multivariate pattern analysis with hidden semi-Markov models. Cutting Gardens, local conference at *Ghent* workshop (see the associated [Github repository](#)).

07/2023 · van Maanen, L., **Weindel, G.** (co-organizer), & Borst, J.P. Symposium: Investigating Within-Trial Timing of Cognitive Processes with EEG. MathPsych/ICCM symposium 2023 conference at *Amsterdam*.

07/2023 · **Weindel, G.** (co-organizer), van Maanen, L., & Borst, J.P. Detecting single-trial cognitive events in EEG using hidden semi-Markov pattern analysis and the HMP python package. MathPsych/ICCM workshop, 2023 conference at *Amsterdam* (see the associated [Github repository](#)).

04/2021 · **Weindel, G.** (invited) Linear mixed models and Bayesian statistics, Course for AMU doctoral students, *Marseille* (see [associated webpage](#))

### Invited talks

08/2023 · van Maanen, L., **Weindel, G.**, & Borst, J.P. Windows on Science, Air Force Research Laboratory *Dayton*.

10/2022 · **Weindel, G.** The non-decision time in decision-making models, presented at the School of Psychology of Nanjing Normal University *online*. [Recording](#).

05/2021 · **Weindel, G.** On the measurement and estimation of cognitive processes with electrophysiological recordings and reaction time modeling. Presented at the Laboratoire de Psychologie et NeuroCognition, *Grenoble*.

07/2020 · **Weindel, G.**, Anders, R., Alario, F.-X., & Burle, B.. Assessing model-based inferences in decision making with single-trial response time decomposition. Presented at Virtual MathPsych/ICCM (2020) *online*, [recording](#).

## EDUCATION

- Ph.D.* 10/2016 - 03/2021 Ph.D. in psychology and neuroscience, AMU,  
**PhD thesis.** On the measurement and estimation of cognitive processes with electrophysiological recordings and reaction time modeling. *Supervisors:* F.-Xavier Alario & Boris Burle.  
See <https://thesiscommons.org/342zp/> and the [PhD defense recording](#)
- M.Sc.* 09/2014- 10/2016 Master in cognitive psychology and neuropsychology, with highest honours, AMU  
**1<sup>st</sup> year master thesis.** Response selection through temporal orienting : an electromyography study. *Supervisors:* Jenny Coull & Boris Burle.  
**2<sup>nd</sup> year master thesis** Decision making models : a common formalism to link psychology and neurophysiology. *Supervisor:* Boris Burle.
- Bachelor* 09/2011 - 06/2014 Bachelor in psychology, with high honours, AMU  
**3<sup>rd</sup> year Bachelor thesis.**  
Spatio-temporal brain dynamics of orthographic, morphological and semantic processing in dyslexic university students: a MEG study.  
*Supervisors:* Eddy Cavalli & Pascale Colé.

## TEACHING

- Selected lectures*
- Spring 2021 · An introduction to R programming, Course for doctoral students, AMU (4 hours, see [Github repository](#))
- Spring 2020 · Mental chronometry and linear mixed models: 1<sup>st</sup> year master of cognitive science, AMU (11 hours, see [Github repository](#))
- Spring 2020 · Education to research and scientific elaboration: 1<sup>st</sup> and 2<sup>nd</sup> year Master in cognitive psychology and neuropsychology, AMU (9 hours)
- Spring 2020 · Experimental design: 3<sup>rd</sup> year psychology bachelor, AMU (10 hours, see [Github repository](#))
- Fall 2019 · Qualitative and model-based analysis of individual differences: 1<sup>st</sup> year Master in cognitive psychology and neuropsychology, AMU (9 hours)
- Supervision and mentoring*
- Supervision of Neuroscience and Cognition MSc theses at Utrecht University (2, 1 co-supervision)
  - Supervision of Neuropsychology MSc theses at Utrecht University (2)
  - Supervision of AI bachelor theses at Utrecht University (2 co-supervisions)
  - Supervision 3rd year AMU Psychology bachelor theses (2)
  - Co-Supervision AI MSc theses at the university of Groningen (4 co-supervisions)
  - Supervision Neuroscience MSc theses (AMU) (2 co-supervisions)

## OTHER INFORMATION

<i>Ad-hoc reviewing</i>	Behavior research methods (1), Cognitive research (1), Communications biology (1), Computational Brain & Behavior (1), Frontiers in Psychology (1), ICCM proceedings (2), Imaging neuroscience (1), Journal of experimental psychology: general (1), Memory & Cognition (1), NeuroImage (1), Neuropsychologia (2), PLOS computational biology (1)
<i>Workshops attended</i>	<p>2019 · Cognitive Control and Performance Monitoring, Oostduinkerke (Belgium)</p> <p>2018 · MNE-Python workshop at AMU, Marseille (France)</p> <p>2018 · 4 days Masterclass in Bayesian Statistics at <i>Centre international de Rencontres Mathématiques</i>, Marseille (France)</p> <p>2016 · Bayesian Estimation of Evidence Accumulation Architectures in Neuroscience and Cognition, 5 days summer school by Scott Brown, Andrew Heathcote, Dora Matzke, Brandon Turner at <i>Boston University</i>, Boston (MA, USA)</p>
<i>Research skills</i>	Cognitive modeling · Cognitive tasks and experimental design · (General) Linear (mixed) models · Bayesian estimation and statistics · Electro-encephalography · Electro-myography
<i>Computer skills</i>	Python (e.g. numpy, mne, HDDM, pystan, arviz, matplotlib, seaborn, pandas) · $\text{\LaTeX}$ · R · Stan · jupyter notebooks · Brainvision · PsychoPy · Linux · Git · Github · bash · Open office suite · Distant computing (ssh) · Server administration under Debian
<i>Community service</i>	<p>2014-2015 · President of the federation of AMU student's associations, Fédération Aix-Marseille Interasso.</p> <p>2013-2015 · Elected student member at the Academic council of Aix-Marseille Université ("<i>Commission Formation Vie Universitaire</i>")</p> <p>2014 · Vice president in charge of higher education and research at the federation of AMU student's associations, Fédération Aix-Marseille Interasso.</p> <p>2013-2015 · President of the association for psychology students, Psychaid.</p> <p>2012-2014 · Elected student member at the Psychology council of Aix-Marseille University</p> <p>2012-2013 · Vice-president in charge of communication at the association for psychology students, Psychaid.</p>
<i>Languages</i>	<p>ENGLISH · Advanced</p> <p>FRENCH · Native speaker</p> <p>GERMAN · Native speaker</p>