

# Raphael Vallat

## Curriculum Vitae

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📄 [raphaelvallat.github.io](https://github.com/raphaelvallat)

French, 25 years old



### Education and diploma

- 2009 Scientific baccalaureate, *cum laude*
- 2012 Bachelor degree of Cognitive Sciences, *ranked 1st*, Lyon 2 University
- 2014 Master degree in Neuroscience, *cum laude*, Lyon 1 University
- 2014–17 PhD program in Cognitive Neurosciences, ongoing (CRNL)  
Lyon Neuroscience Research Center (CRNL) - PhD defense in December 2017

### Fellowship and awards

- 2012–14 Two-year merit scholarship, from the French Ministry of Education
- 2014–17 Three-year PhD fellowship, from the French Ministry of Higher Education and Research

### Teaching activities

**Teacher in Neuroscience** (200h), since October 2014 (Lyon 1 University)

Neurobiology in 1st year of Preparatory class

Neurobiology in 2nd year of Bachelor Degree in Biology

Social science in 1st year of Medicine

fMRI analysis (CONN Toolbox) in Master degree in Neuroscience

### Specific skills

#### Project

- 2017–pres Sleep: an open-source Python software for visualization and scoring of sleep data. [ [Link](#) ]

#### Programming skills

- Advanced Python, Matlab
- Intermediate  $\text{\LaTeX}$ , FSL, HTML, Shell, R, Presentation

#### Neurosciences

- Methodology Polysomnography and sleep studies, combined EEG-fMRI, resting-state fMRI, behavioural studies
- Analysis Signal processing, Sleep scoring and EEG/ERP analyses (*Elan software*)  
Functional and connectivity MRI analyses (*CONN Toolbox*, *SPM*, *FSL (MELODIC)*, *Nipype*)

#### Formations

- 2016 fMRI course (3 days) organized by the Neuroscience and Cognition Doctoral School, Lyon, FR
- 2015 Second Brain Connectivity course (4 days) organized by the Grenoble Institute of Neuroscience, FR
- 2014 EEG-fMRI workshop (2 days) organized by Brain Products GmbH, Lyon, FR

#### Science popularization

- 2016 Organizer of the Doctoral Day of the Lyon Federative Research Structure in Health
- 2015 Invited oral presenter for a general public conference on sleep and dreams (1h, at Lyon town hall)

Organizer of a thematic week on neuroscience for 6 high-school students

Organizer and chairman of "Les Saisons du CRNL" conference on neurosciences and society

### Languages

French Mother tongue

English Fluent

Italian Beginner level

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## Publications

### Articles

- 2017 Vallat R., Lajnef T., Eichenlaub J.-B., Berthomier C., Jerbi K., Morlet D., and Ruby P. (2017). Increased Evoked Potentials to Arousing Auditory Stimuli during Sleep: Implication for the Understanding of Dream Recall. *Frontiers in Human Neuroscience*, 11. <https://doi.org/10.3389/fnhum.2017.00132> - [ PDF ]

Vallat R., Chatard B., Blagrove M. & Ruby P. Characteristics of the memory sources of dreams: a new paradigm to take mundane and remote memories into account (*submitted*)

Vallat R., Meunier D., Turker B., Nicolas A. & Ruby P. Functional connectivity at awakening: the cerebral correlates of sleep inertia assessed using combined EEG-fMRI (*in preparation*)

Combrisson E.\*, Vallat R.\*, Eichenlaub J.-B., Jerbi K. & Ruby P. Sleep: a Python open-source software for visualization and scoring of sleep data (*in preparation*)

Ruby P., Chatard B., Vallat R., Hoyer R. & Bidet-Caulet A. Top-down and bottom-up attentional processes in high and low dream recallers: an EEG study (*in preparation*)

Plailly J., Villalba M., Vallat R., Nicolas A. & Ruby P. Recalling a dream related to a recent experience: does it help episodic memory consolidation? (*in preparation*)

### Oral presentations and posters

- 2016 Vallat R., Meunier D., Turker B., Nicolas A & Ruby P. Sleep inertia and functional connectivity between brain regions at awakening: an EEG-fMRI study. *Poster/abstract for ESRS conference (Italy) and FENS conference (Denmark)*

Vallat R., Meunier D., Turker B., Nicolas A & Ruby P. Sleep inertia and functional connectivity between brain regions at awakening: an EEG-fMRI study. *Oral presentation for IASD conference (Netherlands)*

- 2015 Vallat R., Eichenlaub J.-B., Morlet D. & Ruby P. Macro and micro structure of sleep in high and low dream recallers. *Oral Presentation for NPSA conference (Netherlands) and IASD conference (USA)*

Vallat R., Eichenlaub J.-B., Morlet D. & Ruby P. Macro and micro structure of sleep in high and low dream recallers. *Poster for ASSC conference (France)*

- 2014 Vallat R., Eichenlaub J.-B., Morlet D. & Ruby P. Macro and micro structure of sleep in high and low dream recallers. *Oral presentation for IASD conference (USA)*

### Review

- 2017 Co-reviewer for Journal of Cognitive Neuroscience

- 2017 Reviewer for International Journal of Dream research

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## Activities

CRNL Elected representative of the non-permanent members in CRNL council

Supervision of two master students (Research master in Neuroscience)

Music Guitar and bass (10 years, self-learner), composition

Sports Swimming, martial arts, ski, hiking

## List of referees

Center director: Olivier Bertrand (olivier.bertrand@inserm.fr)

PhD supervisor: Perrine Ruby (perrine.ruby@inserm.fr)