Raphael Vallat

Curriculum Vitae

46 rue de Cuire
Lyon, France
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raphael.vallat@inserm.fr
raphaelvallat.github.io
French, 26 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 / Neuroanatomy, 1st and 2nd year of Bachelor Degree

Social science, 1st year of Medicine

Neuro-imaging, Master degree in Neuroscience

Supervision of two master students (Research master in Neuroscience)

Elected representative of the non-permanent members in CRNL council

Specific skills

Software development

2017–pres Sleep: an open-source Python software for visualization, analysis and staging of sleep data.

Neurosciences

Methodology Polysomnography and sleep studies, combined EEG-fMRI, resting-state fMRI, behavioural studies

Analysis Signal processing, Sleep scoring and ERP analyses

Functional and connectivity MRI analyses *(CONN Toolbox, SPM, FSL, Nipype)*

Programming Python, Matlab, LaTeX, HTML, Shell, R, Presentation

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

Outreach

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

Publications

Articles

2017 Vallat R., Lajnef T., Eichenlaub J.-B., Berthomier C., Jerbi K., Morlet D., & 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

Combrisson E.*, Vallat R.*, Eichenlaub J-B., O'Reilly C., Lajnef T., Guillot A., Ruby P. & Jerbi K. Sleep: an open-source python software for visualization, analysis and staging of sleep data. Frontiers in Neuroinformatics, 11. https://doi.org/10.3389/fninf.2017.00060 *Co-first authors

Vallat R., Chatard B., Blagrove M. & Ruby P. Characteristics of the memory sources of dreams: a new version of the content-matching paradigm to take mundane and remote memories into account. Plos One, 12. https://doi.org/10.1371/journal.pone.0185262

Vallat R., Eskinazi M., Nicolas A. & Ruby P. Sleep and dream habits in a sample of French students *(under review, Journal of Sleep Research)*

In prep Vallat R., Meunier D., Nicolas A. & Ruby P. Reduced default mode network connectivity and anti-correlation in the minutes following awakening from N2 and N3 sleep: an EEG-fMRI study.

Vallat R., Nicolas A. & Ruby P. Brain functional connectivity upon awakening from sleep predicts between-subject differences in dream recall frequency.

Vallat R., Nicolas A. & Ruby P. High dream recall frequency is associated with increased functional connectivity in the default mode network during wakefulness.

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.

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

Oral presentations and posters

2017 Combrisson E.*, Vallat R.*, Eichenlaub J-B., O'Reilly C., Lajnef T., Guillot A., Ruby P. & Jerbi K. Sleep: an open-source python software for visualization, analysis and staging of sleep data. *Poster/abstract for WSC conference (Czech Republic)*

Vallat R., Nicolas A. & Ruby P. Brain functional connectivity upon awakening from sleep predicts between-subject differences in dream recall frequency *(Oral presentation at IASD conference (USA))*

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

2015 Vallat R., Eichenlaub J-B., Morlet D. & Ruby P. Increased Evoked Potentials to Arousing Auditory Stimuli during Sleep: Implication for the Understanding of Dream Recall. *Oral Presentation for NPSA (Netherlands) and IASD (USA) conference, Poster/asbtract for ASSC conference (France)*

Interests

Music Guitar and string instruments (10 years, self-learner), music composition

Sports Swimming (10 years), martial arts (7 years), ski, hiking, climbing

List of referees

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

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