Raphael Vallat

Curriculum Vitae

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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   <u>Vallat R.</u>, 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.*, <u>Vallat R.*</u>, 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

<u>Vallat R.</u>, 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. *(In press, Plos One)*

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

In prep   <u>Vallat R.</u>, 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.

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

<u>Vallat R.</u>, 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., <u>Vallat R.</u>, 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., <u>Vallat R.</u>, 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.*, <u>Vallat R.*</u>, 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)*

<u>Vallat R.</u>, 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   <u>Vallat R.</u>, 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   <u>Vallat R.</u>, 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)