

Chaire of Junior Professor - Matthieu Gilson

General information

BraiNets
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Education and research experience

2022	Post-doct researcher in Dynamic Mapping of the Brain', Institut de Neurosciences des Systèmes (INS, UMR1106), Marseille (France)
2020-2021	Post-doct researcher at 'Theory of multi-scale neuronal networks', INM-6, Jülich Forschungszentrum (Germany)
2014-2020	Post-doct researcher at 'Computational Neuroscience Group', Universitat Pompeu Fabra, Barcelona (Spain)
2010-2013	Post-doct researcher at 'Lab for Neural Circuit Theory', RIKEN Brain Science Institute, Wako-shi (Japan)
2005-2009	Ph.D. at Electrical and Electronic Engineering Department, The University of Melbourne (Australia) Thesis: Biological learning mechanisms in spiking neuronal networks
2001-2003	M.Sc.A. at Electrical and Electronic Engineering Department, École Polytechnique de Montréal, (Canada) Research project in machine learning in artificial neural networks
1998-2001	Engineer student at École Polytechnique, Palaiseau (France), https://ax.polytechnique.org/addressbook/fullsearch/index Major in applied mathematics and computer science

Funding

2022	Chaire of Junior Professor, Agence Nationale pour la Recherche (ANR) + AMidex, 250 keur
2020	MSE visiting fellowship at The University of Melbourne (Australia), 3 kAUD
2016-2018	Marie Skłodowska-Curie Action IF fellowship (H2020-MSCA-656547, NeuArc2Fun "Biological neural networks: from structure to function"), European Commission, 200 k€, https://matthieugilson.eu/proj/NeuArc2Fun.html
2005-2009	PhD scholarship and NICTA top-up scholarship from The University of Melbourne (Australia), 50 kAUD

Commissions of trust

2021-now	Review editor for Frontiers in Network Psychology (https://loop.frontiersin.org/people/12320/overview)
2019	Comité scientifique de la Commission CE37 (funding selection committee) for Agence Française de Recherche (ANR), (https://anr.fr/fileadmin/documents/2019/Ces-aapg-2019.pdf)
2013-2015	Guest editor for special topic on ‘Emergent Neural Computation from the Interaction of Different Forms of Plasticity’ in Frontiers in Computational Neuroscience
2009-now	Reviewer for scientific journals: PLoS Computational Biology, Biological Cybernetics, Frontiers in Computational Neuroscience, Journal of Computational Neuroscience, Journal of Mathematical Neuroscience, Neural Computation, Journal of Neuroscience Research, Brain Structure and Function, Scientific Reports, Mathematical Biosciences and Engineering, Journal of Neural Engineering, eNeuro, Nature Computational Science
2010, 2016, 2018, 2019, 2021	Reviewer for conferences OCNS annual meeting (Organization for Computational Neuroscience), COSYNE

Teaching

2019, 2020, 2021	Course on neuronal plasticity for the master in computational neuroscience at Maastricht University (https://surfdrive.surf.nl/files/index.php/s/zwmiPeJ5SEiA8Qn)
2019	Tutorial on “Model-based analysis of brain connectivity from neuroimaging data” during CNS 2019 conference in Barcelona (https://www.cnsorg.org/cns-2019-tutorials)
2018, 2019	Courses “Introduction to analysis of neuronal data and brain connectivity” et “Hands-on course on neural data science” during ‘XII and XIII Summer School UPC-UB’ de l’Universitat Politècnica de Catalunya in Barcelona (https://matthieugilson.eu/events/oneweek_UPC_summertimecourse_2019.html , https://matthieugilson.eu/events/oneweek_UPC_summertimecourse_2018.html)
2018, 2019, 2021	EITN Spring/Fall School in Computational Neuroscience (https://www.eitn.org/index.php/calendar-event/eventdetail/715/-/spring-school)
2017	5th Human Brain Project School on Future Medicine (https://education.humanbrainproject.eu/web/5th-school/scientific-programme-application)

Supervision

- 2020 - now: 1 PhD student / 2 master students in cosupervision
Theory of multi-scale neuronal networks’, INM-6, Jülich Forschungszentrum, Germany
- 2015 - 2019: 6 PhD students (4 in cosupervision) / 7 master students (2 en cosupervision)
Computational Neuroscience Group, Universitat Pompeu Fabra, Spain

- 2012 - 2013: 1 junior post-doct researcher / 1 master student
Lab for Neural Circuit Theory, Riken Brain Science Institute, Japan
- 2011 - 2014: 1 PhD student
Department of Electrical and Electronic Engineering, University of Melbourne, Australia

Organization of events and contributions to conferences

- Co-organization of workshop “Functional network dynamics: Recent mathematical perspectives” during OCNS annual meeting 2019 in Barcelona (Spain), 50 participants
- Organization of workshop “Fingerprints of brain dynamics estimated from neuroimaging data and application to discrimination between individuals, tasks and/or conditions” during OCNS annual meeting 2017 in Antwerp (Belgium), 50 participants
- Co-organization of workshop “Multi-area models of cortex” during OCNS annual meeting 2016 in Jeju (Korea), 60 participants
- Co-organization of workshop “Synaptic plasticity and homeostasis” during OCNS annual meeting 2015 in Prague (Czech Republic), 50 participants
- Invited oral presentations: Neural Coding 2016, Köln, Allemagne (https://events.uni-koeln.de/frontend/index.php?folder_id=114); Satellite workshop ‘The Complex Brain’ of EECS’14, Lucca (Italie) en 2014, (<https://sites.google.com/site/braineccs14/home/invited-speakers>); Workshop on ‘Inhibitory synaptic plasticity’, COSYNE 2012, (http://www.cosyne.org/c/index.php?title=Cosyne_12_workshops); Workshop on Learning and Plasticity, in Marseille (France) en 2011; Joint BCCN Freiburg-Berlin Workshop on Point Processes in Neuroscience en 2011
- Poster presentations at OCNS 2007, ICONIP 2007, OCNS 2008, NeuroComp 2008, COSYNE 2009, OCNS 2009, ICCN 2011, OCNS 2011, Barccsyn 2014, OCNS 2014, OCNS 2015, Barccsyn 2016, OCNS 2016, Neural Coding 2016, Brain Modes 2016, OCNS 2017, Coupling and Causality in Complex Systems 2017, Barccsyn 2018, Neural Coding 2018, Cosyne 2019, OCNS 2019, Bernstein Conference 2019, OCNS 2021