

# *CURRICULUM VITAE*

## Personal information

Name            Jorge Eduardo Ramírez Ruiz  
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## Education

2018 -            PhD candidate in Information and Communication Technologies (Neuroscience) at  
present           the Universitat Pompeu Fabra (UPF) in Barcelona, Spain.

2016 – 2018    Master in Physics at Université de Sherbrooke, Canada.

2011 – 2016    Bachelor of Science, Physics at Universidad Nacional Autónoma de México (UNAM).

## Publications

2021            Ramírez-Ruiz, J., & Moreno-Bote, R. (2021). “Optimal allocation of finite sampling capacity in accumulator models of multi-alternative decision making.” arXiv preprint [arXiv:2102.01597](https://arxiv.org/abs/2102.01597).

2020            Moreno-Bote, R., Ramírez-Ruiz, J., Drugowitsch, J., & Hayden, B. Y. (2020). “Heuristics and optimal solutions to the breadth–depth dilemma.” [PNAS](https://doi.org/10.1073/pnas.19799-19808), **117**(33), [19799-19808](https://doi.org/10.1073/pnas.19799-19808).

2017            Ramírez-Ruiz, J., Boutin, S., & Garate, I. (2017). “NMR in an electric field: A bulk probe of the hidden spin and orbital polarizations.” [Physical Review B](https://doi.org/10.1103/PhysRevB.96.235201), **96**(23), [235201](https://doi.org/10.1103/PhysRevB.96.235201). Editors’ suggestion.

2016            Boutin, S., Ramírez-Ruiz, J., & Garate, I. (2016). “Tight-binding theory of NMR shifts in topological insulators Bi<sub>2</sub>Se<sub>3</sub> and Bi<sub>2</sub>Te<sub>3</sub>.” [Physical Review B](https://doi.org/10.1103/PhysRevB.94.115204), **94**(11), [115204](https://doi.org/10.1103/PhysRevB.94.115204).

## Conferences

2021            Poster at the Spanish Neuroscience Society conference (SENC).

                    Ramírez-Ruiz, J., Anzai, A., Drugowitsch, J., DeAngelis, G. and Moreno-Bote R. “Behavioral mechanisms underlying visually-guided control of steering”.

Poster at COSYNE.

Ramírez-Ruiz, J. and Moreno-Bote, R. “Optimal allocation of finite sampling capacity in accumulator models of multi-alternative decision making”.

Poster at the BARCCSYN conference.

Ramírez-Ruiz, J., Mastrogiuseppe, C. and Moreno-Bote, R. “Magic number five: The breadth–depth dilemma in accumulator and tree-like models of decision making.”

## Teaching (assistantships)

2021	Introduction to Network Science/Spanish (UPF)
	Computational Neuroscience/English (UPF)
	Linear Algebra/Spanish (UPF)
2020	Computational Neuroscience/English (UPF)
	Calculus/Spanish (UPF)
2018	Statistical Physics II/French (Université de Sherbrooke).
2015	Statistical Physics (UNAM).
	Modern Physics/Spanish (UNAM).

## Funding and research stays

2019	Doctoral scholarship FPI (Spanish Education Ministry).
2016	Mitacs Globalink Graduate Fellowship for a Master’s degree in Canada.
2015	Mitacs Globalink research internship at the Université de Sherbrooke.

## Schools and exchanges

2020	Neuromatch Academy, interactive track.
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- 2019 Cellular, Computational and Cognitive Neuroscience Summer School at Princeton University, USA.
- 2018 49th IFF Spring school “Physics of Life” in Jülich, Germany.
- 2013 Exchange semester at the University of California, Santa Barbara.

## Technical skills

Programming languages: Julia, C++ and knowledge of Python and Matlab.

Experience with parallel computing techniques PyCUDA and OpenMP.

## Languages

Fluent in Spanish, English and French. Basic knowledge of Italian.

## Further accomplishments

- 2010 International Baccalaureate, Diploma Programme. Score of 39 out of 45 points.
- Silver medal representing Mexico at the Ibero-American Physics Olympiad held in Panama City, Panama.