

Pedro L. C. Rodrigues

✉ pedro.rodrigues@inria.fr
📄 [plcrodrigues.github.io](https://github.com/plcrodrigues)

Research Positions

Inria Starting Faculty Position, Statify team, Inria, Grenoble, France. Since 01/Oct/2021. Permanent position (CDI).

Post-doctoral researcher, Parietal team, Inria, Palaiseau, France. Worked in Alexandre Gramfort's group from 01/Mar/2020 until 30/Sep/2021.

- **Project:** Algorithms for simulation-based inference with applications to computational neuroscience.

Doctoral researcher, VIBS Team, GIPSA-lab, Grenoble, France. Worked under the supervision of Dr. Marco Congedo and Prof. Christian Jutten from 01/Oct/2016 until 31/Dec/2019.

- **Project:** Methods for analysis and classification of multivariate time series. Applications mainly to neural signals.

Education

Ph.D. in "Signal, Image, Parole, and Télécoms", Université Grenoble Alpes, Grenoble, France, from 01/Oct/2016 until 30/Sep/2019. Ph.D. defense: 16/Oct/2019. Jury presided by Patrick Flandrin and composed by Alexandre Gramfort (reader), Yannick Berthoumieu (reader), Fabien Lotte, and Stéphane Canu. Supervision of Dr. Marco Congedo and Prof. Christian Jutten.

- Title of the thesis: "*Exploring invariances of multivariate time series via Riemannian geometry: validation on EEG data*". Available at tel-02345388

Master of science, Universidade de São Paulo, São Paulo, Brazil, from 01/Jan/2014 until 31/Jul/2016. Supervision of Prof. Luiz A. Baccalá.

- Title of the dissertation: "*Algorithms for inference of neural connectivity in event-related potentials*". DOI: [10.11606/D.3.2017.tde-17032017-094453](https://doi.org/10.11606/D.3.2017.tde-17032017-094453)

Diplôme de l'Ecole Polytechnique, Ecole Polytechnique, Palaiseau, France, from 01/Apr/2011 until 31/Jul/2015. Double degree program with the Escola Politécnica da Universidade de São Paulo, Brazil.

Engineering degree in Telecommunications, Escola politécnica da Universidade de São Paulo, São Paulo, Brazil, from 01/Jan/2008 until 31/Dec/2013. Double degree program with the Ecole Polytechnique, France.

Community activities

Member of the organization committee for the colloquium GRETSI 2023 happening in Grenoble, France, between 28 August 2023 and 01 September 2023.

Member of the technical development committee at Inria Grenoble (CDT). This committee is responsible for evaluating projects to finance research engineers for the different teams of the center.

Co-organizer of the scientific seminars for the DATA department of the Laboratoire Jean Kuntzmann. Seminars are every Thursday on topics such as machine learning, probability, optimization, etc. The usual attendance is of around 40 people.

Reviewer for NeuroImage (impact factor: 5.90), IEEE Transactions on Biomedical En-

gineering (impact factor: 4.42), IEEE Transactions on Signal Processing (impact factor: 5.23), Journal of Machine Learning Research (impact factor: 4.10), and NeurIPS 2022.

Regular contributions to several open-source packages:

- `pyriemann`, a Python package for manipulating covariance matrices respecting the intrinsic geometry of the manifold that they define.
- `MOABB`, a comprehensive benchmark of popular classification methods for brain-computer interface applied on an extensive list of freely available EEG datasets.
- `sbi`, a PyTorch package for simulation-based inference.

Invited talk at the “Covariance matrix advances for machine learning” day for the GdR-ISIS group from the CNRS. Online presentation in Dec/2020.

Co-creator and maintainer of 7 publicly available datasets containing experimental recordings carried out at the GIPSA-lab in Grenoble, France. Each dataset contains a link for download, a detailed documentation, and a repository with minimal working code. See plcrodrigues.github.io/code for details.

Organization of a one-day workshop on “Benchmarking BCI classification methods” with Prof. Sylvain Chevallier (Université Paris-Saclay) during the Graz BCI Conference 2019 in Austria, 20 attendees.

Presentation at the Pint of Science festival sharing to a wide audience the latest research developments on brain-computer interfaces. Grenoble, May/2017.

Teaching experience

Professor, *ENSIMAG (Grenoble INP)*, I am the main teacher for the course on “Statistical analysis and document mining” (CM, TD, TP) given to ENSIMAG 2A students and MSIAM UGA 1A students, 42 hours in total in 2022 and 2023. Prof. Olivier Gaudoin (LJK) is the responsible for the administrative aspects of this course.

Teaching assistant, *ENSE3 (Grenoble INP)*, Course on “Signal processing” (TP, BE, and TD) to students of the 2nd year of the engineering program, 56 hours in total between 2017 and 2019. Professor responsible for the course: Pierre Granjon (GIPSA-lab).

Teaching assistant, *PHELMA (Grenoble INP)*, Course on “Numerical optimization” (TP and BE) to students of the 2nd year of the engineering program, 20 hours in total from 2017 until 2019. Professor responsible for the course: Bertrand Rivet (GIPSA-lab).

Teaching assistant, *Escola Politécnica da Universidade de São Paulo*, Course on “Stochastic processes” to students of the 3rd year of the engineering program, 40 hours in 2013. Professor responsible for the course: Luiz A Baccalá (Universidade de São Paulo).