

Pedro Abdalla Teixeira

Curriculum Vitae

Contact Information

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Web Page

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Citizenship

Brazilian

EDUCATION

PhD Candidate in Mathematics

[October 2020-Present]

ETH Zürich

Advisor: Afonso S. Bandeira

M.S in Mathematics

[2018-2020]

Pontifical University Catholic of Rio de Janeiro

Dissertation: Non-asymptotic random matrix theory and the small ball method

Advisor: Carlos Tomei

B.S in Mathematics & Electrical Engineering

[2013-2017]

Pontifical University Catholic of Rio de Janeiro

One semester exchange program at University of California Santa Barbara

[2017]

TEACHING

Mathematics of Signals Network and Learning (Undergraduate) [Spring 2023]

ETH Zürich

Course Organiser

Mathematics of Data Science

[Fall 2021,2022]

ETH Zürich

Course Organiser

Mathematics of Machine Learning (Undergraduate)

[Spring 2021,2022]

ETH Zürich

Course Organiser

Linear Algebra II

[Second Semester 2017]

Puc-Rio

Teaching Assistant

Calculus I (Special Class)

[First Semester 2015]

Puc-Rio

Teaching Assistant

Linear Algebra I

[Second Semester 2013]

PUC-Rio

Teaching Assistant

LANGUAGE SKILLS

Portuguese

[Native]

English

[Fluent]

Spanish

[Basic]

German

[Basic]

Honors & Awards

Bolsa Nota 10-FAPERJ (Highest prize for master students)

[2019]

Dean's List University of California Santa Barbara

[2017]

Full Scholarship PUC-Rio Academic Excellence

[2015]

Publication List

P. Abdalla. Covariance Estimation under Missing Observations and $L_4 - L_2$ Moment Equivalence. Submitted for publication, Preprint available online.

P. Abdalla, A. S. Bandeira, M. Kassabov, V. Souza, S. H. Strogatz, A. Townsend. Expander graphs are globally synchronising. Submitted for publication, Preprint available online. A piece of Quanta Magazine available online "New Proof Shows That 'Expander' Graphs Synchronize".

P. Abdalla, N. Zhivotovskiy. Covariance Estimation: Optimal Dimension-free Guarantees for Adversarial Corruption and Heavy Tails. To appear in Journal of the European Mathematical Society, 2023.

P. Abdalla, A. S. Bandeira, C. Invernizzi. Guarantees for Spontaneous Synchronization on Random Geometric Graphs. Submitted for publication, Preprint available online.

P. Abdalla. Robust Sparse Recovery with sparse Bernoulli Matrices via Expanders. Submitted for publication, Preprint available online.

P. Abdalla, C. Kümmerle. "Dictionary-Sparse Recovery From Heavy-Tailed Measurements" . Information and Inference. A Journal of the IMA. Vol 11. No 4. Pages 1501–1526. 2022. Oxford University Press.

P. Abdalla, A. S. Bandeira. "Community Detection with a Subsampled Semidefinite Program". Sampling Theory, Signal Processing, and Data Analysis. Vol 20. No 1. Pages 6. 2022. Springer

A. Reisizadeh, P. Abdalla, R. Pedarsani. "Sub-linear Time Stochastic Threshold Group Testing". IEEE Information Theory Workshop (ITW). Pages 1–5. 2018. IEEE

P. Abdalla, A. Reisizadeh, R. Pedarsani. "Multilevel Group Testing via Sparse-Graph Codes". 51st Asilomar Conference on Signals, Systems, and Computers. Pages 895–899. 2017. IEEE.

REVIEWER

Journal: IEEE Transactions on Network and Science, Electronic Journal of Statistics.