



# FRANCISCO G. MAION

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## EDUCATION

<b>PhD</b>   <i>Computational Cosmology</i> Donostia International Physics Center <b>Supervisor</b> - Dr. Raúl E. Angulo	Sep. 2021 (Projected) – Sep. 2025 (Projected) Donostia/San Sebastián, Spain
<b>Research Internship</b>   <i>Computational Cosmology</i> Donostia International Physics Center <b>Supervisor</b> - Dr. Raúl E. Angulo	Feb. 2021 – Apr. 2021 Donostia/San Sebastián, Spain
<b>Master of Science</b>   <i>Cosmology</i> Universidade de São Paulo <b>Supervisor</b> - Prof. Dr. L. Raul W. Abramo	Apr. 2019 – May 2021 (Projected) São Paulo, Brazil

**Abstract:** The main objective of this project has been to perform an analysis of real data from the VIPERS survey using multi-tracer analysis methods, in order to assess whether they are capable of improving the constraints on the cosmological parameters. This involved the development of a power spectrum estimation pipeline, and careful forward modeling of the systematic effects into the theoretical models, to ensure we would obtain unbiased values for the cosmological parameters.

<b>Bachelor of Science</b>   <i>Physics</i> Universidade de São Paulo	Mar. 2015 – Jan 2019 São Paulo, Brazil
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## SUMMER COURSES

<b>General Relativity</b>   <i>Graduate Level</i> IFT - Unesp / ICTP - SAIFR	Jan. 2019 – Feb. 2019 São Paulo, Brasil
<b>Functional Analysis</b>   <i>Graduate Level</i> IMPA	Jan. 2018 – Feb. 2018 Rio de Janeiro, Brazil
<b>Introduction to Linear Algebra</b>   <i>Undergraduate Level</i> IMPA	Jan. 2017 – Feb. 2017 Rio de Janeiro, Brazil

## HONORS AND AWARDS

<b>Prêmio Vídeo Pós-Graduação USP</b> Prize given to best outreach video made by a graduate student in the area of Exact and Earth Sciences.	2019
<b>FAPESP M.Sc. Fellowship</b> Highly competitive grant given by state funding agency.	2019-2021
<b>FAPESP Undergraduate Fellowship</b> Highly competitive grant given by state funding agency.	2017-2018

## PUBLICATIONS - UPDATED 06/21

## TEACHING EXPERIENCE

<b>Physics I (Teaching Assistant)</b> Universidade de São Paulo	Jan. 2019 - Jul. 2019 São Paulo, Brazil
<b>Physics I (Teaching Assistant)</b> Universidade de São Paulo	Jan. 2020 - Jul. 2020 São Paulo, Brazil

## SKILLS

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**Languages:** Portuguese (Native), English (C2)

**Programming:** Python (NumPy, SciPy, Matplotlib), C, emcee, CAMB

**Document Creation:** Profficient LaTeX user

## COMMUNITY INVOLVEMENT

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**Preparatory Course for Underprivileged Students**

Jan. 2019 – Aug. 2020

Physics teacher at a preparatory course focusing on university admission exams.

São Paulo, Brazil

## SCIENTIFIC MEETINGS ATTENDED

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**Summer Cosmology School**

Jan. 2019

University of Michigan

Online

**III Joint ICTP-Trieste/ICTP-SAIER School on Observational Cosmology**

Jun. 2020

IFT - Unesp / ICTP - SAIER / ICTP - Trieste

São Paulo, Brazil