

Luis Fernando Bernardi de Souza

Institute of Physics
University of São Paulo
São Paulo, Brazil

Phone: +55 (19) 99844 1202
Email: luis.bernardi.souza@usp.br
ORCID iD: [0000-0002-2808-7668](https://orcid.org/0000-0002-2808-7668)
Research Gate: [Luis-Souza](#)

Education

[†] *Indicates expected*

2023–2027 [†] Ph.D. Candidate, Physics, University of São Paulo
Thesis: Transport barriers for multiple mode drift wave map
Supervisor: Iberê Luiz Caldas
2021–2022 M.Sc., Physics, University of the State of São Paulo
Dissertation: Transport barriers for two-mode drift wave map
Supervisor: Ricardo Egydio de Carvalho
2016–2021 B.Sc., Physics, University of the State of São Paulo

Appointments

2024 Teaching Assistant, Physics, University of São Paulo
2022 Teaching, Computer Science, São Paulo State University - UNESP

Teaching

2022 Undergraduate, Numerical analysis 1 São Paulo State University - UNESP

Teaching Assistant

2024 Undergraduate, Physics I (Classical Mechanics) University of São Paulo
2024 Graduate, Classical Mechanics University of São Paulo

Publications

Journals

- [1] **Bernardi de Souza, L F**, Egydio de Carvalho, R, Caldas, I L. Transport barriers for two modes drift wave map. *Physics Letters A* **444**, 128237 (2022). DOI: [10.1016/S037596012200319X](https://doi.org/10.1016/S037596012200319X)

Conferences

- [1] **Bernardi de Souza, L F**, et al. (2023). Transport barriers for two-mode drift wave map. XLIII Dynamics Days Europe (p. 271). Naples, Italy. [link](#)
- [2] **Bernardi de Souza, L F**, et al. (2024). Shearless barrier in the multiple spatial modes drift wave model. 14th IAEA Technical Meeting on Control, Data Acquisition and Remote Participation for Fusion Research (14th IAEA CODAC TM 2024). São Paulo, Brazil.

Contributed Presentations

- [1] **Bernardi de Souza, L F**, Egydio de Carvalho, R (2022). Transport barriers for two modes drift wave map (oral presentation), Workshop on Applied Dynamical Systems, São Paulo, Brazil, August 2022.
- [2] **Bernardi de Souza, L F**, Egydio de Carvalho, R (2022) Shearless barrier for two-mode drift wave map (oral presentation). Workshop on Nonlinear Dynamics, Rio Claro, Brazil 2022.

Research Areas

- Analytical and numerical analysis of low-dimensional dynamical systems
- Hamiltonian dynamics
- Plasma Physics
- Applications of dynamical systems to fusion plasmas

Research Skills

- Abilities in low-level/high-performance programming languages (FORTRAN)

References

Iberê L. Caldas, Ph.D.	Ricardo E. Carvalho, Ph.D.	Marcia C. A. Fantini, Ph.D.
1371 Matão Street	24A Avenue, 1515	1371 Matão Street
São Paulo SP 05508-090	Rio Claro SP 13506-900	São Paulo SP 05508-090
ibere@if.usp.br	ricardo.egydio@unesp.br	dalpian@if.usp.br