Rodrigo Schmidt Pitombo

Curriculum Vitae

Rua Dr. Bento Teobaldo Ferraz, 271 - Bloco II
Barra-Funda - São Paulo/SP
Brazil
rs.pitombo@unesp.br
rodphysics.github.io/
RodPhysics
0000-0001-7573-1551
4CorU9UAAAAJ

Personal Information

Birth date **April 25 1999**

Interests **String Theory, AdS/CFT, Supersymmetry, Conformal Field Theories**

Education

2021–present **PhD. in Theoretical Physics**, *Institute for Theoretical Physics - Unesp*, São Paulo
Supervisor: Nathan Berkovits

2017–2021 **BsC. in Physics**, *Federal University of Rio de Janeiro*, Rio de Janeiro

Publications and preprints

[1] N. Berkovits and R.S. Pitombo, *4D Chern-Simons and the pure spinor $AdS_5 \times S^5$ superstring*, *Phys. Rev. D* **109** (2024) 106015.

[2] R.S. Pitombo, M. Vasconcellos, P.P. Abrantes, R. de Melo e Souza, G.M. Penello and C. Farina, *Periodic strings: A mechanical analogy to photonic and phononic crystals*, *American Journal of Physics* **92** (2024) 108.

[3] R.S. Pitombo, M. Vasconcellos, C. Farina and R. de Melo e Souza, *Source method for the evaluation of multipole fields*, *European Journal of Physics* **42** (2021) 025202.

Research Experience

2021–present **PhD. Research Project**, *Supervisor: Prof. Nathan Berkovits*, Institute for Theoretical Physics - Unesp, Financial support: FAPESP Doctoral (Direct) Scholarship
Investigating aspects of Superstring Theory in $AdS_5 \times S^5$
Led to the paper [1].

2019–2020 **Undergraduate Research Project**, *Supervisor: Prof. Carlos Farina*, Federal University of Rio de Janeiro, Financial Support: FAPERJ Scientific Initiation Scholarship
Studied advanced topics in classical mechanics and electrodynamics.
Led to the papers [2] and [3].

2017–2018 **Undergraduate Research Project**, *Supervisor: Prof. João R. T. de Mello Neto*, Federal University of Rio de Janeiro, Financial Support: PIBIC-UFRJ Scientific Initiation Scholarship
Study on stochastic processes and diffusion with the aid of simulations.

Teaching Experience

2024 **Tutor in the IV ICTP-SAIFR Summer School for Young Physicists**, *Project: Periodic strings, a mechanical analogy to photonic crystals.*
1-week event in which graduate students supervise high-school students in projects on advanced topics.

2020 **Teaching Assistant on Classical Mechanics II**, *Federal University of Rio de Janeiro*, Prof. Carlos Farina

2019 **Teaching Assistant on Classical Mechanics I**, *Federal University of Rio de Janeiro*, Prof. Carlos Farina

2019 **Monitor at the Didactic Laboratory of the Physics Institute (LADIF)**, *Federal University of Rio de Janeiro*
Laboratory with guided visits to high school students.

2018 **Teaching Assistant on Topics of General Physics II**, *Federal University of Rio de Janeiro*, Prof. Carlos Zarro
Discipline in which first-year students solve basic classical mechanics problems supervised by the teaching assistants.

Scholarships and Awards

2024 **Financial support for tutors of the IV ICTP-SAIFR Summer School for Young Physicists**

2022 **Doctorate (Direct) Scholarship: Fundação de Amparo à Pesquisa do Estado de São Paulo**, *Supervisor: Prof. Nathan Berkovits*, Grant Number: 22/05236-1

2021 **Master's Scholarship: Fundação de Amparo à Pesquisa do Estado de São Paulo**, *Supervisor: Prof. Nathan Berkovits*, Grant Number: 20/14489-5
Interrupted due to start of direct Ph.D.

2021 **Award for best work at presentation session at the XLII Journey for Scientific Initiation of the Federal University of Rio de Janeiro**, *Oral presentation*, Work: Periodic strings, a mechanical analogy for photonic crystals.

2020 **Scientific Initiation Scholarship: Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro**, *Supervisor: Prof. Carlos Farina*

2018 **Scientific Initiation Scholarship: PIBIC-UFRJ**, *Supervisor: Prof. João R. T. de Mello Neto*

Conferences and Schools

2024 **Integrability in Gauge and String Theory**, *ICTP-SAIFR*, Gong show: 4D Chern-Simons and the pure spinor $AdS_5 \times S^5$ superstring

2024 **Bootstrap meets integrability**, *ICTP-SAIFR*

2024 **Strings**, *CERN*, Poster: 4D Chern-Simons and the pure spinor $AdS_5 \times S^5$ superstring

2023 **School on Modern Amplitude Methods for Gauge and Gravity Theories**, *ICTP-SAIFR*

2023 **Bootstrap 2023**, *ICTP-SAIFR*

2023 **Holography@25 Workshop**, *ICTP-SAIFR*

2023 **Holography@25 School**, *ICTP-SAIFR*

2022 **Spring School on Superstring Theory and Related Topics**, *ICTP-Trieste (virtual attendance)*

2021 **Strings**, *ICTP-SAIFR*

Languages

Portuguese	Native	
English	Fluent	*Cambridge FCE, grade A (C1 level)*
German	Intermediate	*B1 level*
Spanish	Basic	