# Tadeu Tassis

#### PERSONAL INFORMATION

Citizenship: Brazilian

Webpage: tadeutassis.github.io
Contact: tadeutassis@gmail.com

#### EDUCATION

#### PhD in Physics, Federal University of ABC (UFABC), Brazil

2019-Present

Thesis: Trapped ions beyond low intensity regimes

Supervisor: Prof. Fernando L. Semião

#### MSc in Physics, Federal University of Espírito Santo (UFES), Brazil

2017-2019

Thesis: Topological solitons in scalar field theories in (1+1)-dimensions

Supervisor: Prof. Gabriel Luchini

# BSc in Physics, UFES, Brazil

2013-2017

Thesis: The Fermi-Pasta-Ulam-Tsingou problem (in Portuguese)

Supervisor: Prof. Gabriel Luchini

# PUBLICATION LIST \_\_\_\_\_

# Trapped ions beyond carrier and sideband interactions

T. Tassis and F. L. Semião

Physical Review A 107, 042605 (2023)

#### Collective coordinates for the hybrid model

C. F. S. Pereira, E. S. Costa Filho, and T. Tassis

International Journal of Modern Physics A 38, 2350006 (2023)

# Some novel considerations about the collective coordinates approximation for the scattering of $\phi^4$ kinks

C. F. S. Pereira, G. Luchini, T. Tassis, and C. P. Constantinidis

Journal of Physics A: Mathematical and Theoretical 54, 075701 (2021)

## BPS states for scalar field theories based on g<sub>2</sub> and su(4) algebras

G. Luchini and T. Tassis

Journal of High Energy Physics 2020, 11 (2020)

#### FELLOWSHIPS

2021-Present: PhD Scholarship from CAPES

2019-2021: PhD Scholarship from UFABC 2017-2019: MSc Scholarship from CAPES

2016-2016: Undergrad Research Scholarship from UFES 2015-2016: Undergrad Research Scholarship from UFES

#### **EVENTS**

#### VIII Paraty Quantum Information Workshop, Brazil (2023)

Poster: Trapped ions beyond carrier and sideband interations

XLI Paulo Leal Ferreira Physics Conference, IFT-Unesp, Brazil (2018)

Poster: Scattering of an electron by a Dirac monopole

II School on Theoretical High Energy Physics, IFSC-USP, Brazil (2018)

School on Theoretical High Energy Physics, IFSC-USP, Brazil (2016)

Short Course on: Solitons in Classical Field Theories, IFSC-USP, Brazil (2016)

XXVI Winter Physics School, UFMG, Brazil (2015)

# ACTIVITIES \_\_\_\_\_

#### Teaching assistant

Classical mechanics II, UFABC, Brazil (2022)

Lecturer: Prof. Fernando L. Semião

Thermal phenomena, UFABC, Brazil (2021)

Lecturer: Prof. Roberto M. Serra

#### **Examining commitees**

BSc thesis defence of João Vitor Bastos Del Piero, UFES, Brazil (2019)

#### SKILLS

## Languages

Portuguese, native English, advanced **Spanish**, basic

## **Programming Languages**

Python, experience with NumPy, SciPy, Matplotlib, and QuTiP Julia, experience with QuantumOptics.jl

C/C++, experience implementing basic numerical methods (e.g., RK4)

Software

Linux

**ŁTFX**