

Research Interests

- Quantum field theory in curved spaces
- Quantum gravity
- Cosmology
- Analogue models
- Quantum optics
- Boundary field theory

Personal Data

Surname: Holanda Ribeiro

Name: Caio Cesar

Place and date of birth: Imperatriz – MA, Brazil, 25/11/1989

Nationality: Brazilian

E-mail: caiocesarribeiro@alumni.usp.br

Education

Ph.D. in Physics:

Institution: São Carlos Institute of Physics (IFSC - USP)
University of São Paulo

Thesis supervisor: Prof. Daniel Vanzella

Date of completion: 28/04/2020

M.Sc. in Physics:

Institution: Itajubá Federal University (UNIFEI)

Date of completion: 22/02/2016

B.Sc. in Physics:

Institution: Itajubá Federal University (UNIFEI)

Honor: graduated magna cum laude

Date of completion: 20/12/2013

Employment

Position: Post-Doctoral fellow, 09/08/2020

Institution: Department of Physics & Astronomy
Seoul National University

Position: Graduate fellow, 01/03/2016 - 28/02/2020

Institution: São Carlos Institute of Physics (IFSC - USP)
University of São Paulo

Position: Graduate fellow, 03/03/2014 - 22/02/2016

Institution: Itajubá Federal University (UNIFEI)

Position: Temporary faculty member, 26/03/2014 – 25/03/2015

Institution: Itajubá Federal University (UNIFEI)

Position: Undergraduate fellow, 01/08/2011 - 31/07/2013

Institution: Itajubá Federal University (UNIFEI)

Publications

1. C.C.H. Ribeiro and D.A.T. VANZELLA, Analogues of gravity-induced instabilities in anisotropic metamaterials. *Physical Review Research* **2**, 013281 (2020).
2. L.H.C. Borges, F.E. Barone, C.C.H. Ribeiro, H.L. Oliveira, R.L. Fernandez, and F.A. Barone, New point-like sources and a conducting surface in Maxwell-Chern-Simons electrodynamics. *European Physical Journal C. Particles and fields* **80**, 238 (2020).
3. G.H.S. Camargo, V.A. De Lorenci, C.C.H. Ribeiro, and F.F. Rodrigues, Vacuum induced dispersions on the motion of test particles in $D + 1$ dimensions, *Physical Review D* **100**, 065014 (2019).
4. V.A. De Lorenci and C.C.H. Ribeiro, Remarks on the influence of quantum vacuum fluctuations over a charged test particle near a conducting wall, *JHEP* **04** 072 (2019).
5. G.H.S. Camargo, V.A. De Lorenci, C.C.H. Ribeiro, F.F. Rodrigues and M.M. Silva, Vacuum fluctuations of a scalar field near a reflecting boundary and their effects on the motion of a test particle, *JHEP* **07** 173 (2018).
6. V.A. De Lorenci, C.C.H. Ribeiro and M.M. Silva, Probing quantum vacuum fluctuations over a charged particle near a reflecting wall, *Physical Review D* **94** 105017 (2016).
7. C.H.G. Bessa, V.A. De Lorenci, L.H. Ford and C.C.H. Ribeiro, Model for lightcone fluctuations due to stress tensor fluctuations, *Physical Review D* **93** 064067 (2016).

Relevant Conferences/Workshops Attendances

1. Workshop: Boundaries and Defects in Quantum Field Theory, 06/08/2019 - 09/08/2019
Institution: Perimeter Institute, Waterloo, Canada
Poster presentation: Effective Event Horizons: Awakening Vacuum and Vacuum-Induced Boundary Motion.
2. Conference: GR22/Amaldi13, 07/07/2019 - 12/07/2019, Valencia, Spain
Parallel talk: An Optical Analogue of Gravity-Induced Instabilities
Recipient of the conference grant: ISGRG Rosenblum Travel Award

Research Visits

1. Institution: Tufts University, Medford (USA)
Department: Physics and Astronomy
Host: Prof. Lawrence H. Ford
Dates: 25/09/2018 – 05/10/2018

Language Skills

- Portuguese: native speaker
- English: proficiency
- Spanish: basic communication skills

Computer Languages

- C/C++
- Python3