# Marcos Carvalho Brum de Oliveira

# Scientific Production

# **Publications**

2020 Braz. J. of Physics (2021) 51:244-262. DOI:10.1007/s13538-020-00808-0, arXiv:1909.06232, J. C. A. Barata and M. Brum and V. Chabu and R. Correa da Silva

Pure and Mixed States

- 2019 Symmetry, Integrability and Geometry: Methods and Applications 15 (2019), 060, arXiv:1708.00538, João C. A. Barata and Marcos Brum Wavepackets on de Sitter spacetime
- 2015 Class. Quantum Grav 32 (2015) 015013, arXiv:1405.7916, Marcos Brum and Sergio E. Jorás
  Hadamard state in Schwarzschild-de Sitter spacetime
- 2014 Class. Quantum Grav 31 (2014) 025024, arXiv:1307.0482, Marcos Brum and Klaus Fredenhagen

'Vacuum-like' Hadamard states for quantum fields on curved spacetimes

2013 Class. Quantum Grav 30 (2013) 235035, arXiv:1302.3174, Kolja Them and Marcos Brum

States of low energy in homogeneous and inhomogeneous expanding spacetimes

## **Technical Publications**

2024 Prior Art Database IPCOM000274259D, Rodrigo Alves and Vinicius Barros and Marcos Brum and Lucas Scabora AI-Powered System for Agile Project Management and Planning

### Mini-courses lectured

2016 Hadamard States in Quantum Field Theory on Curved Spacetimes, Institute of Physics, University of São Paulo
Brazil

Rua Antonio Cesarino 300, apartamento 44, Campinas, SP. ZIP code: 13015-290.

Brazil

☐ +55 (21) 987107858 • ☐ marcos.brum@gmail.com

https://github.com/MarcosBrum

2015 Introduction to Algebraic Quantum Field Theory on Curved Spacetimes,
Brazilian Center for Research in Physics, The Ministry of Science, Technology,
Innovation and Communications
Brazil

Rua Antonio Cesarino 300, apartamento 44, Campinas, SP. ZIP code: 13015-290. Brazil

☐ +55 (21) 987107858 • ☐ marcos.brum@gmail.com

• https://github.com/MarcosBrum