

Massimo Vaglio

Curriculum Vitae

Personal
information

Current
position

2019–now **PhD in Physics**, *Sapienza University of Rome*, Physics Department, Rome (IT).
Supervisors: Andrea Maselli, Paolo Pani.

Education

2015–2018 **MSc in Teoretical Physics**, *University Federico II of Naples*, Naples (IT),

Master thesis in quantum gravity with title: “On the relativistic properties of a Planck-scale polymer model of spacetime”

Supervisor: Prof. Giovanni Amelino-Camelia

2011-2015 **BSc in Physics**, *University Federico II of Naples*, Naples (IT), Dissertation of a thesis work in special and general relativity: “Relativistic corrections to planetary orbits”

Supervisor: Prof. Salvatore Capozziello

2011 **Diploma di liceo scientifico**, *Istituto Giuseppe Mazzini*,

Research associations

Member of the TEONGRAV network, *TEoria delle ONde GRAVitazionali*, (Theory of gravitational waves).

Associated to INFN, *Istituto Nazionale di Fisica Nucleare*, (Italian National Institute of Nuclear Physics).

Member of the GWVerse COST Action, *Action CA16104*, European Cooperation in Science and Technology.

Member of the Einstein Telescope (ET) Collaboration, *Sapienza Research Unit*, Fundamental Physics Division.

Member of the EuCAPT, (The European Consortium for Astroparticle Theory).

Languages

Italian Native

English Fluent

Computer skills

O.S. Windows, Linux

Language C, Python, Latex

Software Microsoft Office, Mathematica, Bilby (Bayesian Inference Library for Gravitational Wave astronomy), Origin Lab

Talks and seminars

- 07-07-2021 **Aveiro Grav@ meeting**, *Invited Talk*, Aveiro, Portugal.
- 03-09-2021 **Global meeting of the GWVerse COST action**, *Contributed Talk*, Lisbon, Portugal.
- 21-12-2021 **XIV Black Hole Workshop**, *Contributed Talk*, Aveiro, Portugal.
- 25-05-2022 **Third European Physical Society conference on gravitation**, *Contributed Talk*, Nice, France.
- 05-07-2022 **23rd International Conference on General Relativity and Gravitation**, *Contributed Talk*, Online (Beijing), China.
- 22-07-2022 **Annual Teongrav meeting**, *Contributed Talk*, Firenze, Italia.
- 29-07-2022 **XIV Lisa Symposium**, *Live Talk*, Online.

Grants

- 17-04-2021 **COST Action CA16104 Grant for Short Term Scientific Mission**, *Destination Country: Aveiro, Portugal*, Total amount: 2300 €.
- 22-10-2021 **Project funded within the “Bando di avvio alla ricerca 2021”**, *Istitution: Sapienza University of Rome*, Total amount: 1000 €.

Teaching experience

- 2020 **Teaching assistant**, *Sapienza University, Rome*.
Tutoring activities for second year bachelor students of the Computational Physics Lab course for a total amount of 40 hours.
- 2017 **Scientific divulgation**, *Federico II University, Naples*.
I've been involved in many activities with the student's association PONYS (Physics & Optics Naples Young Students) during the year.
- 2015 **Private Teacher**, *Naples*.
Private lessons of physics and mathematics for high school students and of mathematical analysis, mechanics and electromagnetism for bachelor students. Total amount of hours over 100.

Other activities

Volunteer and educator From 2011 to 2017 I've been in CNGEI, an Italian association that is part of the WOSM (World Organization of the Scout Movement) which aims to support young people in their physical, mental and spiritual development. On September 2017, the association assigned me a praise for commitment, competence and service-minded attitude.

Publications

2020 **Gravitational-wave detectors as particle-physics laboratories: Constraining scalar interactions with a coherent inspiral model of boson-star binaries**, *Costantino Pacilio, Massimo Vaglio, Andrea Maselli, Paolo Pani*, Phys. Rev. D 102, 083002 (2020).

2022 **Multipolar structure of rotating boson stars**, *Costantino Pacilio, Massimo Vaglio, Andrea Maselli, Paolo Pani*, Phys. Rev. D 105, 124020 (2022).