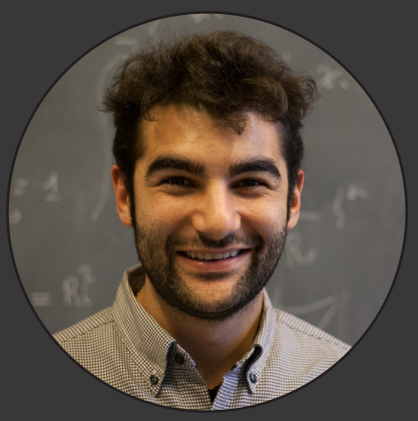


MARCO SANCHIONI

THEORETICAL PHYSICIST

ABOUT ME

AWARDS

OCCHIALINI SCOHOLARISHIP 2010

Scholarship provided by the Occhialini Fundation to excellent high school students.

SISSA-UniTN joint program (2011 - 2013)

Double degree joint program between the university of Trento and the Institute of Advanced Studied SISSA of Trieste.

EDUCATION

2008 - 2011
University of Bologna

BACHELORS OF PHYSICS

Grade: 110 cum laude
Bachelor Thesis: Superradiance effect in Kerr black holes
Thesis Advisor: Roberto Casadio

2011 - 2013
University of Trento

MASTER DEGREE IN PHYSICS

Grade: 110 cum laude
Master Thesis: Trace anomaly in chiral conformal field theories
Master advisor: Loriano Bonora
Master co-advisor: Sergio Zerbini

2011 - 2013
SISSA (Trieste)

DIPLOMA IN THEORETICAL PHYSICS

Diploma of advanced studies in theoretical particle physics and string theory

2013 - 2018
Niels Bohr Institute
University of Copenhagen

PHD IN THEORETICAL PHYSICS

Project: New horizons in particle and condensed matter physics from black holes
PhD Thesis: Blackfolds and non-AdS holography
PhD advisor: Niels Obers
PhD co-advisor: Jacome Armas

MAJOR PUBBLICATIONS

30 Dec 2015
Journal of High Energy Physics

GRAVITATIONAL TENSION, SPACETIME PRESSURE AND BLACK HOLE VOLUME

Jay Armas, Niels A. Obers, Marco Sanchioni
Published in JHEP 1609 (2016) 124
DOI: 10.1007/JHEP09(2016)124

30 June 2016
Journal of High Energy Physics

LIFSHITZ HYDRODYNAMICS FROM LIFSHITZ BLACK BRANES WITH LINEAR MOMENTUM

Jelle Hartong, Niels A. Obers, Marco Sanchioni
Published in JHEP 1610 (2016) 120
DOI: 10.1007/JHEP10(2016)120

TALKS

13 March 2016

Jacobs University
of Bremen

10° NORDIC STRING MEETING

From Schroedinger to Lifshitz Hydrodynamics by particle number breaking

TEACHING

2014 - 2015

University
of Copenhagen

GENERAL RELATIVITY

30 hours of exercises and seminars on Einstein theory of general relativity for students of the bachelor degree in physics

2015 - 2016

University
of Copenhagen

GENERAL RELATIVITY

30 hours of exercises and seminars on Einstein theory of general relativity for students of the bachelor degree in physics

2015 - 2016

University
of Copenhagen

SUPERSYMMETRIC FIELD THEORIES

30 hours of exercises and seminars on supersymmetry and supersymmetric field theories for students of the master degree in theoretical physics

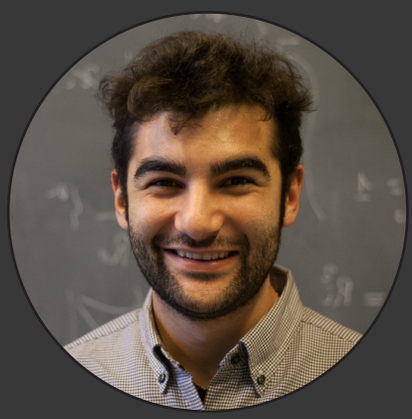
RESEARCH INTEREST

- BLACK HOLES PHYSICS
  Black holes are the most interesting objects of general relativity. I'm interested in understanding their microstate structures and their connection to quantum physics.

- HOLOGRAPHIC CORRESPONDENCE
  It has been one of the greatest revolotion in modern high energy physics, and it changed the destiny of string theory by giving us the possibility of applying string theory mathematics to ordinary physics (condensed matter, quantum information, ...). My interested in the correspondence is twofold:
  - fundational aspects: is holography a fundamental feature of the nature?
  - developing non relativistic holography

- PHILOSOPHY OF PHYSICS
  I'm interested in exchanges between philosophy and physics in answering deep fundamental questions. In particular, the holographic principle can open up some relevant philosophical questions:
  - ontology of a quantum space-time
  - is gravity (and therefore space-time) emergent?

- SCIENCE AND FAITH DIALOGUE
  I'm interested in an organic vision on the world where teology and natural sciences can contribute in a Trinitarian relationship (unity in diversity), developing a Trinitarian ontology. Scientific theories can help to reformulate teological doctrines. Philosophy, in particular philosophy of science, is the mediator between empirical sciences and theology.



LANGUAGES

ITALIAN	
ENGLISH	C1
ROMANIAN	B1

ADOBE SUITE

- ILLUSTRATOR
- INDESIGN
- PHOTOSHOP
- PREMIERE

JOBS

Since 2015 I've been managing, together with my wife Elena, a medical center with more than 60 doctors. It is called Centro Clinico Fogliense and it is situated in Tavullia (via Pian Mauro 10/c). In particular I develop business analysis of the center, helping in taking strategical choices.

Since 2019 I also work for SUPERPROF. I teach quantum mechanics, particle physics, analysis and also physics and mathematics for high school students.