



Filippo Fecit

Born on March 19th, 1998
Genova – ITALY

+39 3271228093

filippo.fecit2@unibo.it

Linkedin Profile

Personal Webpage

Scientific Interests

- Theoretical Physics
- Mathematical Physics
- Gravitational Physics

Languages

Italian • Mother tongue
English • Proficient
AcES Certificate (2024)
German • Conversational
Goethe-Zertifikat B1 (2016)

Tools

LaTeX • • • • •
Mathematica • • • • •
Python • • • • •
C++ • • • • •
Matlab • • • • •

Education

Nov. 2022 – In progress. PhD in Physics XXXVIII Cycle

University of Bologna - Alma Mater Studiorum

Supervisor: Prof. Fiorenzo Bastianelli

Co-supervisor: Dr. Sebastián Alberto Franchino-Viñas

Sep. 2020 – Jun. 2022. Master Degree in Physics

University of Genova

Mark: 110/110 cum laude

Thesis Title: Physical Consequences of a Non-Flat Spacetime
for Topological States of Matter

Supervisor: Prof. Nicola Maggiore

Sep. 2021 – Feb. 2022. Erasmus Fellowship

Technische Universitat Wien

Sep. 2017 – Jul. 2020. Bachelor Degree in Physics

University of Genova · Mark: 109 /110

Talks and Seminars

Talk: *Massive Gravity in the Worldline Formalism.*

Invited speaker to *TFI 2024: Theories of the Fundamental Interactions*, September 23-25, 2024 - Naples, Italy.

Seminar: *Physical consequences of a non-flat spacetime for topological states of matter.*

February 14, 2022 - TU Wien, Vienna, Austria.

Seminar: *Massive Gravity in the Worldline Formalism.*




March 18, 2024 - Worldline Meetings (online).

June 12, 2024 - HU Berlin, Berlin, Germany.

Seminar: *A worldline approach to resummations and (assisted) pair production.*

February 11, 2025 - Worldline Meetings (online).

Publications

- *Topological BF description of 2D accelerated chiral edge modes*
Authors: E. Bertolini, F. Fecit, N. Maggiore
Symmetry **14** (2022) no.4, 675, doi: 10.3390/sym14040675 [[arXiv:2203.13520 \[hep-th\]](#)]. 
- *Six-dimensional one-loop divergences in quantum gravity from the $\mathcal{N} = 4$ spinning particle*
Authors: F. Bastianelli, F. Comberiati, F. Fecit, F. Ori
JHEP **10** (2023) 152, doi:10.1007/JHEP10(2023)152 [[arXiv:2307.09353 \[hep-th\]](#)]. 
- *Massive gravity from a first-quantized perspective*
Author: F. Fecit
Eur. Phys. J. C **84** (2024) 445 [[arXiv:2312.15428 \[hep-th\]](#)].
doi:10.1140/epjc/s10052-024-12799-2 
- *Worldline path integral for the massive graviton*
Author: F. Fecit
Eur. Phys. J. C **84** (2024) 339 [[arXiv:2402.13766 \[hep-th\]](#)].
doi:10.1140/epjc/s10052-024-12707-8 
- *Resummed effective actions and heat kernels: the Worldline approach and Yukawa assisted pair creation*
Authors: F. Fecit, S. A. Franchino-Viñas, F. D. Mazzitelli
[[arXiv:2501.17094 \[hep-th\]](#)].
- *The Fierz–Pauli theory on curved spacetime at one-loop and its counterterms*
Authors: L. Farolfi, F. Fecit
Eur. Phys. J. C **85** (2025) 356 [[arXiv:2503.11304 \[hep-th\]](#)].
doi:10.1140/epjc/s10052-025-14083-3 

Teaching Experience

Sep. 2023 – In progress. Teaching Assistantship

University of Bologna

Aimed at first-year physics students. Course: Calculus.

Aimed at first-year material science students. Course: Mathematics.

Oct. 2021 – Jun. 2022. Teaching Assistantship

University of Genova

Aimed at first-year engineering students, in English. Subjects: Mathematics and Physics.


Organisational and Communication skills

Nov. 2022 – In progress. PhD Student Representative


Sep. 2018 – Jul. 2022. Student Representative

Work experience

Oct. 2019 – Nov. 2024. Scientific Animator

Festival della Scienza  I have been a science animator for the *Festival della Scienza* in the editions of 2019, 2020, 2022, 2023 and 2024. I have been assigned to both physics laboratories and astrophysics and astrophotography exhibitions. The focus was to disseminate scientific concepts in an accessible way to the general public, with special attention to elementary, middle and high school students.

Feb. 2018 – Mar. 2023. Community manager

Tatabox Soc. Coop. Sociale  I have been a member and part-time employee of Tatabox Cooperativa Sociale. My responsibilities included managing the reception of customers, presence in the spaces, the cash desk and the sales of the shop. I dealt with customer relations, which are mainly university students, and engaged them by proposing content and activities through our communication channels.