

Research Interests

○ **AOS**: Foundations of Physics, Theories of Gravity, Philosophy of Space-Time

○ **AOC**: Theoretical Physics, Metaphysics of Physics, Philosophy of Physics

Current Position

2025 – present **PhD candidate in Philosophy**, Department of Philosophy, University of Geneva, Geneva (SWI)

2025 – present **PhD candidate in Physics**, Department of Mathematics, Computer Science, and Physics, University of Udine, Udine (ITA)

2025 – present **INFN associate**, National Institute of Nuclear Physics, Section of Trieste (ITA)

Education

2025 – present **PhD in Philosophy (double degree)**, University of Geneva, Geneva (SWI)

Thesis: “Foundations of torsion theories of gravity”

Supervisor: C. Wüthrich (University of Geneva)

2025 – present **PhD in Physics (double degree)**, University of Udine, Udine (ITA)

Thesis: “Foundations of torsion theories of gravity”

Supervisors: S. Ansoldi (University of Udine) & D. Pranzetti (University of Udine)

2023 – 2025 **M.A. in Philosophy**, University of Italian Switzerland, Lugano (SWI)

Thesis: “Coordinates, symmetries and space-times”

Supervisor: T. Maudlin (New York University)

Final Mark: 9.6/10 *summa cum laude*

2019 – 2022 **M.Sc. in Physics**, University of Trieste, Trieste (ITA)

Thesis: “Emergent gravity: a paradigm”

Supervisors: S. Ansoldi (University of Udine) & S. Sonego (University of Udine)

Final Mark: 110/110 *cum laude*

2016 – 2019 **B.Sc. in Physics**, University of Trieste, Trieste (ITA)

Thesis: “Mass determination in galaxy clusters”

Supervisors: S. Borgani (University of Trieste) & E. Rasia (University of Trieste)

Final Mark: 109/110

Publications (* indicates contribution already agreed with the journal)

In prep “From the Quantum of Light to the Photon: The Evolution of an Open Concept”, with F. Parmigiani

In prep “Assessing Supersubstantivalism in Contemporary Cosmology: the Case of Superfluid Dark Matter”, with L. Gasparinetti, *CUP**

In prep “On the viability of primitive ontology for cosmological theories”, with C. Mariani, *CUP**

Und rev “The hole argument: indeterminism and the ontological status of space-time”, *APhEx**

- 2025 “On the viability of higher-order theories”, with S. Ansoldi, *Transactions A of the Royal Philosophical Society*
- 2025 “Ontologies for Quantum Field Theory”, with L. Gasparinetti, *Philosophy Compass*
- 2025 “Particelle in fisica moderna”, (in Italian: “Particles in Modern Physics”), with L. Gasparinetti, *APhEx*

Scholarships, Grants and Awards

- 2025 –2028 **PhD Scholarship**, University of Udine (ITA)
Scholarship value: EUR 48.729
- 2025 **Conference Grant**, for presenting at the Annual Conference of the Philosophy of Physics Group of the German Physical Society, Bonn (GER)
Grant value: EUR 400
- 2023 **Scholarship "Contributo Sociale" (first semester)**, *University of Italian Switzerland (SWI)*
Scholarship value: CHF 1500
- 2022 **Award for Academic merits (Master)**, *Banca 360 FVG (ITA)*
Award value: EUR 900
- 2022 **Award for Academic merits (Master)**, *Banca di Credito Cooperativo del Friuli (ITA)*
Award value: EUR 300
- 2020 **Award for Academic merits (Bachelor)**, *Banca di Credito Cooperativo del Friuli (ITA)*
Award value: EUR 300

Guest Lectures

- 2025 **Ontologies for Quantum Field Theory**, *Course of History and Philosophy of QFT*, Fall semester, M.A. in Philosophy and M.Sc. in Theoretical Physics, Utrecht University (NL)

Administrative Jobs

- Oct-Mar 24/25 **Student assistant**, Institute of Philosophy, Lugano (SWI)
Managing accommodation and travel reimbursement of guest professors for the M.A./B.A. courses in Philosophy, and managing social media for the Institute

Talks (* indicates refereed presentation/ † indicates online presentation)

- 2026
- (3) *Foundations of gravitational theories with torsion*, Seminar of the Geneva Symmetry Group, University of Geneva (SWI)
 - (2) *On the viability of primitive ontology for cosmological theories*, Online Workshop: Philosophical and Technological Reflections on Contemporary Cosmology, Universidad Nacional Autónoma de México (MEX)*†
- 2025
- (1) *Unveiling Biases in Physics*, with L. Gasparinetti, Annual conference of the Philosophy of Physics Group of the German Physical Society, University of Bonn (GER)*

Professional Developments – Summer Schools

- 2025 **The Aim and Structure of a Cosmological Theory**, organized by the University of Italian Switzerland (SWI), with C. Smeenk and J.O Weatherall

Languages

- Italian: Native ◦ English: Advanced ◦ Spanish: Beginner

References (upon request)