THOMAS ROBIGLIO

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EDUCATION

Central European University *September 2023 - Now*
PhD in Network Science
Thesis: *"Internal migrations in Austria: modeling and inference of temporal graphs"*
Supervisors: Prof. T. P. Peixoto, Prof. M. Karsai

PoliTO, SISSA, ICPT, UdP, Paris-Saclay, Sorbonne *September 2021 - July 2023*
Master of Science program in Physics of Complex Systems *110/110 Cum Laude*
Thesis: *"Higher-order structures in face-to-face interaction networks"*
Supervisors: Prof. A. Barrat, Prof. M. Génois, Prof. L. Dall'Asta
International Track *Graduated 28 July 2023*

Università degli Studi di Torino *September 2018 - July 2021*
Bachelor degree in Physical Science and Technology *107/110*
Thesis: *"Interacting contagion models on simplicial complexes"*
Supervisors: Prof. M. Osella, Dr. G. Petri
Department of Physics *Graduated 20 July 2021*

EXPERIENCE

Centre de Physique Théorique, Marseille March 2023 - July 2023
Internship student

Worked under the supervision of Prof. Alain Barrat and Prof. Mathieu Génois on the statistical analysis and mathematical modeling of face-to-face interactions in human gatherings.

CENTAI Institute February 2023 - September 2023
Visiting Student

Worked under the supervision of Prof. Giovanni Petri on the relation between mechanism and behavior in complex systems with higher-order interactions [2].

ISI foundation April 2021 - July 2021
Student

Assisted senior research scientist Dr. Giovanni Petri in the study of high-order interactions and spreading phenomena on simplicial complexes. The results of this work are the focus of my undergraduate thesis and are contained in [1].

PARTICIPATIONS IN SCHOOLS AND CONFERENCES

* International School and Conference on Network Science - Vienna (Austria), 10/07/2023 - 14/07/2023
* Spring College on the Physics of Complex Systems, ICTP - Trieste (Italy), 20/02/2023 - 17/03/2023
* Conference on Complex Systems, Palma de Mallorca (Spain), 17-21/10/2022

SOFTWARE

* Comple**X** **G**roup **I**nteractions (`XGI`): a Python package for higher-order networks.

* `HOI`: a Python package for higher-order information theory, optimized using JAX.

TECHNICAL STRENGTHS

* Python, Julia, `C++`, ROOT, Wolfram Mathematica
* MS Office Package, LaTeX
* **Languages**: French, Italian (Native) English (Proficient).

INTERESTS

Italian politics, novels, podcasts. Sports junkie: football (Torino FC), cycling and mountaineering.

PUBLICATIONS

[1] Maxime Lucas et al. "Simplicially driven simple contagion". In: *Phys. Rev. Res.* 5 (1 Mar. 2023), p. 013201. DOI: 10.1103/PhysRevResearch.5.013201. URL: https://link.aps.org/doi/10.1103/PhysRevResearch.5.013201.

[2] Thomas Robiglio et al. *Synergistic signatures of group mechanisms in higher-order systems*. 2024. arXiv: 2401.11588 [physics.soc-ph]. URL: https://arxiv.org/abs/2401.11588.