THIBAUT ARNOULX DE PIREY

PERSONAL INFORMATION

Date of birth: 24/04/1996
Email: t.depirey@campus.technion.ac.il
Current institution: Technion, Faculty of physics.
City: Haifa, Israel.

ACADEMIC POSITIONS

Postdoctoral fellow ***2021 - Present***
Faculty of physics, Israel Institute of Technology. Haifa, Israel.

HIGHER EDUCATION

PhD in physics ***2018 - 2021***
***Infinite dimensional active matter and stochastic calculus for path integration*,**
under the supervision of Frédéric van Wijland.
Laboratoire Matière et Système Complexes, Université de Paris. Paris, France.

Master degree in theoretical physics, *awarded with highest honors,* ***2017***
International Center for Fundamental Physics (ICFP)
Ecole Normale Supérieure de Paris & Université Paris Saclay. Paris, France.

- **6 months research internship in the Xtreme gravity group of the the Montana State University under the supervision of Nicolás Yunes. Bozeman, Montana, USA.**
  Massive scalar-tensor gravity: cosmological evolution and Solar System consistency.
- **3 months research internship in the Quantitative Life Sciences section of the Abdus Salam International Center for Theoretical Physics under the supervision of Matteo Marsili. Trieste, Italy.**
  Statistical mechanics of coupled complex economies in the Arrow-Debreu model of general equilibrium.

Bachelor degree in physics, *awarded with highest honors,* ***2015***
Ecole Normale Supérieure de Paris. Paris, France.

GRANTS

PhD scholarship from the Fondation CFM pour la recherche. ***2018 - 2021***

RESEARCH INTERESTS

Statistical physics, nonequilibrium physics, active matter, disordered systems, theoretical ecology, random matrices, stochastic processes.

PUBLICATIONS

Submitted

1. **Thibaut Arnoulx de Pirey, Leticia F Cugliandolo, Vivien Lecomte, and Frédéric van Wijland. Discretized and covariant path integrals for stochastic processes. *arXiv preprint arXiv:2211.09470*, 2022**
2. **Thibaut Arnoulx de Pirey and Guy Bunin. Aging by near-extinctions in many-variable interacting populations. *arXiv preprint arXiv:2206.15229*, 2022**

Accepted

1. **Thibaut Arnoulx de Pirey and Frédéric van Wijland. Nonlinear analog of the may-wigner instability transition: a replica calculation. *Accepted for publication in J. Phys. A (arXiv:2207.04468)*, 2022**

Published

1. **Thibaut Arnoulx de Pirey, Alessandro Manacorda, Frédéric van Wijland, and Francesco Zamponi. Active matter in infinite dimensions: Fokker–planck equation and dynamical mean-field theory at low density. *The Journal of Chemical Physics*, 155, 2021**
2. **David Martin and Thibaut Arnoulx de Pirey. Aoup in the presence of brownian noise: a perturbative approach. *Journal of Statistical Mechanics: Theory and Experiment*, 2021, 2021**
3. **Thibaut Arnoulx de Pirey, Gustavo Lozano, and Frédéric van Wijland. Active hard spheres in infinitely many dimensions. *Phys. Rev. Lett.*, 123, 2019**
4. **Thibaut Arnoulx de Pirey and Nicolás Yunes. Cosmological evolution and solar system consistency of massive scalar-tensor gravity. *Phys. Rev. D*, 96, 2017**

TEACHING EXPERIENCE

During my PhD thesis I was hired as a teaching assistant in the "Frontières du Vivant" bachelor program of the Université Paris Cité. The topics covered were Newtonian mechanics, thermodynamics, geometrical optics and electronics. After two years, I was given the opportunity to be in charge of the Newtonian mechanics lecture course.

I have also worked as an oral examiner in mathematics and physics at first and second year level of preparatory class (equivalent to first and second year of bachelor in mathematics and physics) at Lycée Louis-le-Grand. Paris, France.