

Matthieu PIQUEREZ

Curriculum Vitae

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Postdoctoral researcher at Inria

Academic information

- Since 2022 **Postdoctoral researcher in computer science and in mathematics with Assia Mahboubi : development of a library to do formalized algebraic homology in Coq / tropical Hodge theory**, *Nantes Université*, Nantes, Laboratoire des sciences du numérique de Nantes (LS2N), Inria.
- 2017–2021 **PhD student in mathematics on tropical Hodge theory under the supervision of Omid Amini**, *École polytechnique*, Palaiseau, Centre Mathématique Laurent Schwartz.
- 2017 **Master thesis in mathematics: “A generalization of Symanzik polynomials”, under the supervision of Omid Amini**, *ENS*, Paris, Département Mathématiques et Applications.
- 2014–2018 **Student at ENS Paris.**
- 2012–2014 **Classes préparatoires MPSI/MP***, *Lycée Louis-le-Grand*, Paris.

Articles

- 2021 with Omid Amini. *Homology of tropical fans*. Preprint arXiv:2105.01504
- 2020 with Omid Amini. *Tropical Clemens-Schmid sequence and existence of tropical cycles with a given cohomology class*. Preprint arXiv:2012.13142
- 2020 with Omid Amini. *Hodge theory for tropical varieties*. Preprint arXiv:2007.07826
- 2019 *A multidimensional generalization of Symanzik polynomials*. Preprint arXiv:1901.09797

Mathematical contests

- 2017 Concours SMF-junior, ranked second.
- 2012 International mathematical olympiad, bronze medal.
- 2012 Concours Général de Mathématiques, first national prize.

Languages

- French Mother tongue.
- English Intermediate.
- Esperanto Intermediate.

Computer skills

Coq, C, OCaml, Python, Sage, \LaTeX , web development.

Experiences

- 2023– Volunteer in the Fédération française de jeux mathématiques (mathematical contests writing, etc.).
- 2022– Volunteer in MLC44 (local currency).
- 2022 Tutorial assistant in Nantes université.
- 2018–2021 Tutorial assistant in the international Bachelor of École polytechnique.
- 2019–2020 Coorganizer of the seminar Combinatoire et Interactions at the Institut Henri Poincaré.
- 2016– In charge of the website Mathmosphère: online mathematical courses for highschool students.

2016–2017 Oral examiner in classes préparatoires.

2013–2016 In charge of young boyscouts (between 8 and 12 years old).

2013–2020 Volunteer in Animath organization, which encourage young people doing mathematics.