



# Nathanaël Munier

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## University status

- 2022/- – PhD on "Blind inverse problems in microscopy"
  - CBI Toulouse (France) – supervisors: Pierre Weiss and Emmanuel Soubies
- 2021/2022 – Master 2 algorithmic, symbolic computation and numerical optimization
  - University of Limoges (France)
- 2020/2021 – Preparation of the "agrégation" in mathematics
  - [French competitive exam to teach in high schools] – ENS Rennes (France)
- 2019/2020 – Master in pure mathematics – ENS Rennes
- 2018/2019 – Bachelor's degree in mathematics – ENS Rennes
- 2016/2018 – Preparatory classes MPSI and MP\* – Lycée Kléber – Strasbourg (France)
- 2016 – Science baccalaureate with highest honour
  - High school Blaise Pascal – Colmar (France)

## Experiences

- February-June 2022 – Master 2 research internship on inverse problems
  - INSA Toulouse (France)
- May-July 2020 – Remote Master 1 internship on sandpile groups of supersingular isogeny graphs supervised by the Hebrew university of Jerusalem
- May-June 2019 – Internship on algebraic geometry – IRMA Strasbourg (France)

## Articles

- Jackpot: Approximating Uncertainty Domains with Adversarial Manifolds
  - N. M., E. Soubies, P Weiss (submitted, 2024)
- Exploring instabilities of inverse problem solvers with low-dimensional manifolds
  - N. M., E. Soubies, P Weiss (submitted, 2024)
- The MLE is a reliable source: sharp performance guarantees for localization
  - N. M., E. Soubies, P Weiss (Inverse Problems, 2023)
- Sketchpose: Learning to Segment Cells with Partial Annotations
  - C. Cazorla, N. M., R. Morin, P Weiss (submitted 2023)
- Algorithmes de visualisation de non-identifiabilité
  - N. M., E. Soubies, P Weiss (Gretsi, 2023)
- Sandpile groups of supersingular isogeny graphs
  - N. M., A. Shnidman (JTNB, 2023)

## Competitions

- 2021 – Ranked 13th at mathematics "agrégation", computer algebra option
- 2020 – TOEIC, 860 points
- 2018 – Admitted on a competitive basis in the ENS of Rennes
- 2016 – 1st prize in the 44th "Rallye de Mathématiques"
- 2016 – Awarded in the "Olympiades de la Chimie"
- 2015 – 3rd prize in the "Olympiades de Mathématiques de première S"

## My interests

Cooking, graphic design, biking, chess, running