

# Nicolas Beuvin

## Curriculum Vitae

LAMFA, 33 Rue Saint-Leu

80000

Amiens

\* 28 September 1998

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## ATER at LAMFA PhD in Mathematics

### Studies/ Career

#### High school (*Lycée Boucher-de-Perthes*)

- Degree : French *baccalauréat* in Science.

Abbeville 2016

#### Preparatory classes (CPGE) (*Lycée Louis Thuillier*)

- Cursus : *MPSI* and *MP\**.

Amiens 2016-2018

#### Third year bachelor degree in Mathematics (*University of Picardy Jules Verne - UPJV*)

- Degree : *Bachelor degree in Mathematics*.

Amiens 2018-2019

#### Master 1 in Mathematics (*UPJV*)

Amiens 2019-2020

#### Master 2 Preparation for *Aggrégation externe* in Mathematics (*UPJV*)

Amiens 2020-2021

- received at *agrégation* (French national teaching exam).

- National rank: **284/383**.

- Option : Scientific calculation.

- Degree: Master PAE *Preparation for Agrégation externe* in Mathematics.

#### Master 2 Applied analysis and modelisation - AAM (*UPJV*)

Amiens 2021-2022

- Degree: *Master 2 AAM* in Mathematics.

#### PhD student in Mathematics at LAMFA (*UPJV*)

Amiens 2022-2025

- Supervisor: Alberto Farina, Professor at UPJV.

- Thesis's title: Qualitative properties and geometric aspects of solutions to nonlinear partial differential equations in unbounded domains.

#### ATER at LAMFA (*UPJV*)

Amiens 2025-...

### Research topics

- Nonlinear elliptic partial differential equations.
- Overdetermined problems.
- Geometrics methods in nonlinear analysis.
- Qualitative properties and geometric aspects of solutions to nonlinear partial differential equations.

### Articles

- One-dimensional symmetry results for semilinear equations and inequalities on half-spaces. *N. Beuvin, A. Farina. Nonlinear Anal. TMA 264 (2026)*.
- Monotonicity for solutions to semilinear problems in epigraphs. *N. Beuvin, A. Farina, B. Sciunzi. 2025 (arXiv:2502.04805)*. Accepted for publication by *JMPA*.
- Serrin's overdetermined problems on epigraphs. *N. Beuvin, A. Farina. 2025 (arXiv:2502.04812)*. Submitted

### Seminars/ Conferences/...

- Phd students' seminar at LAMFA (05/04/2023): Qualitative properties of solutions to nonlinear elliptic partial differential equations.

- Phd students' seminar at LAMFA (11/10/2023): Nonlinear elliptic problems in unbounded domains.
- Phd student's seminar at LAMFA (09/10/2024): Serrin's overdetermined problem in epigraphs.
- Phd students' seminar at LAMFA (26/03/2025): Symmetry and classification results for solutions of nonlinear Poisson's equation.
- 12 th biennal of SMAI (*Société des mathématiques appliquées et industrielles*) (05/06/2025): Monotonicity results for solutions of nonlinear Poisson equation in epigraphs.
- MAP seminar at Pau (26/06/2025): Monotonicity results for solutions of nonlinear Poisson equation in epigraphs.
- PhD students' seminar at Pau (27/06/2025): Consequences of the monotonicity result on solutions to nonlinear Poisson equation in epigraphs.
- ICJ EDPA team day (Lyon) (30/09/2025): Monotonicity results for solutions of semilinear Poisson equation in epigraphs and applications.
- LAMFA A3 team seminar (Amiens): Classification of solutions to the semi-linear Poisson equation in unbounded domains.

### Participations to scientific meetings:

- *Semaine d'études mathématiques-entreprises* (SEME): Polytech Lille, 17-21 April 2023.
- Sobolev inequalities in the Alps, Institut Fourier, 29-30 June 2023.
- Youngs "EDPistes" days 2024, Toulouse Institut of Mathematics, 20-22 March 2024.
- Applied Analysis and Modeling: a conference in honor of Olivier Goubet, Paul Painlevé Laboratory, 4-6 November 2024.
- Amarena, University of Picardy Jules Verne, Amiens, 11-12 May 2023; 5-6 May 2025.
- 12 th biennal of SMAI, VTF Carcans-Maubuisson Gironde, 2-6 June 2025.
- Nonlinear elliptic PDE in Hauts-De-France, ULCO, Calais, 16-19 June 2025.
- GT Mathsbio Normands Day, LMRS, Rouen, 25 September 2025.

### Teachings

- Matrices and computations:
  - 2022/2023 - exercices sessions: 18h - First Year students.
  - 2023/2024 - exercices sessions: 28h - First Year students.
  - 2024/2025 - exercices sessions: 28h - First Year students.
  - 2025/2026 - exercices sessions: 56h - First Year students.
- Calculus methods and technics:
  - 2022/2023 - exercices sessions: 10h - First Year students.
  - 2025/2026 - exercices sessions: 18h - First Year students.
- Integration and Probabilities:
  - 2022/2023 - exercices sessions 36h - Third Year students.
  - 2023/2024 - exercices sessions 36h - Third Year students.
  - 2024/2025 - exercices sessions 36h - Third Year students.
- Topology:
  - 2025/2026 - exercices sessions 36h - Second Year students.

- Modeling:
  - 2025/2026 - exercices sessions 20h - Third Year students.
- Real analysis applied:
  - 2025/2026 - exercices sessions 32h - First Year students.
- Real analysis fundamental:
  - 2025/2026 - exercices sessions 32h - First Year students.

## Responsabilities

- Co-organisor of the PhD students' seminar, LAMFA, 2023-2024, with Owen Garnier and Mickael Schoonheere.
- Co-organisor of the PhD students' seminar, LAMFA, 2024-2025, with Marc Talleux and Mickael Schoonheere.

## Skills

- Good knowledge of  $\text{\LaTeX}$  and tikz.
- French: 1st language.
- English: medium level.