

Louise Gassot

Position

- 03/2022– **Postdoc**, *Basel University*, Switzerland, Under the supervision of Enno Lenzmann.
2021– **Postdoc**, *ICERM*, Providence, United States.
03/2022
2018–2021 **Teaching assistant in mathematics**, *ENS Ulm*, Paris.

Studies

- 2018–2021 **PhD Thesis under the supervision of Patrick Gérard**, *Université Paris-Saclay*,
“Long time behavior for solutions to nonlinear PDEs: orbital stability of traveling waves,
dispersion, integrability, damping”.
Jury : Hajer Bahouri, Catherine Sulem, Isabelle Gallagher, Nicolas Burq, Thomas Kappeler
2018 **Agrégation externe de Mathématiques (National competitive teaching examination)**,
Rank 2.
2016–2017 **Master’s degree in Mathematics**, *Université Paris-Saclay*, With highest honors.
2014 **Admission to the ENS Ulm**, Paris.
2012–2014 **Classes préparatoires MPSI-MP***, *Lycée Louis Le Grand*, Paris.

Publications

Published papers

- 2020 **Long time behavior of solutions for a damped Benjamin-Ono equation**, *Mathematische Zeitschrift* (2021). DOI 10.1007/s00209-021-02849-w.
2021 **The third order Benjamin-Ono equation on the torus : well-posedness, traveling waves and stability**, *Annales de l’Institut Henri Poincaré C, Analyse non linéaire*, 38-3 (2021), 815–840. DOI 10.1016/j.anihpc.2020.09.004.
2021 **On the orbital stability of a family of traveling waves for the cubic Schrödinger equation on the Heisenberg group**, *Bulletin de la SMF*, 149-1 (2021), 15–54. DOI 10.24033/bsmf.2824.
2020 **On the radially symmetric traveling waves for the Schrödinger equation on the Heisenberg group**, *Pure and Applied Analysis* 2-4 (2020), 739–794. DOI 10.2140/paa.2020.2.739.

Preprints

- 2022 **Pathological set of initial data for scaling-supercritical nonlinear Schrödinger equations**, arXiv:2203.04840, with Nicolas Camps.
2021 **Zero-dispersion limit for the Benjamin-Ono equation on the torus with single well initial data**, arXiv:2111.06800.
2021 **Probabilistic local well-posedness for the Schrödinger equation posed for the Grushin operator**, arXiv:2103.03560, with Mickaël Latocca.

Conferences and talks

Organizing committee

- 07/2021 Conference « Analyse et EDP : conférence en l’honneur de Patrick Gérard, à l’occasion de ses 60 ans », *Orsay, France*.

2019–2021 Seminar for PhD students in analysis, *Université Paris-Saclay, France*.

Talks at international conferences

- 01/2023 Workshop “Numerical and theoretical advances in quantum mechanics”, *Toulouse, France*.
- 06/2022 Conference “Normal forms and splitting methods”, *Pornichet, France*.
- 06/2022 Conference in memory of Jean Ginibre, *Orsay*.
- 06/2022 Conference “Journées Équations aux dérivées Partielles”, *Obernai, France*.
- 03/2022 “Journées Jeunes EDPistes”, *Université Claude Bernard Lyon 1*.
- 12/2021 Workshop “Numerical and analytical approaches for nonlinear dispersive PDE”, *Dijon, France*.
- 07/2021 Conference “Harmonic analysis and PDEs”, *Université d’Evry, France*.
- 07/2021 Analysis and PDEs: conference in honour of the 60th birthday of Patrick Gérard, *Orsay, France*.
- 10/2019 Conference “Numerical and analytical approaches for nonlinear dispersive PDEs”, *Dijon, France*.
- 09/2019 Conference “New trends in propagation of linear and nonlinear wave phenomena”, *Erice, Italy*.

Talks at seminars

- 03/2022 Virtual Maxwell Analysis Seminar, *Heriot-Watt University and University of Edinburgh, UK*.
- 02/2022 Brown University analysis seminar, *Providence, USA*.
- 01/2022 Seminar “Integrable Systems and Random Matrix Theory”, *University of Michigan, Ann Arbor, USA*.
- 11/2021 ICERM seminar, *Providence, USA*.
- 10/2021 Postdoc seminar, *Providence, USA*.
- 03/2021 “Ghent Methusalem Junior Analysis & PDE seminar”, *Ghent University, Belgium*.
- 03/2021 Analysis and PDE seminar, *AGM laboratory, CY Cergy Paris Université, France*.
- 10/2020 PDE seminar, *Université de Rennes 1, France*.
- 09/2020 Journée de rentrée de l’équipe ANEDP, *Université Paris-Saclay, France*.
- 05/2020 Second year PhD students’ talks in ANEDP team, *Université Paris-Saclay, France*.
- 04/2020 PhD students’ seminar at LJLL, *UPMC, France*.
- 02/2020 PhD students’ seminar, *Université Paris-Saclay, France*.
- 02/2020 PhD students’ seminar at IMJ-PRG, *Université Paris Diderot, France*.
- 10/2019 Journée de rentrée de l’équipe d’Analyse du DMA, *ENS Ulm, France*.

Attended conferences

- 12/2021 Hamiltonian Collaboration on Wave Turbulence Annual Meeting, *Simons Foundation, New York, USA*.
- 09/2021–12/2021 Semester program “Hamiltonian Methods in Dispersive and Wave Evolution Equations”, *ICERM, Providence, USA*.
3 workshops during the semester, 5 minutes “Lightning talks”
- 06/2019 Workshop “Integrability and Nonlinear Dispersive Equations”, *CIRM, Marseille Luminy, France*.
- 03/2019 Conférence “Les 60 ans de Jean-Yves Chemin”, *IHP, Paris, France*.
- 08/2017 Focus Program on Nonlinear Dispersive Partial Differential Equations and Inverse Scattering, *Fields Institute, Toronto, Canada*.
- 06/2017 Journées EDP 2017, *Roscoff, France*.

Teaching and dissemination of mathematics

Teaching

- 2018–2021 **Teaching assistant for the “Functional analysis” course**, *ENS Ulm, Paris*.
- 2015–2018 **Oral examiner in *Classes préparatoires***, *Lycée Louis Le Grand, Paris*.

Teaching publication

2018 **Les Clefs pour l'oral MP Mathématiques, ENS-X (Sessions 2016 et 2017)**, *Calvage et Mounet*, ISBN 2916352724,
With Thomas Blomme, Quentin Guignard and Bernard Randé.

Dissemination of mathematics

03/2022 **Talk at Women in Science day, SIAM student chapter**, *University of Buffalo, Buffalo, USA*.

2020 **Outreach presentation**, *Université Paris-Saclay, France*,
Research talk aimed at bachelor students.

2018 & 2019 **“Rendez-vous des jeunes mathématiciennes”**, *ENS Ulm, France*,
Talks and speed-meetings, aimed at high school female students, in order to promote higher education and research in mathematics and computer science.

2014–2019 **Teaching in the French mathematical olympiad training**,
- Lectures, marking of exams, supervision of internships in Animath association
- 2021: Official language committee at the IMO (International Mathematical Olympiad)
- 2019: Deputy leader of the French team at the IMO, *Bath, United Kingdom*
- 2015: Deputy leader of the French team at the EGMO (European Girls' Mathematical Olympiad), *Minsk, Bielorussia*.

Awards and distinctions

2017 **Concours SMF junior**, (a mathematics competition organized by the SMF which aims to promote research in mathematics among undergraduate and graduate students),
Second prize ex-aequo, with Pierre-Louis Blayac and Matthieu Piquerez .

2012 **International Mathematical Olympiads**, *Mar Del Plata, Argentina*,
Bronze medal.

2012 **Balkan Mathematical Olympiads**, *Antalya, Turkey*,
Bronze medal.

2012 **Concours Général de mathématiques**,
Mention.

2011 **Olympiades Académiques de mathématiques**,
Academy third prize.