Julien Boulanger

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EDUCATION

2021- 2024: PhD Thesis, *Institut Fourier*, Université Grenoble Alpes, supervised by Erwan LANNEAU and Daniel MASSART.

2020-2021: Preparation for the *Agrégation de mathématiques*. Université Grenoble Alpes. Ranked 22nd out of all France.

2018-2019: Master 2 in pure mathematics. *Sorbonne université*, Paris. With highest honours. Master's thesis on Veech groups of translation surfaces under the supervision of Erwan LANNEAU.

2018: Five month internship at the University of Warwick, UK, under the supervision of Mark POLLICOTT on the ergodic theory of the horocycle flow on a hyperbolic surface.

2016-2018: Bachelor and Master 1 at the, *École normale supérieure*, Paris. With highest honours.

2016-2021: Student at the *École normale supérieure de Paris*.

2014-2016: *Classe préparatoire aux grandes écoles*, MPSI, MP*. *Lycée du Parc*, Lyon. With highest honours.

2014: *Baccalauréat scientifique spécialité mathématiques.* With highest honours.

PUBLICATIONS AND PRE-PUBLICATIONS

- JULIEN BOULANGER, *Central points of the double heptagon translation surface are not connexion points. Bulletin de la SMF, Vol. 2, 2022*

- JULIEN BOULANGER AND SAM FREEDMAN, *There are no primitive Teichmüller curves in* $Prym(2,2)$. Accepted for publication at the *Comptes rendus de l'académie des sciences.*

- JULIEN BOULANGER, ERWAN LANNEAU AND DANIEL MASSART, *Algebraic intersections in regular polygons. Available on Arxiv*, 2022.

- JULIEN BOULANGER, *Algebraic intersections, lengths, and Veech groups. Available on Arxiv*, 2023.

- JULIEN BOULANGER, *Lower bound for KVol on the minimal stratum of translation surfaces. Available on Arxiv*, 2023.

ACADEMIC RESPONSIBILITIES

2022- 2024: Organizer of the weekly PhD seminar of the Institut Fourier. It includes the organisation of two two-days conferences (2022 and 2023) for the PhD students of the Institut Fourier.

TEACHING

2023-2024: Mathematical tools for the natural sciences. In english. To first year undergraduate international students.
2022-2023: Outils mathématiques pour la biologie. In french. To first year undergraduate students.
2021-2022 and 2022-2023: Algèbre bilinéaire, formes quadratiques, séries de Fourier. In french. To second year undergraduate students.
2021-2022: Introduction to Analysis. In english. To first year undergraduate international students.
2020-2021: Colles, MPSI, *Lycée Champollion*, Grenoble.
2019-2020: Volunteer with the association Mayaa Nepal, in Kathmandu [1], 5 months during which I gave English and computer lessons to primary/middle school students.
2016-2017: Astrophysics teaching to high school students under the program *TalENS* of *pôle PESU* [2].

TALKS

- Conference "Smooth manifolds and related topics", Luxembourg, March 2024.
- Geometry seminar, Université de Rennes, February 2024.
- Geometry seminar, Université de Toulouse, January 2024.
- Geometry seminar, Max Planck Institute, Leipzig, January 2024.
- Winter school in dynamical systems, Aussois, December 2023.
- PhD seminar of the Institut Montpellierain Alexander Grothendieck, Montpellier, November 2023.
- Geometry seminar of the Institut Montpellierain Alexander Grothendieck, Montpellier, November 2023.
- Geometry seminar of the Universität des Saarlandes, Sarrebruck, July 2023.
- Interactions between geometry and topology, to celebrate Ivan Babenko, Banyuls-sur-Mer, June 2023.
- PhD seminar of the Institut Fourier, Grenoble, November 2022.
- PhD days of the Institut Fourier, Grenoble, October 2022.
- Workshop "Hyperbolic dynamical systems, geometry and spectral theory", Peyresq, June 2022.
- Conference "Geometry, topology and dynamics in low dimension", Sète, May 2022.
- Number theory seminar of Oregon State University. March 2022.
- Geometry seminar of the Institut mathématique de Marseille. February 2022.
- Winter school "Billards dans le Vercors". January 2022.
- Presentation aimed at a wide audience *"Polygonal billiards and translation surfaces"*, as part of the scientific conferences organized by the French Embassy in China. December 2021.
- Geometry and Topology seminar, Institut Fourier, September 2021.

ATTENDED CONFERENCES

- Conference "Smooth manifolds and related topics", Luxembourg, March 2024.
- Winter school in dynamical systems, Aussois, December 2023.

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[1] https://mayaa.world
[2] https://pesu.ens.fr/talens/

- Conference Renormalization and visualisation in dynamics, geometry and number theory, CIRM, Décembre 2023.
- Meeting for young researchers of the GDR Platon, Grenoble, Novembre 2023.
- Workshop on Renormalization and visualisation in dynamics, geometry and number theory, CIRM, September 2023.
- Reshearch school on Renormalization and visualisation in dynamics, geometry and number theory, CIRM, July 2023.
- Interactions between geometry and topology, to celebrate Ivan Babenko, Banyuls-sur-Mer, June 2023.
- Winter school in dynamics and geometry, Lille, March 2023.
- Meeting for young researchers of the GDR Platon, Orsay, Novembre 2022.
- Conference "Big mapping class groups", CIRM, October 2022.
- Conference "Combinatorics, Dynamics and Geometry on Moduli Spaces", CIRM, September 2022.
- Workshop "Hyperbolic dynamical systems, geometry and spectral theory", Peyresq, June 2022.
- Sage days 112.5, Montpellier, June 2022.
- Conference "Geometry, topology and dynamics in low dimension", Sète, May 2022.
- Meeting of the ANR Modiff, Bordeaux, April 2022.
- Winder school "Billards dans le Vercors", Autrans, January 2022.
- Winter school in dynamics and geometry, Aussois, December 2021.
- Meeting for young researchers of the GDR Platon, CIRM, November 2021.
- Meeting of the ANR Adyct, Nantes, November 2021.

OTHER

Languages	French (native), english (advanced), spanish (basic)
Programming	LaTeX, Python (and Sagemath)
Music	Piano, trombone
Interests	Music, cooking, hiking...