Laura Monk

7 rue René Descartes
67 000 Strasbourg (France)
(+33) 03 68 85 02 77
monk@math.unistra.fr

Education

2018 – 21 **PhD in Mathematics** under the supervision of Nalini Anantharaman, *University of Strasbourg, Institut de Recherche Mathématique Avancée*.
The spectrum of random hyperbolic surfaces of high genus

2014 – 18 **École Normale Supérieure**, *Paris*.

2017 – 18 **Master's degree in Mathematics** (with honours), *Paris-Sud University*.

2017 **Agrégation of Mathematics** (7th place).
Secondary-school and University Teaching degree

2014 – 15 **Bachelor's degrees** in Mathematics and in Physics (with honours), *Paris-Sud University*.

2012 – 14 **Preparatory class** in Mathematics and Physics, *Lycée Privé Sainte Geneviève, Versailles (France)*.

Publications and preprints

2020 L. Monk, J. Thomas, *The tangle-free hypothesis on random hyperbolic surfaces*, submitted.

2020 L. Monk, *Benjamini-Schramm convergence and spectrum of random hyperbolic surfaces of high genus*, submitted.

2017 J.B. Fouvry, C. Pichon, P. Chavanis, L. Monk, *Resonant thickening of self-gravitating discs: imposed or self-induced orbital diffusion in the tightly wound limit*, Monthly Notices of the Royal Astronomical Society.

Awards and grants

2019 Best Poster in Mathematics price from the Doctoral School, *École Doctorale MSII, Strasbourg (France)*.

2018 – 21 PhD grant from the ENS Ulm.

2014 – 18 Full scholarship at the ENS Ulm.

Conferences and seminars

12/20 Oberseminar Differentialgeometrie (online), *Max Planck Institute for Mathematics, Bonn (Germany).*

12/20 Young researchers conference "Jeunes géomètres dynamiques", *GdR Platon, Institut de recherche mathématique de Rennes (France).*

12/20 Geometry seminar, *Université de Nantes (France).*

11/20 Probability seminar (online), *Université Paris-Saclay (France).*

11/20 Dynamical systems seminar (online), *Bremen-Oldenburg (Germany).*

11/20 Geometry seminar (online), *University of Leeds (UK).*

10/20 Seminar "Billiards and Surfaces à la Teichmüller and Riemann" (online).

06/20 Analysis informal seminar (online), *Cardiff University (UK).*

05/20 Geometrical Analysis seminar (online), *organised by Frédéric Naud.*

11/19 8th Strasbourg / Zurich Meeting: Frontiers in Analysis and Probability, *University of Zurich (Switzerland).*

05/19 Seminar "Théorie spectrale et Géométrie", *Institut Fourier, Grenoble (France).*

05/19 Workshop STROM : Spectral Theory and pRObability in Mathematical physics, *IRMA, Strasbourg (France).*

04/19 Workshop Dynamics of geodesic flows and applications to PDEs, *ANR ISDEEC, École Polytechnique, Palaiseau (France).*

04/19 Poster session at the SMF research school "Du quantique au classique", *CIRM, Marseille (France).*

19 Reading seminar on Weil-Petersson volumes and Mirzakhani's recursion formula, with Federica Fanoni and Yohann Bouilly (organization + two talks), *IRMA, Strasbourg (France).*

10/18 Analysis seminar, *IRMA, Strasbourg (France).*

Teaching

2020 – 21 **Lecturer**, *University of Strasbourg (France)*, analysis - 2nd year.

2018 – 21 **Teaching assistant**, *University of Strasbourg (France).*

- analysis - 2nd year in computer science
- differential equations - 3rd year
- written, oral exams, individual tutoring for the preparation of the agrégation
- oral exams in analysis - 1st and 2nd year
- mathematical circle (math club for high-school students)

2017 – 18 **Tutoring class**.

1st year of economic, social and legal sciences, CPES, Paris.

2014 – 18 **Oral examiner in preparatory schools**, *MPSI, MP*, HK B/L.*

Sainte-Geneviève (Versailles), Fénelon Sainte-Marie and Henri IV (Paris).

Other activities

2018 and 19 **Organization of the RJM**, *University of Strasbourg*.
Three-day meeting for high school girls to conduct mathematical group activities, meet female researchers and engineers and speak about gender issues.

2017 **Jury for the TFJM^2**.
Conference-like mathematical competition for high-school students.

2017 **Outreach talk** for undergraduates, *Lycée Privé Sainte-Geneviève*.

2015 **Arts Students' Union**, *École Normale Supérieure*.

Skills

Languages French (mother tongue), English (fluent), Spanish (basic).

Programming C, Caml, LaTeX, Maple, Mathematica, Python.