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Yann Chaubet

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né le 13 décembre 1995

Education, Professional background

- Oct 2022— **Herchel Smith Research Fellow**, Cambridge University.
- 2019—2022 **Ph.D thesis in Fundamental Mathematics**, under the supervision of Colin Guillarmou, entitled « On some geometric applications of the spectral theory of hyperbolic flows », defended September 12, 2022.
- 2014–2019 **Student at the École Normale Supérieure**, Paris.
- 2017–2018 **Master 2**, Fundamental mathematics, Sorbonne Université, *highest honors*.
Master 2 thesis, *The Ruelle zeta function for Anosov flows*, under the supervision of Colin Guillarmou.
- 2015–2016 **Master 1**, Mathematics, ENS Paris, *highest honors*.
- 2014–2015 **Bachelor**, Mathematics, ENS Paris, *highest honors*.
Bachelor's thesis, *The positive mass theorem*, under the supervision of Cécile Huneau.

Publications

Preprints

Geodesic Levy flights and expected stopping time for random searches, with Yannick Guedes Bonthonneau, Thibault Lefeuvre et Léo Tzou, arXiv preprint 2211.13973. 2022. Submitted.

Resolvent of vector fields and Lefschetz numbers, with Yannick Guedes Bonthonneau, arXiv preprint arXiv :2211.08809. 2022. Submitted.

Dynamical zeta functions for billiards, with Vesselin Petkov, arXiv preprint arXiv :2201.00683. 2022. Submitted.

Dynamical torsion for contact Anosov flows, with Nguyen Viet Dang, arXiv :1911.09931. In revision at Analysis & PDE.

Articles acceptés pour publication

- 2022 **Closed billiard trajectories with prescribed bounces**, *Annales Henri Poincaré*, pages 1–25. Springer, 2022.

Poincaré series for surfaces with boundary, *Nonlinearity*, 35(12) :5993, 2022.

Closed geodesics with prescribed intersection numbers, *to appear in Geometry & Topology*.

Teaching

2019–2022 **Teaching assistant**, *Course of dynamical systems*, ENS Paris.

2018-2019 **Oral examinations**, PC*, Lycée Saint-Louis.

Experiences

2017 **Research and development in analysis of mobility**, Paris.
Five months work as a machine learning ingeneer for the start-up Geo4Cast (ex it4pme).

2016 **Master 1 internship**, under the supervision of Enrique Pujals, IMPA, Rio de Janeiro.

Thesis entitled “A C^∞ -closing lemma and the Lefschetz formula”.

Talks

International conferences

Juin 2023 **Analytic techniques in Dynamics and Geometry**, Les Diablerets.

Nov 2022 **Geometrical Inverse Problems**, Linz.

Mar 2022 **Rigidity problems in geometry**, Roscoff.

Fev 2022 **Spectra and Dynamics on (Locally) Symmetric Spaces**, Paderborn.

Dec 2021 **Spectral Geometry in the clouds**, Online.

Nov 2021 **ANR "Aléatoire, dynamique et spectre" meeting**, Nantes.

Sep 2021 **Hyperbolic dynamical systems and resonances**, Porquerolles.

Avr 2021 **Ruelle-Pollicott Resonances in dynamics and semiclassical analysis**, Lausanne (online).

Avr 2020 **Spectral problems, hyperbolic dynamical systems and quantum chaos**, Online.

Oct 2018 **NxSE Tech Forum**, Paris.

Seminars

Dec 2022 **Séminaire Géométrie et Topologie**, Institut de Mathématiques de Marseille.

Nov 2022 **Séminaire Géométrie et Topologie**, Institut de Mathématiques de Jussieu.

Mai 2022 **Séminaire Gaston Darboux**, Institut Montpellierain Alexander Grothendieck.

Avr 2022 **Oberseminar Dynamische Systeme**, Ruhr-Universität, Bochum.

- Avr 2022 **Seminari di Sistemi Dinamici**, Centro di Ricerca Matematica Ennio De Giorgi, Pisa.
- Fev 2022 **Séminaire de Physique Mathématique**, Institut de Mathématiques de Bordeaux.
- Juin 2021 **Séminaire de géométrie**, Institut de Mathématiques d'Orsay.
- Avr 2021 **Geometrische Analysis und Zahlentheorie**, Universität Paderborn.
- Mar 2021 **Séminaire de vulgarisation des doctorants**, Institut de mathématiques d'Orsay.
- Nov 2020 **Séminaire d'analyse des doctorants**, Institut de mathématiques d'Orsay.
- Fev 2020 **Séminaire d'Analyse Harmonique**, Institut mathématique d'Orsay.
- Jan 2020 **Séminaire Teich**, Institut mathématique de Marseille.
- Fev 2019 **Working group : b-calculus**, Institut mathématique d'Orsay.