

# Yann Chaubet

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## Positions

- 2023– **Assistant Professor**, Nantes Université.  
2022–2023 **Herchel Smith Research Fellow**, University of Cambridge.  
By-Fellow of Churchill college

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## Education

- 2019–2022 **P.h.D in fundamental mathematics**, under the supervision of Colin Guillarmou, Université Paris-Saclay.  
2014–2019 **École normale supérieure**, Paris.

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## Publications and Preprints

**Minimax spectral estimation of weighted Laplace operators**, with Vincent Divol.  
preprint arXiv :2511.22694

**Dynamical zeta functions**, book chapter in *Microlocal analysis in hyperbolic dynamics and geometry* by Thibault Lefeuvre.  
To appear in *Cours spécialisés de la SMF*.

**Nonlinear chaotic Vlasov equations**, with Daniel Han-Kwan and Gabriel Rivière.  
preprint arXiv :2407.04426

**Combinatorial zeta functions for triangles**, with Léo Bénard, Nguyen Viet Dang and Thomas Schick.  
preprint arXiv :2303.11226

**Geodesic Lévy flights and expected stopping time for random searches**, with Yannick Guedes Bonthonneau, Thibault Lefeuvre and Leo Tzou.  
*Probability theory and related fields*, 2025, vol. 191, no 1, p. 235–285

**Dynamical zeta functions for billiards**, with Vesselin Petkov.  
To appear in *Annales de l'Institut Fourier*.

**Resolvent of vector fields and Lefschetz numbers**, with Yannick Guedes Bonthonneau.  
*Pure and Applied Analysis*, Vol. 6 (2024), No. 2, 521–540

**Dynamical torsion for contact Anosov flows**, with Nguyen Viet Dang.  
*Analysis & PDE*, Vol. 17 (2024), No. 8, 2619–2681

**Closed geodesics with prescribed intersection numbers**.  
*Geometry & Topology*, 28 :701–758, 2024

**Closed billiard trajectories with prescribed bounces**.  
*Annales Henri Poincaré*, Vol. 24, No. 3, pp. 1051–1075, 2022

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

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## Awards and grants

- 2025 **International Emerging Action**, partnership with Melbourne University, 28 k€.
- 2025 **PEPS**, 4,4 k€.
- 2023 **PULSAR**, 10 k€.
- 2022 **Herschel Smith Research Fellowship**, 15 k€/year for three years.

## Organization of conferences

- 2025 **Journées brestoises des jeunes chercheuses et chercheurs en analyse microlocale**, Brest.
- 2025 **Three days workshop on geometry, analysis and dynamics**, Longeville-sur-Mer.
- 2024 **ANR Adyct workshop**, Nantes, France.
- 2024 **Workshop on pseudo-holomorphic curves**, Teyran, France.

## Invited talks

### International conferences

- Sep 2024 **Rigidity phenomena in dynamics and spectral theory**, Zurich.
- Nov 2023 **Workshop : Hyperbolic dynamics and semiclassical analysis**, Jussieu.
- Jun 2023 **Analytic techniques in Dynamics and Geometry**, Les Diablerets.
- Mar 2023 **Rencontre aléatoire, dynamique et spectre**, Grenoble.
- Mar 2023 **École de printemps géométrie et dynamique**, Lille.
- Mar 2023 **Paris-London Analysis seminar**, London.
- Nov 2022 **Geometrical Inverse Problems**, Linz.
- Mar 2022 **Rigidity problems in geometry**, Roscoff.
- Feb 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.
- Apr 2021 **Resonances in dynamics and semiclassical analysis**, Lausanne.
- Apr 2020 **Spectral problems, hyperbolic dynamical systems and quantum chaos**, Online.
- Oct 2018 **NxSE Tech Forum**, Paris.

### Seminars

- Oct 2025 **Journée Rennes-Nantes d'analyse**, Rennes.  
Mini cours (2x1h)
- Jan 2025 **Séminaire de dynamique, probabilités et statistique**, Brest.
- Nov 2024 **Séminaire de géométrie**, Tours.
- Fev 2024 **Séminaire Quimpériodique**, Quimper.
- Jan 2024 **Séminaire Topologie, Géométrie et Algèbre**, Nantes.
- Jun 2023 **Ergodic Theory and Dynamical Systems Seminar**, Bristol.
- Mar 2023 **Séminaire Géométrie et Analyse Globale**, Nantes.
- Fev 2023 **London Analysis and Probability seminar**, London.
- Fev 2024 **Ergodic Theory and Dynamical Systems Seminar**, Warwick.
- Feb 2023 **Workgroup on rigidity problems**, Cambridge University.
- Jan 2023 **Differential geometry and topology seminar**, Cambridge University.
- Dec 2022 **Séminaire Géométrie et Topologie**, Institut de Mathématiques de Marseille.
- Nov 2022 **Séminaire Géométrie et Topologie**, Institut de Mathématiques de Jussieu.

May 2022 **Séminaire Gaston Darboux**, Institut Montpellierain Alexander Grothendieck.  
Apr 2022 **Oberseminar Dynamische Systeme**, Ruhr-Universität, Bochum.  
Apr 2022 **Seminari di Sistemi Dinamici**, Centro di Ricerca Matematica Ennio De Giorgi, Pisa.  
Feb 2022 **Séminaire de Physique Mathématique**, Institut de Mathématiques de Bordeaux.  
Jun 2021 **Séminaire de géométrie**, Institut de Mathématiques d'Orsay.  
Apr 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.