Gabriel Pallier

Postdoctoral researcher

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French citizen, born on May 3rd, 1992 in Paris (France). CV last update: March 2023.

Appointments

2022 – 2025   **Postdoctoral researcher**, *Karlsruhe Institute of Technology*, Karlsruhe, Germany.
Advisor: C. Llosa Isenrich.

2021 – 2022   **Teaching and research associate**, *Sorbonne Université*, Paris, France.

2019 – 2021   **Postdoctoral researcher**, *University of Pisa and University of Fribourg*, Pisa and Fribourg, Italy and Switzerland.
Advisor: E. Le Donne.

Education and degrees

2016 – 2019   **PhD in mathematics**, *Paris-Sud University*, Orsay, France.
Dissertation: *Sublinear asymptotic geometry: hyperbolicity, self-similarity, invariants*, advisor: Pierre Pansu.

2016   **Master's degree in mathematics**, *Paris-Sud University*, Orsay, France.

2011- 2015   **Studies at École polytechnique**, Palaiseau, France.

Research publications

Published or to appear

4. **On the logarithmic coarse structures of Lie groups and hyperbolic spaces**, *Geometriae Dedicata* **216**, paper no. 56 (2022).

3. with C. Llosa Isenrich and R. Tessera, **Cone equivalent nilpotent groups with different Dehn functions** (arXiv:2008.01211), *Proceedings of the London Mathematical Society*, to appear.

2. **Sublinear quasiconformality and the large-scale geometry of Heintze groups** *Conformal Geometry and Dynamics* **24** (2020) 131 – 163.

1. **Large-scale sublinearly Lipschitz geometry of hyperbolic spaces**, *Journal of the Institute of Mathematics of Jussieu* **19** (6), 1831-1876 (2020).

Submitted preprints

○ On the finitely generated groups quasiisometric to bifiliform-by-cyclic groups, appendix to *Geometric rigidity of quasi-isometries in horospherical products* by Tom Ferragut.

○ with Yulan Qing, *Sublinear bilipschitz equivalence and sublinearly Morse boundaries* (arXiv: 2211.01023).

○ with Enrico Le Donne and Xiangdong Xie, *Rough similarity of left-invariant Riemannian metrics on some Lie groups* (arXiv 2208.06510).

Research talks

2023   **Workshop "Metric analysis, parametrizations, Surfaces"**, Fribourg, Switzerland.

   Virtual French-speaking seminar on groups and geometry, France (virtual).

2022   **University of Bern**, Switzerland.

   Fudan university, Shanghai, China (virtual).

   University of California, Santa Barbara, United States (virtual).

   University of Lille, France.

   University of Nice, France.

   Univerity of Dijon, France.

University of Clermont-Ferrand, France.

2021 **ETH Zurich**, Switzerland.

Université de Paris, France.

Bowling Green State University, United States (virtual).

2020 **University of Fribourg**, Switzerland.

University of Wisconsin - Milwaukee , United States (virtual).

University of Jyväskylä, Finland.

2019 **University of Aix-Marseille**, France.

University of Bristol, United Kingdom.

University of Oxford, United Kingdom.

Karlsruhe Institute of Technologie, Germany.

2018 **Paroles aux jeunes chercheurs 2018 : groupes et géométrie**, *Institut Camille Jordan*, Lyon, France.

PhD student seminar, Nantes, France.

2017 **PhD student seminar, Rennes**, France.

PhD student seminar, Créteil, France.

PhD student seminar, Orsay, France.

Teaching appointments

2022 - **Teaching assistant**, *KIT*, Karlsruhe, Germany.

2021 - 2022 **Teaching associate**, *Sorbonne université*, Paris, France.

2020 - 2021 **Teaching assistant**, *Université de Fribourg*, Fribourg, Switzerland.

2016 – 2019 **Teaching assistant**, *Institut Universitaire de Technologie d'Orsay*, Orsay, France.

2014 **Teaching assistant**, *Institut National des Sciences Appliquées de Lyon*, Villeurbanne, France.

Academic responsibilities, community work

2021 – 2022 **Co-editor for the monthly press review of the website "Image des mathématiques" hosted by the CNRS**.

2020 – **Reviewer for zbMATH Open and Mathematical Reviews**.

2017 – 2019 **Co-organizer of the seminar Mathematic Park**, *Institut Henri Poincaré*, Paris, France.

2018 **Co-organizer of the math PhD student seminar**, Orsay, France.

Mathematical education publications

2. **Le jeu SET ou la pêche à la ligne**, *Quadrature* **106**, 25-34, 2017.
1. **Une géométrie pour les graphes d'amitié**, *Quadrature* **99**, 16-19, 2016.

Awards

2015 – 2016 **Scholarship of the Fondation Mathématique Jacques Hadamard**.
One-year scholarship for Master studies.