

Dr. Amandine Escalier

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Academic career

Oct. 2021 — Post-doc, University of Münster, Münster, Germany

Ph.D (2018–2021)

Title Local and Asymptotic Geometry of Groups

Subtitle Buildings and LG-rigidity — Measure and Orbit Equivalence

Advisors Romain Tessera, Jérémie Brieussel

Institution Institut de Mathématiques de Jussieu - Paris Rive Gauche – UMR 7586

Formation

2017 - 2018 Master degree “Fundamental Mathematics”, Université Pierre et Marie Curie, Paris

July 2017 Accepted to the french *agrégation de mathématiques*

2015 - 2016 First year of master degree in mathematics (M1), Université Claude Bernard, Lyon

2014 - 2015 Bachelor degree (L3), École Normale Supérieure de Lyon, Lyon

July 2014 Accepted to the École Normale Supérieure de Lyon, ranked third to the entrance examination for university students

Research work

Publications

May 2022 *Sofic approximations and optimal quantitative orbit equivalence*

arXiv:2205.12137

Feb. 2022 *Building prescribed quantitative orbit equivalence with Z*

arXiv:2202.10312 (to appear in *Groups, Geometry and Dynamics*)

Aug. 2020 *Local-to-Global-rigidity of lattices in $SL_n(\mathbb{K})$*

Annales de l'Institut Fourier, Tome 72 (2022) no. 5, pp. 1733-1771. arXiv:2008.07250

Research stays

Nov. 2022 IMO, Orsay, 1 week

Invited by Camille Horbez

July 2022 Institut Henri Poincaré, Paris, 1 week

Invited by Camille Horbez

Talks

Invited speaker

Juin 2023 Conference *Groups and operator algebra*, IMO, Orsay

Mar. 2023 Workshop *Measured group theory*, CRM, Montréal

Nov 2022 Conference *Group Actions: Dynamics, Measure, Topology*, Münster

Sept 2022 Series of talks on measure equivalence, Organised by Lewis Bowen, Online

May 2022 Conference *Low-dimensional geometry, topology, and dynamics*, Sète

Nov. 2021 Annual conference of the research group “*Geometry, Dynamic and Probability (Platon)*”, Marseille

June 2021 Annual conference of the french ANR grant “*Operator Algebras and group dynamics*”, Paris

Dec. 2020 Annual conference of the research group “*Non-commutative Geometry*”, Online conference

Conferences

Oct. 2021 **Conference “Buildings 2021”, Otto-von-Guericke-University, Magdeburg**

Seminars

2022 Oxford, Lyon, Clermont-Ferrand, Münster, Dijon, Bordeaux

2021 Münster, Montpellier, Orsay, Séminaire Virtuel Francophone

2020 Paris, Montpellier

Teaching

Oct. 2021 - **Author of exercise sheets, WWU Münster, Münster**

Feb. 2022 Writing the exercise sheets and their solutions for the course “geometric group theory” for third year students, taught by Prof. Kramer.

Sept. 2018 - **Teaching assistant (64h/year), Université Paris Diderot, Paris**

June 2020 **2018-2019** Tutorial of general analysis and algebra for first year students in physics-chemistry.

2019-2020 Oral interrogations for first year students in mathematics. Tutorial of arithmetics and group theory for second year student in computer science.

May 2016 **Oral examiner trainer, Lycée du Parc, Lyon**

Preparing first year students in french “classes préparatoire” (first year undergraduate students) for entrance examination to engineering schools and Écoles Normales Supérieures

Attended conferences and research schools

Nov 2022 **Group Actions: Dynamics, Measure, Topology, Münster**

June 2022 **Self-similarity of groups, trees and fractals IHP, Paris**

May 2022 **Low-dimensional geometry, topology, and dynamics, Sète**

May 2022 **Workshop “Operator algebras and Group Dynamics” CIRM, Marseille**

Apr. 2022 **Research school “Groups Acting on Fractals” CIRM, Marseille**

Apr. 2022 **Topological and Homological Methods in Group Theory, Bielefeld**

Mar. 2022 **Geometric Structures in Group Theory, Oberwolfach**

Dec. 2020 **Winter school “Totally Disconnected Locally Compact Groups”, EPFL, Lausanne**

Oct. 2020 **Measured and Geometric Group Theory, Rigidity, Operator Algebras, CIRM, Marseille**

Feb. 2020 **Young Geometric Group Theory (YGGT) IX, Saint-Jacut-de-la-Mer**

Oct. 2019 **Oberwolfach Seminar “Growth in Finite and Infinite Groups”, Oberwolfach**

Aug. 2019 **Geometry and approximation, Dresden**

July 2019 **Summer school “Aspects of Geometric Group Theory”, Bures-sur-Yvette**

June 2019 **Young Geometric Group Theory (YGGT) VIII, Bilbao**

Mar. 2019 **Meeting of the ANR project “GAMME”, Saint-Étienne-de-Tinée**

Jan. 2019 **Winter school “Geometric Group Theory” CIRM, Marseille**

Scientific mediation and associative activities

Responsibilities

Since Jan. 2018 **Proofreader for the editorial board of the association MATH.en.JEANS**

April 2022 **Member of the task force “Helping mathematicians from Ukraine”, WWU Münster**

Task force in charge of allocating scholarships and hosting solutions for Ukrainian students and researchers

Spring 2021 **Co-author of a survey on sexual violence within IMJ-PRG**

Survey to assess gender-based and sexual violence experienced by doctoral students.

Apr. 2019 - **Member of the Ph.D students board, IMJ-PRG, Paris**

July 2020

Talks

- Juin 2022 **Post-doc Colloquium**, *WWU Münster*
Short talk describing my research to the members of the Institute
- Apr. 2019 **Master-Ph.D meeting**, *Université Paris Diderot, Paris*
Short talk describing my Ph.D subject to master students

Languages

- French Mother tongue
English Conversationnal
German Elementary (A2)

Other Activities

- Sport Swimming since 2004, including six years of sports-study (from 11 to 17 years old) to an interregional level.
- Associative Member of the editorial board of the student newspaper of the ENS de Lyon from 2015 to 2020.