Amandine Escalier

Associate professor (Maîtresse de conférence)

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Academic career

Since Sept 2024	**Associate professor** *(Maîtresse de conférence)*, *Institut Camille Jordan, Université Claude Bernard, Lyon 1*, Lyon (France)
Sept 2023 — Aug. 2024	**Post-doc**, *Institut de Mathématiques d'Orsay, CNRS & Université Paris Saclay*, Orsay (France) Member of the ERC Starting Grant project led by Camille Horbez.
Oct. 2021 — Aug. 2023	**Post-doc**, *University of Münster*, Münster, Germany Member of Linus Kramer's team.

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
2012 - 2014	**First two years of bachelor degree in mathematics (L1, L2)**, *Université Pierre et Marie Curie*, Paris

Research work

Publications

Feb. 2022	**Building prescribed quantitative orbit equivalence with the group of integers** *Groups, Geometry and Dynamics*, Vol. 18 (2024), no. 3, pp. 1007–1035. arXiv:2202.10312
Aug. 2020	**Local-to-Global-rigidity of lattices in $SL_n(K)$** *Annales de l'Institut Fourier,* Tome 72 (2022) no. 5, pp. 1733-1771. arXiv:2008.07250

Prepublications

Jan. 2024	*Graph products and measure equivalence: classification, rigidity, and quantitative aspects* Joint work with Camille Horbez, arxiv:2401.04635
May 2022	*Sofic approximations and quantitative measure couplings*, arXiv:2205.12137

Research stays

Sept. 2024	**As a** *Young Research Fellow* **at the cluster** *Mathematics Münster*, 3 weeks *Invited by Linus Kramer*
July 2022	**Institut Henri Poincaré**, Paris, 1 week *Invited by Camille Horbez*

Talks

Conferences as invited speaker

Sept. 2024	Conference *Buildings 2024*, Münster
Sept. 2024	Conference *Probability, Dynamics, and the Geometry of Group*, Münster
July 2024	Conference *Équivalence orbitale*, Besse-en-Chandesse, (Mini-course, 3h)
Nov. 2023	Conference *Bruhat-Tits buildings and applications*, Poitiers
Sept. 2023	Workshop *Leaning into Topology*, Pisa, Invited, but participation cancelled
June 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 (without invitation)

Nov. 2023	Forum for young mathematicians, *ULB*, Bruxelles
Aug. 2023	Conference *"Coarse Geometry and Dynamics"*, *ENS de Lyon*, Lyon
Oct. 2021	Conference *"Buildings 2021"*, *Otto-von-Guericke-University*, Magdeburg

Seminars

2024	Nantes, Montpellier, Rennes, Lille, Strasbourg, Dijon, Leuven, Avignon, Clermont-Ferrand
2023	Bielefeld-Münster seminar, Orsay, Münster, Bristol
2022	Oxford, Lyon, Clermont-Ferrand, Münster, Dijon, Bordeaux
2021	Münster, Montpellier, Orsay, Séminaire Virtuel Francophone
2020	Paris, Montpellier

Teaching

Sept. 2023 - July 2024	**Teaching assistant (48h/year)**, *Université Paris-Saclay*, Orsay Tutorial of linear algebra for first and second year students in mathematics
Oct. 2021 - Feb. 2022	**Author of exercise sheets**, *WWU Münster*, Münster Writing the exercise sheets and their solutions for the course "geometric group theory" for third year students, taught by Linus Kramer.
Sept. 2018 - June 2020	**Teaching assistant (64h/year)**, *Université Paris Diderot*, Paris **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.

Attended conferences and research schools

Sept. 2024	**Buildings 2024**, Münster
Sept. 2024	**Probability, Dynamics and the Geometry of Groups**, Münster
Juil. 2024	*Équivalence orbitale*, Besse-en-Chandesse
Nov. 2023	**Bruhat-Tits buildings and applications**, Poitiers
Nov. 2023	**Forum for the young mathematicians**, Université Libre de Bruxelles
Sept. 2023	**Coarse Geometry and Dynamics**, ENS de Lyon
June 2023	**Groups and operator algebra**, IMO, Orsay
May 2023	**Measured Group Theory, Stochastic Processes on Groups and Borel Combinatorics**, Marseille

Mar. 2023	**Measured group theory**, CRM, Montréal
Feb. 2020	**Young Geometric Group Theory (YGGT) XI**, Münster
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

Responsabilities

Since 2018	**Proofreader for the editorial board of the association MATh.en.JEANS**
Since 2024	**Member of the parity committee of the Institute**, *IMO*, Orsay
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 - July 2020	**Member of the Ph.D students board**, *IMJ-PRG*, Paris

Talks

Jan. 2024	**"Maths en Herbes" Days**, *IHES*, Bures-sur-Yvette Short talk (25 min) presenting geometric group theory to undergraduate students
Feb. 2023	**Lightning talk at the YGGT**, *Münster* Short talk (5 min) introducing orbit equivalence to an audience of non-specialists
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	Conversational
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.