

# Pénélope Azuelos

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## Education

2022 – present	University of Bristol, UK <i>PhD in Mathematics (ongoing), supervised by Mark Hagen and Indira Chatterji</i>
2021 – 2022	École Normale Supérieure de Lyon, France <i>Master (M2) Mathématiques Avancées</i>
2017 – 2021	University of Bristol, UK <i>Master in Science in Mathematics (with first class honours)</i>

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## Papers

*On subgroups with narrow Schreier graphs*, Bulletin of the London Mathematical Society, 56(12): 3652-3668, 2024.  
*Perfect kernel and dynamics: from Bass-Serre theory to hyperbolic groups*, with Damien Gaboriau, Mathematische Annalen (online pre-publication), 2024.

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## Teaching

*Teaching assistant at the University of Bristol for the following courses:*

Spring 2024	Introduction to proofs and group theory MATH10010
Autumn 2023	Combinatorics MATH30030
Spring 2020	Introduction to geometry MATH20004

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## Talks

December 2024	Séminaire d'Algèbres d'Opérateurs, IMJ-PRG, Paris, “ <i>Comment repérer des fibres virtuelles</i> ”.
October 2024	Séminaire de l'équipe d'algèbre, topologie et géométrie, Laboratoire J.A. Dieudonné, Nice, “ <i>Comment trouver des fibres virtuelles</i> ”.
September 2024	Séminaire de Théorie Ergodique, Institut de recherche mathématique de Rennes, “ <i>L'espace des sous-groupes : noyau parfait, transitivité topologique et actions moyennables.</i> ”
September 2024	Algebra Geometry and Topology seminar, Heriot-Watt, “ <i>Narrow graphs and virtual fiber subgroups</i> ”.
September 2024	World of Geometric Group Theory (online conference), “ <i>A geometric criterion for detecting virtual fiber subgroups</i> ”.
May 2024	International Young Seminar on Bounded Cohomology and Simplicial Volume, “ <i>Topology and dynamics on the space of subgroups</i> ”.
March 2024	Seminar: GdT Action ! ENS de Lyon, “ <i>Un critère géométrique pour déterminer si un sous-groupe est une fibre virtuelle</i> ”.

March 2024	Conference: Rigidité en théorie des groupes : aspects géométriques et ergodiques, Université Paris-Saclay, <i>“Un critère géométrique pour déterminer si un sous-groupe est une fibre virtuelle”</i> .
February 2024	Cambridge Junior Geometry Seminar, <i>“Ends of groups and related invariants”</i> .
December 2023	Bristol Postgraduate Seminar, <i>“Is it trivial? And other difficult problems”</i> .
November 2023	Oxford Junior Topology and Group Theory Seminar, <i>“Topology and dynamics on the space of subgroups”</i> .
September 2023	Le séminaire virtuel francophone Groupes et Géométrie, <i>“Topologie et dynamique de l'espace des sous-groupes”</i> .
May 2023	Conference: Measured Group Theory, Stochastic Processes on Groups and Borel Combinatorics, CIRM Marseille, <i>“Perfect kernels and dynamics: from Bass-Serre theory to hyperbolic groups”</i> .
January 2023	Bristol Junior Geometry Seminar, <i>“Subgroup spaces and actions on trees”</i> .

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## Service

2023 – 2024	Co-organised the Bristol Junior Geometry Seminar.
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## Awards and funding

2024	Grant from the Académie d'Excellence “Systèmes Complexes” for a three month research visit to the LJAD in Nice, supervised by Indira Chatterji.
2022 – 2026	University of Bristol PhD scholarship.
2021 – 2022	MiLyon scholarship for an M2 masters program
2020	Summer research bursary funded by the Heilbronn Institute for Mathematical Research, supervised by Misha Rudnev.

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## Languages

English and French (native speaker)