

# 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”, to appear in Bull. Lond. Math. Soc.  
arXiv:2402.19000.  
“Perfect kernel and dynamics: from Bass-Serre theory to hyperbolic groups”, with Damien Gaboriau, to appear in Math. Ann. arXiv:2308.05954.

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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

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

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

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

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#### Languages

English and French (native speaker)