

CONTACT INFORMATION	douba@ihes.fr http://www.ihes.fr/~douba/
RESEARCH INTERESTS	Geometric group theory, low-dimensional topology, geometric topology, discrete subgroups of Lie groups, dynamics
ACADEMIC POSITIONS	Institut des Hautes Études Scientifiques Huawei Young Talents Program Fellow, September 2022 - August 2025
EDUCATION	McGill University Ph.D. in Mathematics, October 2022 - Supervisors: Piotr Przytycki, Dmitry Jakobson - Thesis title: <i>Unipotents and graph manifold groups</i> M.Sc. in Mathematics, October 2017 - Supervisor: Eyal Goren - Thesis title: <i>Towards a general theory of Weierstrass points on curves</i> B.Sc. in Honours Mathematics, June 2015 <i>First Class Honours in Mathematics</i>
PUBLICATIONS	S. Douba, B. Fléchettes, T. Weisman, and F. Zhu, <i>Cubulated hyperbolic groups admit Anosov representations</i> , to appear in <i>Geom. Topol.</i> N. Bogachev and S. Douba, <i>Geometric and arithmetic properties of Löbell polyhedra</i> , to appear in <i>Alg. Geom. Top.</i> S. Douba, <i>Systoles of hyperbolic hybrids</i> , <i>Tunis. J. Math.</i> (2025). S. Douba, <i>Proper CAT(0) actions of unipotent-free linear groups</i> , <i>J. Inst. Math. Jussieu</i> (2025). S. Douba and J. Huang, <i>Density of systoles of hyperbolic manifolds</i> , <i>C. R. Math.</i> (2024). N. Bogachev, S. Douba, and J. Raimbault, <i>Infinitely many commensurability classes of compact Coxeter polyhedra in $\mathbb{H}^4$ and $\mathbb{H}^5$</i> , <i>Adv. Math.</i> (2024). S. Douba, <i>A novel witness to incoherence of $\mathrm{SL}_5(\mathbb{Z})$</i> , <i>Proc. Am. Math. Soc.</i> (2024). S. Douba and K. Tsouvalas, <i>Anosov groups that are indiscrete in rank one</i> , <i>Int. Math. Res. Not.</i> (2023). S. Douba, <i>Virtually unipotent curves in some non-NPC graph manifolds</i> , <i>Internat. J. Algebra Comput.</i> (2023). S. Douba, <i>A hyperbolic lattice in each dimension with Zariski-dense surface subgroups</i> , <i>Proc. Am. Math. Soc.</i> (2023). S. Douba, <i>Thin right-angled Coxeter groups in some uniform arithmetic lattices</i> , <i>Bull. London Math. Soc.</i> (2022). S. Douba, <i>2-Systems of arcs on spheres with prescribed endpoints</i> , <i>Mich. Math. J.</i> (2021).
PREPRINTS	J. Audibert, S. Douba, G.-S. Lee, and L. Marquis, <i>Zariski-closures of linear reflection groups</i> , preprint. S. Douba, G.-S. Lee, L. Marquis, and L. Ruffoni, <i>Convex cocompact groups in real hyperbolic spaces with limit set a Pontryagin sphere</i> , submitted. S. Douba and K. Tsouvalas, <i>On regular subgroups of $\mathrm{SL}_3(\mathbb{R})$</i> , submitted.
TALKS (CONFERENCES & WORKSHOPS)	Sep 2025 <i>Hyperbolic manifolds in dimensions 4 (and more)</i> , Centre de recherches mathématiques, Montréal August 2025 <i>Algebraic and analytic methods in group theory</i> , IMPAN, Warsaw June 2025 <i>Swiss Knots 2025</i> , Université de Genève April 2025 <i>Higher-rank geometric structures</i> (mini-course), Institut Henri Poincaré, Paris Jan 2025 <i>Hyperbolic manifolds, their submanifolds and fundamental groups</i> , IMPA, Rio de Janeiro

	Dec	2024	<i>Arithmetic groups, hyperbolic manifolds, and computation</i> , Institut de Mathématiques de Bordeaux
	July	2024	<i>Joint Meeting AMS-UMI</i> , Palermo, special session on Anosov representations and higher Teichmüller theory
	Feb	2024	<i>Groups and Geometry in the South East</i> , University of Bristol
	June	2023	<i>Groups Around 3-Manifolds</i> , Centre de recherches mathématiques, Montréal
	June	2023	<i>CMS Summer Meeting: Session on Geometric Topology, Pseudo-Anosov Maps, and Complex Dynamics</i> , University of Ottawa
	March	2023	<i>The 56th Spring Topology and Dynamical Systems Conference</i> , Rhodes College
	Oct	2022	<i>Arbeitsgemeinschaft: Higher Rank Teichmüller Theory</i> , Mathematisches Forschungsinstitut Oberwolfach
	Sep	2022	<i>Workshop on Complex Geometry and Geometric Group Theory</i> , Karlsruher Institut für Technologie
	May	2022	<i>Colloque panquébécois de l'ISM XXIV</i>
	April	2022	<i>Joint Mathematics Meetings: AMS Special Session on Geometric Group Theory</i>
	August	2021	<i>World of Geometric Group Theory</i>
	May	2021	<i>The 54th Spring Topology and Dynamical Systems Conference</i> , Murray State University
TALKS (SEMINARS & COLLOQUIA)	Dec	2024	<i>Colloque de géométrie</i> , Université Paris-Est Créteil
	Nov	2024	<i>Geometry & Topology Seminar</i> , University of Warwick
	Nov	2024	<i>Topology Seminar</i> , University of Oxford
	Oct	2024	<i>Séminaire virtuel francophone groupes et géométrie</i> , Institut Fourier
	April	2024	<i>Séminaire géométrie et topologie</i> , IMJ-PRG
	March	2024	<i>Geometry & Topology</i> , Yale University
	March	2024	<i>Oberseminar Geometrie</i> , Université de Fribourg
	Nov	2023	<i>Geometry Seminar</i> , Max-Planck-Institut, Leipzig
	Nov	2023	<i>Geometric Group Theory Seminar</i> , University of Cambridge
	Oct	2023	<i>Dioscuri Seminar</i> , Jagiellonian University, Kraków
	Oct	2023	<i>Séminaire de théorie spectrale et géométrie</i> , Institut Fourier
	Sep	2023	<i>Séminaire groupes, algèbres, et algèbres d'opérateurs</i> , Laboratoire de mathématiques Blaise Pascal, Clermont-Ferrand
	May	2023	<i>Séminaire de géométrie et topologie de Marseille</i> , Institut de mathématiques de Marseille
	May	2023	<i>Séminaire géométrie dynamique</i> , Laboratoire Paul Painlevé, Lille
	March	2023	<i>Groups and Operator Algebras</i> , Université Paris-Saclay
	Jan	2023	<i>Groups and Operator Algebras</i> , Université Paris-Saclay
	Dec	2022	<i>Séminaire de théorie ergodique</i> , Institut de recherche mathématique de Rennes
	Dec	2021	<i>Groups and Operator Algebras</i> , Université Paris-Saclay
	Dec	2021	<i>Séminaire de géométrie topologie dynamique</i> , Université Paris-Saclay
	Nov	2021	<i>Junior Geometry Seminar</i> , University of Cambridge
	Nov	2021	<i>Group Theory Afternoon</i> , École normale supérieure (Paris)
	Oct	2021	<i>Junior Topology and Group Theory Seminar</i> , University of Oxford
	Oct	2021	<i>Geometry/Topology Seminar</i> , Rutgers University–New Brunswick
	June	2021	<i>Dynamics and Group Geometry Early Researchers Seminar</i> , University of Warwick
	May	2021	<i>Geometric Group Theory Seminar</i> , University of Cambridge
	February	2021	<i>Topology Seminar</i> , University of Wisconsin-Milwaukee
	February	2021	<i>Club Mathématique</i> , Université de Sherbrooke
	November	2020	<i>Bristol Junior Geometry Seminar</i> , University of Bristol
	July	2020	<i>Trends in Low Dimensional Topology</i>
	March	2020	<i>Dynamics, Geometry, and Groups</i> , Queen's University

TEACHING AND MARKING	Fall	2020	Teaching Assistant, Algebra I, McGill University
	Fall	2019	Marker, Euclidean Geometry, McGill University
	Winter	2019	Teaching Assistant, Analysis II, McGill University
	Fall	2018	Teaching Assistant, Algebra I, McGill University
	Fall	2018	Marker, Euclidean Geometry, McGill University
	Winter	2018	Teaching Assistant, Calculus I, McGill University
	Winter	2017	Teaching Assistant, Calculus I, McGill University
	Fall	2016	Teaching Assistant, Analysis I, McGill University
	Fall	2016	Marker, Honours Algebra III, McGill University
	Winter	2016	Teaching Assistant, Calculus II, McGill University
	Fall	2015	Teaching Assistant, Analysis I, McGill University
MENTORING	Winter	2019	McGill Directed Reading Program, geometry of the hyperbolic plane
HONOURS AND AWARDS	2022		Carl Herz Prize (ISM)
	2020		Alexis D. and W. Charles Pelletier Fellowship in Mathematics
	2018–2020		ISM Graduate Scholarship
	2014, 2015		NSERC Undergraduate Student Research Award
	2010–2011		Sheila Baillie Scholarship
TRAVEL	Jan.–March	2024	Jagiellonian University, Kraków, visitor
	April–July	2022	Laboratoire de mathématiques d’Orsay, visitor
	Sept.–Dec.	2021	Laboratoire de mathématiques d’Orsay, visitor
CONFERENCES AND SCHOOLS	April–July	2024	<i>Group Actions and Rigidity: Around the Zimmer Program</i> , Institut Henri Poincaré
	April–July	2022	<i>Hyperbolicity, Self-Similarity, and Groups Acting on Fractals</i> , Institut Henri Poincaré
	July	2021	<i>Young Geometric Group Theory</i> , Newcastle University
	January	2021	<i>Topics at the Interface of Low Dimensional Group Actions and Geometric Structures</i> , Institute for Mathematical Sciences, National University of Singapore
	August–December	2020	<i>Random and Arithmetic Structures in Topology</i> , MSRI
	Feb.	2020	<i>Young Geometric Group Theory</i> , Saint-Jacut-de-la-Mer, France
	July	2019	<i>Aspects of Geometric Group Theory</i> , IHÉS
	July	2019	<i>Young Geometric Group Theory</i> , Universidad del País Vasco
	May	2019	<i>Simons Semester on Geometric and Analytic Group Theory</i> , IMPAN
	April	2019	<i>Workshop on the Geometry of Teichmüller Spaces</i> , Simons Center
	Nov.	2018	<i>2018 Fields Medal Symposium in honour of Maryam Mirzakhani</i> , the Fields Institute
	August	2018	<i>Workshop on Geometry of Teichmüller Space</i> , the Fields Institute
	August	2018	<i>Summer School on Teichmüller Theory and its Connections to Geometry, Topology and Dynamics</i> , the Fields Institute
ORGANIZATION	Apr.	2025	<i>Young Geometric Group Theory XIII</i> , University of Copenhagen
	Feb.	2023	<i>Reflection Groups</i> , mini-workshop, IHÉS
	June	2021	<i>Geometric Group Theory without Boundaries II</i> , virtual summer school
	July	2020	<i>Geometric Group Theory without Boundaries</i> , virtual summer school
	2018–2020		<i>Mathematics and Statistics Graduate Student Seminar</i> , McGill University
	2018–2021		<i>Geometric Group Theory Seminar</i> , McGill University
	Fall	2018	Reading course on ergodic theory, McGill University