

Eduardo Oregón-Reyes

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Education

- 2018 - present *PhD in Mathematics*, University of California Berkeley.
Advisor: Ian Agol.
- 2017-2018 *MSc in Mathematics*, Pontifical Catholic University of Chile (PUC).
Advisor: Jairo Bochi.
- 2013-2016 *BSc in Mathematics*, Pontifical Catholic University of Chile (PUC).

Prizes and Scholarships

- Fall 2022 Graduate Student Researcher, UC Berkeley.
- Summer 2021 Math Department Grant Award, UC Berkeley.
- Fall 2019 Graduate Student Researcher, UC Berkeley.
- 2017 Jorge Billeke award, Chilean Mathematical Society.
- 2017-2018 “Beca CONICYT” Scholarship for Master studies, Chilean government.

Scientific Work

6. *Manhattan geodesics and the boundary of the space of metric structures on hyperbolic groups* (with Stephen Cantrell). Preprint (2022), arXiv:2210.07136.
5. *The space of metric structures on hyperbolic groups*. Journal of the London Mathematical Society (to appear), arXiv:2204.12545.
4. *On cubulated relatively hyperbolic groups*. Geometry & Topology (to appear), arXiv:2003.12702.
3. *A new inequality about matrix products and a Berger-Wang formula*. Journal de l'École polytechnique - Mathématiques, **7**, 185-200 (2020).
2. *The avalanche principle and negative curvature*. Mathematische Zeitschrift, **294**, 1397–1412 (2020).
1. *Properties of sets of isometries of Gromov hyperbolic spaces*. Groups, Geometry, and Dynamics, **12**(3), 889-910 (2018).

Invited Talks

- Dec 1 2022 Princeton Topology Seminar, *The space of metric structures on hyperbolic groups.*
- Nov 17 2022 UC Davis Geometry/Topology Seminar, *The space of metric structures on hyperbolic groups.*
- Nov 6 2022 Workshop in Dynamical Systems and Related Topics, Penn State, *Continuity of Bowen-Margulis measures for hyperbolic groups.*
- Aug 22 2022 PUC Dynamical Day, *Continuity of Bowen-Margulis measures for hyperbolic groups.*
- Apr 8 2022 Special Session on Geometric Group Theory, JMM, Online, *Cubulated relatively hyperbolic groups.*
- Apr 7 2022 ILAS Special Session on Matrix Analysis and Application, JMM, Online, *Matrix products inequalities, the Berger-Wang identity, and non-positive curvature.*
- Jun 21-25 2021 GGTwB II, Online, Minicourse, *Cubulated groups and virtual specialness.*
- May 19 2021 Matrix Equations, Matrix Inequalities, and Applications Session, SIAM-LA, Online, *Matrix products inequalities, the Berger-Wang identity, and non-positive curvature.*
- May 13 2021 GGT Session, STDC, *Cubulated relatively hyperbolic groups and virtual specialness.*
- Mar 24 2021 McGill GGT Seminar, *Cubulated relatively hyperbolic groups and virtual specialness.*
- Feb 23 2021 Yale Geometry and Topology Seminar, *Cubulated relatively hyperbolic groups and virtual specialness.*
- Sep 21 2020 UNR Matrix seminar, *Matrix products inequalities, the Berger-Wang identity, and non-positive curvature.*
- Jul 1 2019 PUC Dynamical Systems Seminar, *The Avalanche Principle and negative curvature.*
- Jun 28 2019 PUCV Dynamical Systems Seminar, *The Avalanche Principle and negative curvature.*

Selected Meetings Attended

- 3-6 Nov 2022 Workshop in Dynamical Systems and Related Topics. Penn State, US.
- 5-9 Sep 2022 Workshop: Modern advances in geometric group theory. University of Manchester, UK.
- 6-9 Apr 2022 Joint Mathematics Meetings. Online.
- 25-27 Feb 2022 Texas Geometry and Topology Conference. UT Dallas, US.
- 21 Jun-2 Jul 2021 School: Geometric Group Theory without Boundaries. Online.
- 17-21 May 2021 SIAM Conference on Applied Linear Algebra. Online.
- 12-15 May 2021 Spring Topology and Dynamical Systems Conference. Online.
- 6-10 Jul 2020 Topology Students Workshop. Online.
- 24-28 Feb 2020 Workshop: Young Geometric Group Theory. Saint-Jacut-de-la-Mer, France.
- 27-30 Aug 2019 School: Current Progress in Low Dimensions. Centre de Recherches Mathématiques, Canada.

Service

- 2021 Served as a referee for publication.
- Fall 2021-Fall 2022 Coorganizer of the student 3-manifold seminar, UC Berkeley.
- Dec 2017 Organizing committee for the First Conference of math graduate students of Chile (PostMat), UCH, USACH, and PUC.
- 2017-Spring 2018 Organizer of the graduate student seminar, PUC.

Activities related to Mathematical Olympiads

- 2016-2018 Instructor of the Chilean Team for International Math Olympiads (International, Cono Sur, and Iberoamerican).
- Oct 2017 Grader for the Chilean Math Olympiad.
- Sep 2017 Deputy Leader of the Chilean Team at the Iberoamerican Math Olympiad, Argentina.
- Aug 2017 Deputy Leader of the Chilean Team at the Cono Sur Math Olympiad, Ecuador.
- Oct 2016 Grader for the Chilean Mathematical Olympiad.
- Sep 2016 Grader for the Iberoamerican Mathematical Olympiad, Chile.

Activities related to Outreach

- Nov 2018 Volunteer for Julia Robinson Mathematics Festival (JRMF).
- Jul 2017 *Double Pendulum*. Stand at Math Festival, Vicuña.
- Jun 2017 *Mathematical Research Workshop*. Talk for Teachers at Explora Program, CONICYT, Santiago.
- Mar 2017 *Fractals: The beautiful representation of Chaos*. Exhibition Monitor for Oh! Santiago event, PUC.
- Mar 2016 *II Math Camp* (CaMat). Member of Academic Team, Santiago.

Teaching

Graduate Student Instructor (T.A.), UC Berkeley

- Spring 2022 Math 55, Discrete Mathematics.
- Fall 2021 Math 16A, Analytic Geometry and Calculus.
- Spring 2021 Math 55, Discrete Mathematics.
- Fall 2020 Math 1B, Calculus.
- Spring 2020 Math 55, Discrete Mathematics.
- Spring 2019 Math 1B, Calculus.
- Fall 2018 Math 1A, Calculus.

Tutoring, PUC

- 2017 - Spring 2018 Instructor of Mathematics Research Workshop (TIM). Course for Talented High School Students. Mathematics Department.
- 2017 Tutor of Mathematical Reasoning Program (PRM). Lectures given to High School Teachers of Primary Instruction Society (SIP). Mathematics Department.

T.A., PUC

- 2014-2017 T.A. for several courses in the Mathematics Department, including *Pre-Calculus*, *Calculus*, *Number Theory*, *Group and Ring Theory*, *Dynamical Systems*, *Real Analysis*, *Algebraic Geometry*, *Complex Variables*.