

CURRICULUM VITAE

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Institute of Advanced Study
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Appointed positions

- Gibbs Assistant Professor, Yale University
July 2019 - June 2022
- Member, Institute for Advanced Study
September 2018 - July 2019

Education

- Ph.D. Mathematics: University of California at Berkeley
August 2012-May 2018
Advisor: Ian Agol.
- Summer Program: Instituto Nacional de Matemática Pura e Aplicada
2008, 2009, 2010, 2011.
- M.S. Mathematics: Instituto de Matemática y Ciencias Afines (ABD)
2010-2011.
- B.S. Mathematics: Pontificia Universidad Católica del Perú
2007-2011.

Research Interests

- 3-manifold topology and hyperbolic geometry.

Preprints and Publications

- Additive continuity of the renormalized volume under geometric limits arXiv:1708.04009.
Preprint (Submitted).
- Continuity of the renormalized volume under geometric limits arXiv:1605.07986.
Preprint.
- Local convexity of renormalized volume for rank-1 cusped manifolds arXiv:1505.00479.
Preprint (To appear in Mathematical Research Letters).
- Hyperbolic groups with few linear representations (A non-published argument of William Thurston).

Teaching Experience

- Summer 2018: Mentor, UC Berkeley Geometry and Topology RTG Summer Research Program for Undergraduates.
Fundamental Domains of Hyperbolic 3-manifolds.

- Fall 2017: Graduate student instructor, University of California, Berkeley
Analytic Geometry and Calculus (Math 16A).
- Fall 2016: Graduate student instructor, University of California, Berkeley
Methods of Mathematics: Calculus, Statistics, and Combinatorics (Math 10A).
- Fall 2011: Pontificia Universidad Católica del Perú, Instructor
EST219 Probabilidades (Probability).
- Spring 2011: Pontificia Universidad Católica del Perú, Instructor
EST211 Probabilidad y Estadística 1 (Probability & Statistics 1).
- Fall 2010: Pontificia Universidad Católica del Perú, Instructor
EST219 Probabilidades (Probability), MAT149 Cálculo 4 (Calculus 4), MAT117 Matemáticas Básicas (Basic Mathematics).
- Spring 2010: Pontificia Universidad Católica del Perú, Instructor
EST219 Probabilidades (Probability), EST211 Probabilidad y Estadística 1 (Probability & Statistics 1), MAT129 Cálculo 2 (Calculus 2), MAT119 Cálculo 1 (Calculus 4), MAT117 Matemáticas Básicas (Basic Mathematics).

Research Positions

- Graduate Student Research Assistant, UC Berkeley
Fall 2014 - Spring 2015, Spring 2016 - Summer 2016.
- Visiting Ph.D. student, Institute for Advanced Study
Fall 2015 - Spring 2016.
- Visiting Ph.D. student, Instituto Nacional de Matematica Pura e Aplicada
July 2016, July 2015, June-August 2013.

Awards

- Outstanding Graduate Student Instructor Award 2016-2017.
- Berkeley Fellowship for outstanding doctoral applicants 2012 (2 years duration).
- Beca de Estudios del Proyecto IMCA del Convenio Brasil-Perú 2011 (*Scholarship for the IMCA Project of the Brazil-Perú Covenant*).
- 1st place Laurent Schwartz Mathematical Olympiad 2011.
- Proyecto de Apoyo a la Iniciación Científica (PAIN) 2010 (*Project to Support Scientific Initiation*).
- Silver Medal, Asian Pacific Mathematics Olympiad 2006.
- Silver Medal, Olimpiada Iberoamericana de Matemática 2006.
- Honorable Mention, International Math Olympiad 2006.
- Gold Medal, Olimpiada del Cono sur 2006.
- Silver Medal, Olimpiada Iberoamericana de Matemática 2005.
- Bronze Medal, International Math Olympiad 2005.
- Silver Medal, Olimpiada Rioplatense de Matemática 2003

Seminar Talks

- 2018-04-03 Geometry/Topology seminar, UC Davis
On Renormalized volume
- 2018-02-16 Geometry and Topology seminar, Caltech
Minimizing Renormalized Volume.
- 2017-10-31 3-manifold seminar, University of California, Berkeley

Schwarzian derivatives, projective structures, and the Weil-Petersson gradient flow for renormalized volume (a paper by Bridgeman, Brock and Bromberg).

- 2017-10-12 Geometry/Topology seminar, Boston College
Minimizing Renormalized Volume.
- 2016-11-22 Geometric Analysis seminar, University of Chicago
Renormalized Volume.
- 2016-11-01 3-manifold seminar, University of California, Berkeley
Renormalized Volume (global minimums).
- 2015-04-07 3-manifold seminar, University of California, Berkeley
Local convexity of the renormalized volume for acylindrical convex co-compact hyperbolic 3-manifolds at the geodesic class.
- 2014-10-13 3-manifold seminar, University of California, Berkeley
On the renormalized volume of hyperbolic 3-manifolds (a paper by Kirill Krasnov and Jean-Marc Schlenker).
- 2014-04-24 3-manifold seminar, University of California, Berkeley
Heegaard splittings by minimal surfaces (a paper by Daniel Ketover).

Participation in Scientific Conferences

- August 14th-16th 2017: Summer 2017 Wasatch Topology Conference *Local and global minimum of Renormalized Volume.*
- August 2010: Colloquium of the Peruvian Mathematical Society - Poster *Teorema del encaje de Whitney (On Whitney's embedding theorem).*