

# Curriculum Vitae

Anibal Velozo

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## PERSONAL INFORMATION

Name: Anibal Velozo

Date of birth: February 4th, 1992

Nationality: Chilean

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Languages: Spanish (native), English.

## EMPLOYMENT

2018–present **Gibbs Assistant Professor** at Yale University.

## EDUCATION

2013–18 **PhD in Mathematics** at Princeton University.

- Advisor: Gang Tian.

2011–13 **Master of Science in Mathematics** at Pontifical Catholic University of Chile (PUC).

- Advisor: Godofredo Iommi

2010–13 **Bachelor in Mathematics** at Pontifical Catholic University of Chile (PUC).

- Advisor: Mario Ponce

## RESEARCH INTERESTS

Dynamical systems, Thermodynamic formalism, Negatively curved geometry.

## SCIENTIFIC WORK

1. *Entropy in the cusp and phase transitions for geodesic flows* (joint with G. Iommi and F. Riquelme). Israel Journal of Mathematics, Vol. 225 (2018), p. 609–659.
2. *Escape of mass and entropy for geodesic flows* (joint with F. Riquelme). Ergodic Theory and Dynamical Systems, 39(2), 446–473.
3. *Upper semi-continuity of entropy in non-compact settings* (joint with G. Iommi and M. Todd). To appear in Math. Res. Lett.
4. *Phase transitions for geodesic flows and the geometric potential*, arXiv:1704.02562, submitted.
5. *Rate distortion theory, metric mean dimension and measure theoretic entropy* (joint with R. Velozo), arXiv:1707.05762, submitted.
6. *Thermodynamic formalism and the entropy at infinity of the geodesic flow*, arXiv:1711.06796, submitted.
7. *Pressure, Poincaré series and box dimension of the boundary* (joint with G. Iommi). arXiv:1808.00933, submitted.
8. *The space of invariant measures for countable Markov shifts* (joint with G. Iommi). arXiv:1901.07972, submitted.

## TEACHING AND OUTREACH

### Outreach:

- 2012 Depute Leader of the Chilean Team on the LIII International Mathematical Olympiad, Argentina.
- 2010- Integrant of the Academic Committee in charge of preparing and grading tests for the Chilean Mathematical Olympiad. Trainer of chilean teams that participate in international mathematical olympiads.

### Teaching

- Jan 2015 Ordinary Differential Equations for Engineering School, PUC.
- Spring 2015-16 Multivariable calculus, Princeton University.
- Fall 2017-18 Calculus I, Princeton University.
- Fall 2018-19 Math 120: Multivariable calculus, Yale University.
- Spring 2018-10 Math 225: Linear algebra & Matrix Theory, Yale University.

## FELLOWSHIPS AND ACADEMIC HONORS

- 2017 Graduate Student Teaching Award, Graduate School, Princeton University.
  - 2016 Graduate Student Teaching Award, Department of Mathematics, Princeton University.
  - 2013-17 Scholarship for studying PhD in Mathematics, Department of Mathematics, Princeton University.
  - 2010-13 Scholarship Rolando Chuaqui (best student of generation), Department of Mathematics, PUC.
  - 2009 Perfect Score on the Chilean equivalent of the SAT, Mathematic PSU Test.
- Highschool Mathematical Olympiads
- *International Mathematical Olympiad:*  
Silver medal (Spain 2008), Silver medal (Germany 2009).
  - *Iberoamerican Mathematical Olympiad:*  
Silver medal (Brazil 2008), Bronze medal (Mexico 2009).
  - *Southern Cone Mathematical Olympiad:* Gold medal (Chile 2008).
  - *Chilean Mathematical Olympiad:* Gold medal (2007, 2008, 2009).

## TALKS AND ORGANIZED SEMINARS

- 2016-17 Organizer of Informal Topology Seminar at Princeton University.
- 2014-15 Organizer of Graduate Student Seminar (GSS) at Princeton University.
- 2014-15 Organizer of Informal Symplectic Geometry Seminar at Princeton University.
- June 2017 Entropy theory for geodesic flows, PUC (Chile).
- July 2018 The space of invariant probability measures of a countable Markov shift, PUCV.
- September 2018 Thermodynamic formalism of the geodesic flow in negatively curved manifolds, Yale University.
- February 2019 Regularity of the entropy map for (some) non-compact spaces, University of Chicago.
- March 2019 The entropy at infinity of some (non-compact) dynamical systems, Penn state University.