

CURRÍCULUM VITAE

I. PERSONAL INFORMATION

Name: Paulina Alejandra Cecchi Bernales.
Date of Birth: January 6th, 1986
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Current position: Postdoc at Center for Mathematical Modeling, Universidad de Chile.

II. EDUCATIONAL BACKGROUND

Postgraduate Studies:

March 2015 - June 2019 PhD in Mathematics, Universidad de Santiago de Chile/ PhD in Informatics, Université Paris Diderot-Paris VII.
March 2011 - December 2013 MSc in Mathematical Sciences, Universidad de Chile.

Undergraduate Studies:

August 2006 - November 2010 Mechanical Engineering, Universidad de Chile.
March 2004 - July 2006 Basic Program on Engineering and Sciences, Universidad de Chile.

High School:

1992-2003 Colegio Raimapu - Tierra Florida, Santiago.

Teaching:

August - December 2020	Part-time professor of Introduction to Algebra, Universidad de Chile, first semester of Basic Program on Engineering and Sciences.
March - August 2020	Part-time professor of Introduction to Algebra, Universidad de Chile, first semester of Basic Program on Engineering and Sciences.
March - August 2016	Part-time professor of Introduction to Algebra, Universidad de Santiago de Chile, first semester of Civil Engineering.
August - November 2014	Part-time professor of Integral Calculus, Universidad Técnica Federico Santa María, second semester of Civil Engineering.
September 2014	Assistant teacher in intensive mathematics course for PhD Program in Complexity Sciences, Universidad del Desarrollo.
March - July 2014	Part-time professor of Calculus, first and third semester of Economics and Civil Engineering, Universidad Adolfo Ibáñez.
August - December 2009	Assistant teacher of Electromagnetism, fifth semester of Basic Program on Engineering and Sciences, Universidad de Chile.
March - July 2009	Assistant teacher of Thermodynamics, seventh semester of Mechanical Engineering, Universidad de Chile.
August - December 2008	Assistant teacher of Heat Transfer, eighth semester of Mechanical Engineering, Universidad de Chile.
March - July 2008	Assistant teacher of Mechanics, third semester of Basic Program on Engineering and Sciences, Universidad de Chile.

- July - December 2007** Assistant teacher of Kinematics and Dynamics of Mechanisms, seventh semester of Mechanical Engineering, Universidad de Chile.
- March - July 2006** Assistant teacher of Mechanics, third semester of Basic Program on Engineering and Sciences, Universidad de Chile.
- January 2006** Assistant teacher of Experimental physics, Summer School of Outreach Program for high-school students, Universidad de Chile.

III. TALKS

- January 2021** *Superlinear factor complexity and invariant measures on subshifts*, Expanding Dynamics VIII (Online seminar).
- January 2021** *Strong orbit equivalence and complexity in subshifts*, Algebraic and combinatorial invariants of subshifts and tilings, CIRM (Online conference).
- December 2020** *Orbit equivalence and factor complexity in subshifts*, Seminario conjunto de Dinámica Porteña/Sistemas Dinámicos de Santiago (Online seminar).
- November 2020** *Orbit equivalence, dimension group and factor complexity in subshifts*, Seminario de Grupos, Universidad de Santiago de Chile (Online seminar).
- November 2019** *Balance in symbolic systems*, French Latin-American Conference on New Trends in Applied Mathematics, Center for Mathematical Modeling, Universidad de Chile, Santiago.
- December 2018** *Balance and coboundaries in symbolic systems*, LXXXVII annual meeting of the Chilean Mathematical Society, Universidad de O'Higgins, Rancagua.
- November 2018** *Invariant measures, frequencies and symbolic discrepancy*, Opening meeting of the project CODYS, IRIF, Université Paris Diderot, Paris.

- July 2018** *Dimension group of dendric subshifts*, Dyadisc2: Workshop on the spectral analysis of subshifts, Université de Picardie Jules Verne, Amiens.
- July 2018** *Dendric words and dendric subshifts*, Séminaire CALIN, Université Paris-Nord, Paris.
- June 2018** *Coboundaries and balance in words*, Clousure meeting of the project Dyna3S, Université de Bordeaux, Bordeaux.
- April 2018** *Some interactions between symbolic dynamics and word combinatorics*, IRIF PhD seminar, Paris.
- January 2018** *Invariant measures for actions of congruent monotileable amenable groups*, Séminaire PADyque, Université de Picardie Jules Verne, Amiens.
- November 2017** *Invariant measures for actions of congruent monotileable amenable groups (short talk)*, Research school on Tilings and dynamical systems, CIRM, Marseille.
- February 2017** *Choquet simplices as sets of invariant measures of amenable group actions on the Cantor set*, Seminario Tartaglia, Universidad Autónoma de San Luis Potosí, San Luis Potosí.
- November 2013** *Spectrum of Furstenberg transformations using a Mourre estimation*, LXXXII annual meeting of the Chilean Mathematical Society, Olmué.

IV. LIST OF PUBLICATIONS

1. *Strong orbit equivalence and superlinear complexity*, with S. Donoso; Submitted to Israel Journal of Mathematics.
2. *On the dimension group of unimodular S -adic subshifts*, with V. Berthé, F. Durand, J. Leroy, D. Perrin and S. Petite; To appear in Monatshefte für Mathematik.
3. *Balancedness and coboundaries in symbolic systems*, with V. Berthé; Theoretical Computer Science (777), 2019.

4. *Invariant measures for actions of congruent monotileable amenable groups*, with M.I. Cortez; *Groups, Geometry and Dynamics* (13), 2019.

5. *Furstenberg transformations on cartesian products of infinite-dimensional tori*, with R. Tiedra de Aldecoa; *Potential Analysis* (44 N.1), 2016.

V. NON-ACADEMIC WORK EXPERIENCE

- September - November 2010** Part-time worker for Foundation for the Technological Transfer, Universidad de Chile.
- January 2009** Professional Practice III. Cooper National Corporation, Mine Chuquicamata.
- July - December 2008** Technical part-time worker for KOMATSU, in project for Mine Trucks Maintenance.
- January - February 2008** Professional Practice II. HISA, Hidráulica Industrial S.A., Joaçaba, Santa Catarina.
- January 2007** Professional Practice I. ASMAR, Shipyards and workshops of Chilean Army, Valparaíso.

VI. SCHOLARSHIPS

- March 2015 – June 2019** Scholarship from National Corporation for Technology and Science Research, for PhD Program in Mathematics at Universidad de Santiago de Chile/PhD in Informatics at Université Paris Diderot-Paris VII.
- March 2011 - December 2012** Scholarship from National Corporation for Technology and Science Research, for Master Program in Mathematical Sciences at Universidad de Chile.

VII. AWARDS

Honor of the Chilean Engineers Association to the best graduates, year 2010.