Dr. Italo Cipriano

Personal Data

Name:	Italo Cipriano
Place and Date of Birth:	Santiago, Chile | 5 May 1986
Address:	Santiago, Chile
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Nationality:	Chile / Italy

Work Experience

2022-2024	Modeling and pricing in the Chilean Bond Market, LVAindices.
2020-2022	Postdoc. Optimization for project management in underground mine planning, Postdoctoral fellowship, Universidad Adolfo Ibáñez - Chile. Project code: FONDEF ID19|10164.
2016-2022	Lecturer. Ordinary Differential equations, Calculus, Linear Algebra, Differentiation and Integration, Introduction to Algebra.
2018-2020	Postdoc. Dynamical Systems and Ergodic Theory, Postdoctoral fellowship, Pontifica Universidad Católica de Chile. Project code: CONICYT PIA ACT172001.
2017-2018	Researcher. Tailing Optimal Control and Supervision Through New Technologies. Project code: FONDEF IT16M10012.
2017-2018	Researcher. Developing of new technologies for early-warning systems of stability of tailing dams. Project code: FONDECYT 1161039.

Programming Skills

Advanced	Python, Pandas, R, Matlab, Sage
User	Java, Git, Slurm, Slack, Latex, DualSPHysics, DBeaver, AWS, CPLEX

Languages

English (proficient user), Italian (bilingual), Spanish (bilingual), German (A1)

Education

2015	Ph.D. in Mathematics (Thermodynamic Formalism) Warwick University, Coventry, UK
2011	Bachelor of Sciences in Engineering Mathematics (Equivalent to M.Sc) University of Chile, Santiago, Chile

Publications

1. I. Cipriano, "Entry time statistics to different shrinking sets," *Stochastics and Dynamics. Stoch. Dyn.*, vol. 17, no. 3, pp. 314–323, 2017.
2. I. Cipriano and M. Pollicott, "Stationary measures associated to analytic one dimensional iterated function schemes," *Mathematische Nachrichten*, vol. 291, no. 7, pp. 1049–1054, ,2018.
3. I. Cipriano and G. Iommi,"Time change for flows and thermodynamic formalism", *Nonlinearity*,2019.
4. I. Cipriano and N. Jurga, "Approximating integrals with respect to stationary probability measures of iterated function systems", *Ergodic Theory and Dynamical Systems*, 2020.
5. A. Hill, A. Brickey, I. Cipriano, M. Goycoolea and A. Newman, "Optimization Strategies for Resource-

Constrained Project Scheduling Problems in Underground Mining", *INFORMS Journal on Computing*, 2022.

Selected Talks

1. The University of Warwick, Thermodynamic Formalism: Ergodic Theory and Geometry, A workshop celebrating the 60th birthday of Mark Pollicott, 10-14 Jul 2019. "Approximating integrals with respect to stationary probability measures and applications."
2. CIRM - Luminy, Thermodynamic Formalism: Ergodic Theory and Validated Numerics, 8-12 Jul 2019. "Time change for flows."
3. University of Oxford, Young Research Meeting, 17 Aug 2015. "Large deviations."

Teaching

- Lecturer: *Ordinary Differential equations, Calculus, Linear Algebra, Differentiation and Integration, Introduction to Algebra.*
- Supervisions: *Advanced Linear Algebra, Vector Analysis, Analysis III, Algebra II and Metric Spaces.*
- Teaching assistant: *Functional Analysis, Calculus, Multivariate Calculus, Information Theory applied to statistics and codification, Information Theory, Single Variable Calculus, Optimization, Differentiation and Integration, Ordinary Differential equations, Financial Risk.*

Certifications

- Introduction to Financial Engineering and Risk Management Graphic. Columbia University, 2023.
- Practical Time Series Analysis. The State University of New York, 2019.
- The R Programming Environment. Johns Hopkins University, 2019.
- Algorithmic Toolbox. University of California, San Diego & Higher School of Economics, 2016.
- Machine Learning. Stanford University, 2016.

Awards,Fellowships,Scholarships

- ENRE Best Publication Award in Natural Resources, 2023.
- Postdoctoral fellowship, Research supported by National Commission for Scientific and Technological Research - Chile, School of Business, Universidad Adolfo Ibáñez - Chile, 2019.
- Postdoctoral fellowship, Research supported by National Commission for Scientific and Technological Research - Chile, Institute of Mathematics, Pontifica Universidad Católica de Chile, 2017.
- Graduate Scholarship, CONICYT - Chile, Studies supported by National Commission for Scientific and Technological Research - Chile, 2010.
- Outstanding student, Universidad de Chile, 2005.

Responsibilities, organiser, consulting

- 2020- , Reviewer American Mathematical Society, AMS.
- 2018-2020, Organizer Santiago Dynamical Systems Seminar.
- 19-21 Dec 2018, Co-organizer, Encuentro LXXXVII Chilean Mathematical Society, SOMACHI.
- 2016, Private consultant, R&V Ingenieros, Engineering. company with projects in soil mechanics, urbanisation and hydraulic engineering.

- 2016, Private consultant, Information security.

Others

- Best swimmer University of Chile, 2006.
- Best swimmer Región Metropolitana, Chile, 1999.
- Chilean national swimming team, 1998.
- Chilean national record swimming, 1998.