CV

General Information

Full Name   Nicanor Carrasco-Vargas

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Education

2014 - 2018

Bachelor in mathematics

🏛 University of Concepción, Chile

2020 - 2024

PhD in Mathematics

🏛 Pontifical Catholic University of Chile, Chile

- Supervised by Cristóbal Rojas and Sebastián Barbieri

Research

1. On the complexity of the Eulerian path problem for infinite graphs. Nicanor Carrasco-Vargas, Valentino Delle Rose, and Cristóbal Rojas. 2024.
2. Translation-like actions by $\mathbb{Z}$, the subgroup membership problem, and Medvedev degrees of effective subshifts. Nicanor Carrasco-Vargas. *Groups, Geometry, and Dynamics*, 2024.
3. Infinite Eulerian trails are computable on graphs with vertices of infinite degree. Nicanor Carrasco-Vargas. 2023. Accepted in Computability.
4. Effective dynamical systems beyond dimension zero and factors of SFTs. Sebastián Barbieri, Nicanor Carrasco-Vargas, and Cristóbal Rojas. 2024. Accepted in Ergodic Theory and Dynamical Systems
5. On a Rice theorem for dynamical properties of SFTs on groups. Nicanor Carrasco-Vargas. 2024.
6. Medvedev degrees of subshifts on groups. Sebastián Barbieri, and Nicanor Carrasco-Vargas. 2024.

Talks and posters

1. Medvedev degrees of effective subshifts on groups. Nicanor Carrasco-Vargas. Mar 2023. Journées annuelles SDA2, Toulouse, France
2. Medvedev degrees and subshifts. Nicanor Carrasco-Vargas. Jul 2023. 16th International Conference on Computability, Complexity and Randomness. Kochel, Germany
3. Un invariante para subshifts de naturaleza recursiva. Nicanor Carrasco-Vargas. Sep 2023. Seminario de Sistemas Dinámicos de Santiago, Santiago, Chile
4. Un invariante para subshifts de naturaleza recursiva. Nicanor Carrasco-Vargas. Dec 2023. Encuentro sociedad matemática de chile 2023, Santiago, Chile
5. Are all dynamical properties of $\mathbb{Z}^2$-SFTs undecidable?. Nicanor Carrasco-Vargas. Feb 2024. Poster for thematic month at CIRM, France: Discrete Mathematics & Computer Science: Groups, Dynamics, Complexity, Words.
6. A recursion-theoretic invariant for subshifts. Nicanor Carrasco-Vargas. Feb 2024. Talk for thematic month at CIRM, France: Discrete Mathematics & Computer Science: Groups, Dynamics, Complexity, Words.
7. Tilings of the plane: aperiodicity, undecidability, and a Rice theorem. Nicanor Carrasco-Vargas. May 2024. Talk for CENIA seminar
8. Tilings of the plane: aperiodicity, undecidability, and a Rice theorem. Nicanor Carrasco-Vargas. May 2024. Talk for postgraduate school UFRO - Lican Ray