CV | Nicanor Carrasco-Vargas

General Information

- **Name: Nicanor Carrasco-Vargas**
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Education

- **PhD in Mathematics. Pontifical Catholic University of Chile, Chile. 2020 - 2024. Supervised by Cristóbal Rojas and Sebastián Barbieri.**
- **Bachelor in mathematics. University of Concepción, Chile. 2014 - 2018.**

Research

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

Talks and posters

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