

Silvère Gangloff

Post-doctoral researcher

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Education

- ▷ 2011-2015 : **ENS Paris**. Master in fundamental mathematics (Dynamical systems). Agrégation de mathématiques.
- ▷ 2015-2018 : **PhD**, in Computer science and Mathematics, at University of Aix-Marseille, titled 'Computability of the growth-type invariants of subshifts of finite type under dynamical restrictions', under the supervision of Mathieu Sablik (Toulouse) and Guillaume Theyssier (Marseille). The manuscript can be found *here*.
- ▷ 2015-2018 : **Post-doctoral researcher** at the LIP, ENS Lyon. Team MC2, ANR Project CoCoGro [ref: Nathalie Aubrun and Michael Rao]
- ▷ Sept - Nov 2015 & Nov 2018: Invited researcher at Santiago, Chile, CMM.

Research interests

Statistical mechanics, entropy, lattice models. Dynamical systems, combinatorics, topology and computability (PhD thesis). Information theory. Asymmetrical information game theory (master thesis). Computational neuroscience and cellular biology (licence). Phenomenology.

Publications

- ▷ Effect of quantified irreducibility on the computability of subshift entropy (28 pages, **accepted** in Discrete and Continuous dynamical systems).
- ▷ Block gluing intensity of bidimensional SFT - computability of the entropy and periodic points (80 pages, **submitted** to Journal d'Analyse mathématiques).
- ▷ A characterization of entropy dimensions of tridimensional subshifts of finite type (78 pages, **submitted** to Bulletin de la SMF).
- ▷ Simulation of minimal effective dynamical systems on the Cantor sets by minimal tridimensional subshifts of finite type (49 pages, preprint).

Teaching

- ▷ Writer for teaching books (HK editions).
- ▷ Oral interrogations for preparatory school students [2012-2013: Lycée Louis-le-grand, Paris, and 2014-2015 Lycée Bellevue, Toulouse].
- ▷ **Tutorials** (mathematics) at the university (first and second year students) : Graph theory, Analysis, Algebra, during Phd. 2018-2019: Tutorials on complexity theory.

Talks

- ▷ ECJIM (school for young researcher organized by GdrIM CNRS), Orléans, March 2015.
- ▷ ECJIM (school for young researcher organized by GdrIM CNRS), Strasbourg, April 2016.
- ▷ Computability, Randomness and applications, CIRM, Marseille, June 2016.
- ▷ Combinatorics, Automata and Number Theory, CIRM, Marseille, December 2016.
- ▷ Seminar of MC2 team, LIP, ENS Lyon, February 2017.
- ▷ International Research school on Aperiodicity and Hierarchical structures in tilings, Lyon 2017.
- ▷ Seminar of MC2 team, LIP, ENS Lyon, May 2018.
- ▷ Journées montoises d'informatique théorique, Bordeaux, September 2018.

Organization

- ▷ Organization of a workshop: Algorithmic questions in dynamical systems, Toulouse, March 2018.
- ▷ Organization of a work group on 'Exact computations of entropy of bidimensional subshifts of finite type', at LIP, ENS Lyon.

Programming

Python, \LaTeX , HTML.

Languages

- ▷ French (mother tongue), English (fluent), Spanish (school), Korean (intermediate), Chinese (basic knowledge).