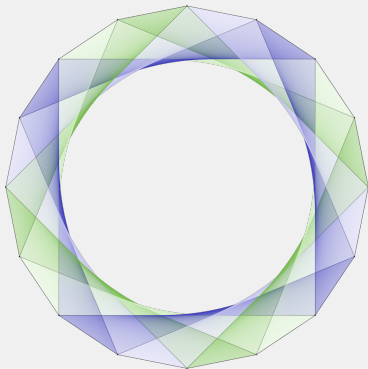


Matthieu JOSEPH



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Languages

Français ●●●●●

English ●●●●○

Deutsch ●●●●○

Main research areas:

Ergodic theory, Quantitative measured theory, IRS, URS, etc.

Education:

- 2019-... PhD student in mathematics under the supervision of Damien Gaboriau, *UMPA, ENS de Lyon*.
- 2019 Visiting scholar during one semester in *Indiana University, USA*, under the supervision of Russell Lyons.
- 2015-2019 Bachelor and Master in mathematics, *ENS de Lyon*.
- 2012-2015 Classe préparatoire MPSI-MP*, *Lycée La Martinière Monplaisir, Lyon*.
Three-year highly selective classes in math and physics to prepare for the competitive exams to the french "Grandes Ecoles".
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Publications:

- 2017 Products of snowflaked Euclidean lines are not minimal for looking down (with T.Rajala), *Anal. Geom. Metr. Spaces*, 5 (2017), no. 1, 78-97.

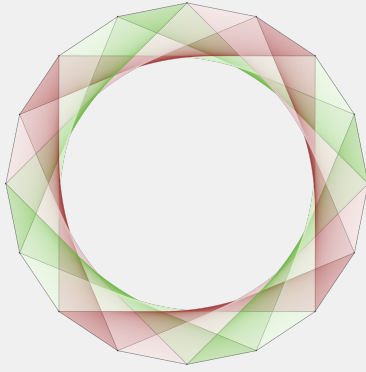
This work was realized during a summer research project in Jyväskylä in Finland, under the supervision of T. Rajala.

Preprints:

- 2021 Continuum of allosteric actions for non-amenable surface groups, *arXiv*.
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Ongoing works:

- 2021+ Isometric orbit equivalence for pmp actions of marked groups.
- 2021+ Quantitative full groups (with A. Carderi, F. Le Maître and R. Tessera).
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Selected talks:

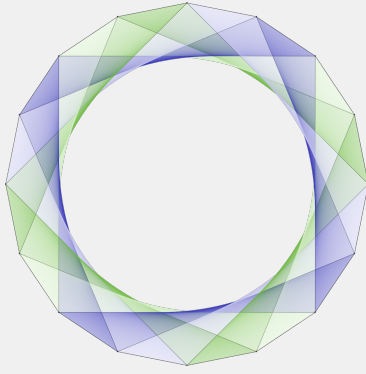
- Jun. 2021 Actions of surface groups with trivial URS but non-trivial IRS.
Meeting ANR AODynG, Paris 7
- Feb. 2021 Rigidity and flexibility phenomenons for isometric orbit equivalence.
2 February : UCSD group actions seminar, UCSD, USA
9 February : Working group "Actions!", ENS de Lyon
- Apr. 2020 An approach of percolation with operator theory, after Tom Hutchcroft.
Working group "Actions!", ENS de Lyon
- Apr. 2020 Towards the indistinguishability theorem of Lyons-Schramm : an orbit equivalence point of view, and the mass transport principle.
Working group "Actions!", ENS de Lyon
- Jan. 2020 L^p -orbit equivalence for \mathbb{Z} -actions.
Working group "Actions!", ENS de Lyon
- Feb. 2019 Integrable and bounded orbit equivalence.
Geometry Seminar, Indiana University, USA
- Dec. 2018 Integrable orbit equivalence for groups with polynomial growth, after T. Austin.
Working group "Actions!", ENS de Lyon
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Teaching:

- 2019-2021 Exercises sessions at the ENS de Lyon, *Complex, analysis, Integration and Probability, Differentiation geometry* ($\approx 192h$).
- 2015-2019 Oral examiner in Classe Préparatoire, *Lycée la Martinière Monplaisir & Lycée du Parc* ($\approx 200h$).
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Professional activities:

- 2020-2022 Representative of the PhD student in the Laboratory council at UMPA.
- 2016-2020 Editor in chief of the JME (Journal de Mathématiques des Élèves de l'ENS de Lyon)
A mathematical journal for students, whose articles are written by students.
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Diffusion articles and talks:

- Sep. 2018 Throwing dice, random processes and parthenogenesis.
Talk at the "chill seminar" in the MMI (Maison des mathématiques et de l'Informatique) about Bernoulli processes and the Meshalking isomorphism example.
- Nov. 2018 Black & White.
Talk at the "chill seminar" in the MMI (Maison des Mathématiques et de l'Informatique), about local-global convergence of graphs.
- Apr. 2018 Antoine Chambert-Loir at Goutelas, *JME, Hors-série*.
Report of the Chambert-Loir's talks at Goutelas.
- Dec. 2017 Monsters in mathematics.
Talk at the "chill seminar" in the MMI (Maison des Mathématiques et de l'Informatique), about different kinds of monsters in mathematics.
- Feb. 2017 From Hilbert to Voronin's universality theorem.
Talk at the "chill seminar" in the MMI (Maison des Mathématiques et de l'Informatique) about Voronin's universality theorem.
- Oct. 2017 Interview with Jean Dhombres about the history of the fundamental theorem of algebra, *JME, Vol. 3*.
Diffusion article in the JME.
- May 2016 Voronin's universality Theorem. *JME, Vol. 2*.
Diffusion article in the JME.
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