

Léo Gayral

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TALKS

Rauzy Seminar and Pytheas Fogg Workshop <i>Uniformly Chaotic Finite-Range Lattice Models.</i>	Marseille, France	2023
DGC Team Day <i>A Short Hike Through Symbolic Dynamics (And the Random Noise Therein).</i>	Toulouse, France	2023
ANR IZES Workshop <i>Controlling the Chaos in Gibbs Measures.</i>	Bordeaux, France	2022
GTC <i>Computational Complexity of Chaotic Gibbs Measures.</i>	Nancy, France	2022
PIMS Probability Seminar, UBC <i>A Short Hike Through Symbolic Dynamics (And the Random Noise Therein).</i>	Vancouver, Canada	2022
SDA2 & Dyadisc5 <i>Controlling the Chaos in Gibbs Measures.</i>	Liège, Belgium	2022
JCB <i>A Short Hike Through Symbolic Dynamics (And the Random Noise Therein).</i>	Bordeaux, France	2022
CAMS Seminars <i>A Short Hike Through Symbolic Dynamics (And the Random Noise Therein), From Noisy Tilings to Computable Analysis.</i>	Beirut, Lebanon	2022
Institut Fourier Probability Seminar <i>A Short Hike Through Symbolic Dynamics (And the Random Noise Therein).</i>	Grenoble, France	2022
GTC <i>The Stability of Noisy Tilings in the Arithmetical Hierarchy.</i>	Nice, France	2021
ANR DIMERS Day <i>An Autumn Stroll Among Random Tilings.</i>	Paris, France	2021
Automata & WAN <i>The Besicovitch-Stability of Noisy Tilings is Undecidable.</i>	Marseille, France	2021
EJCM <i>On the Besicovitch-Stability of some Noisy Subshifts of Finite Type.</i>	Online	2021
CIRM 2565: ALEA Days <i>On the Besicovitch-Stability of some Noisy Subshifts of Finite Type.</i>	Online	2021

CONFERENCES

Probability and Dynamics	Roscoff, France	2023
SDA2	Toulouse, France	2023
CIRM 2887: ALEA Days	Marseille, France	2023
CIRM 2696: ALEA Days	Online	2022
CIRM 2537: New directions in computability	Online	2022
Dyadisc4	Online	2021
JCB	Online	2021
CIRM 2313	Marseille, France	2021
SDA2	Online	2020
EJCM	Online	2020

PUBLICATIONS

Characterisation of the Set of Ground States of Uniformly Chaotic Finite-Range Lattice Models, with Mathieu Sablik and Siamak Taati. Publication process ongoing.	2023
Arithmetical Hierarchy of the Besicovitch-Stability of Noisy Tilings, with Mathieu Sablik. Theory of Computing Systems (2023).	2022
The Besicovitch-Stability of Noisy Tilings is Undecidable. Exploratory paper accepted in Automata 2021.	2021
On the Besicovitch-Stability of Noisy Random Tilings, with Mathieu Sablik. Electronic Journal of Probability 28 (2023).	2021

TEACHING EXPERIENCE

TP d'introduction à la théorie des probabilités (practical classes of probability theory, 24h), plus creation of teaching material (using Jupyter Notebook), in <i>L2 de mathématiques</i> (second year Math undergrad class) at UT3.	2022–2023
Tutoring of two L3 (last year of undergrad) interns at UT3, on the <i>simulation of a randomised Socolar tiling using the Monte-Carlo method</i> .	2022
TP de bases de données (practical classes of SQL, 30h), in <i>L2 d'informatique</i> (second year Computer Science undergrad class) at UT3.	2022
TD et TP d'Outils Mathématiques Discrètes (tutorial and practical classes, 36h), in <i>L1 maths et informatique</i> (first year Math and C.S. undergrad class) at UT3.	2021
Colles d'intégration et de groupes (oral examinations, 10h), in <i>M2 Agrégation</i> (second year Math Teaching graduate class) at UT3.	2021
TP de structures de données en C (practical class on data structures, 28h), in <i>L2 d'informatique</i> (second year Computer Science undergrad class) at UT3.	2021
TD de mathématiques (tutorial class, 30h), in <i>L1 de sciences appliquées</i> (first year Applied Science undergrad class), at <i>Université Toulouse III Paul Sabatier</i> (UT3) in Toulouse, France.	2020
Oral examinations in <i>Classes Préparatoires</i> .	2018–2019
Tutoring of a freshman undergrad student.	2017–2018

RESEARCH STAYS

Department of Mathematics and Statistics, UVic Four weeks research stay with Anthony Quas.	Victoria, Canada	2022
CAMS, AUB Four weeks research stay with Siamak Taati.	Beirut, Lebanon	2022
LIPN Four months internship on the <i>phase transition in Penrose tilings</i> , tutored by Thomas Fernique and Mathieu Sablik.	Villetaneuse, France	2020
LIG One semester internship on <i>potential games with partial interactions</i> , tutored by Bruno Gaujal and Federica Garin.	Grenoble, France	2019
Graduate School of Science Three months summer internship on the <i>filtration determination problem of a random walk driven by a mapping law on a finite directed graph</i> , tutored by Kouji Yano.	Kyoto, Japan	2017
Université Paris-Dauphine Six weeks summer internship on the <i>long term study of the Markov Decision Processes</i> , tutored by Bruno Ziliotto and Xavier Venel.	Paris, France	2016

EDUCATION

Université Paul Sabatier Mathematics PhD, tutored by Mathieu Sablik, on the <i>robustness of tilings and cellular automata under random perturbations</i> .	Toulouse, France	2020–2023
Université Paris-Saclay <i>Master de Mathématiques</i> , obtained in 2020 with 17.18/20 (equivalent to a mathematics M.Sc. with highest honors).	Orsay, France	2019–2020
École Normale Supérieure A leading institution of higher education, entrance to which is based on a competitive examination. <i>Nouveau diplôme de l'ENS de Lyon</i> , obtained in 2020 (school honorary diploma, equivalent to a M.Sc.), <i>Master d'Informatique Fondamentale</i> , obtained in 2019 with 17.15/20 (equivalent to a theoretical C.S. M.Sc. with highest honors), <i>Agrégation de Mathématiques, option D</i> passed in 2018 in 8 th position (competitive teaching examination), <i>Master FEADÉP Mathématiques</i> obtained in 2018 with 17.33/20 (preparation to the Agrégation, equivalent to a math teaching M.Sc. with highest honors), <i>Licence de Mathématiques</i> , obtained in 2016 with 16.64/20 (equivalent to a mathematics B.Sc. with highest honours).	Lyon, France	2015–2020
Lycée Michel de Montaigne <i>Classes Préparatoires</i> , a two years intensive course preparing the entrance to <i>Grandes Écoles</i> .	Bordeaux, France	2013–2015
Lycée Jean Lurçat <i>Baccalauréat Scientifique, spécialité Mathématiques, mention Très Bien</i> with 17.5/20, (equivalent to a High school diploma with highest honors).	Perpignan, France	2010–2013

LANGUAGE SKILLS

Native in French,
Proficient in English, with a *Cambridge English Advanced C2* level certification,
Intermediate Spanish, B2 level,
Intermediate Japanese, B1 level.

COMPUTER SKILLS

Python (NumPy, Matplotlib, Jupyter Notebook),
Markdown,
L^AT_EX,
Shell,
SQL,
C.

MISCELLANEOUS

President of the ENS Japanese Animation Club I organised a weekly screening on various themes choosen within japanese animation.	2017–2019
Viola da Gamba Player I developped creative and musical skills and contributed in a dozen of group concerts.	2004–Present
<i>Brevet d'études musicales</i> (intermediate music theory diploma), in the CRR music conservatory in Perpignan.	2002–2010
