Colin Jahel

TU Dresden

colin.jahel@utu-dresden.de

https://tu-dresden.de/mn/math/algebra/das-institut/beschaeftigte/colin-jahel

Employement

Postdoc.   2023–2025
TU Dresden.

Postdoc.   2021–2023
Carnegie Mellon University.

Academic studies

PhD.   2018–2021
Université Claude Bernard Lyon 1.
Advisors: Lionel Nguyen Van Thé and Todor Tsankov

Research internship.   2017–2018
Advisor: Todor Tsankov, Université Paris Diderot.

Graduate education – Master 2: Probabilities and Applications.   2016–2017
Sorbonne Université, speciality "Probabilities and Random Models".

Bachelor (Licence 3) then Graduate education (first year – Master 1).   2014–2016
ENS de Lyon.

Preprints and publications

Stabilizers for ergodic actions and invariant random expansions of non-archimedean Polish groups, *Arxiv*.
Colin Jahel and Matthieu Joseph, submitted.

Asymptotic Theories of Classes Defined by Forbidden Homomorphisms, *Arxiv*.
Manuel Bodirsky and Colin Jahel, submitted.

Invariant measures on products and on the space of linear orders, *Arxiv*.
Colin Jahel and Todor Tsankov, accepted at Journal de l'École Polytechnique (2022).

Minimal model-universal flows for locally compact Polish groups, .
Colin Jahel and Andy Zucker, accepted at Israel J. Math. (2022).

Extending partial automorphisms of n-partite tournaments, *Arxiv*.
Jan Hubička, Matěj Konečný, Colin Jahel and Marcin Sabok, Eurocomb 2019.

Unique ergodicity of te automorphism group of the semigeneric directed graph, *Arxiv*.
Colin Jahel, accepted at Ergodic Theory and Dynamical Systems.

Topological dynamics of Polish group extensions, *Arxiv*.
Colin Jahel and Andy Zucker, accepted at European Journal of Combinatorics (2022).

Talks

Invariant random expansions and rigidity of p.m.p. actions.
Warsaw.   August 2023
Charles University.   August 2023
Mc Gill.   March 2023

A candidate counterexample for the unique ergodicity problem.
Charles University (Prague).   August 2022

Asymptotic theories and homomorphically-avoided structures).
Université de Paris (Logic seminar).   January 2023
Carnegie Mellon University (ACO seminar).   November 2022
Carnegie Mellon University.   March 2022

Invariant Subgroups of Polish groups (with a focus on S_∞).
Université de Paris (Operator algebras seminar).   January 2023
Université d'Amiens.   January 2023
McGill.   November 2021

Some progress on the unique ergodicity problem.

– Münster (en ligne).	May 2021
– Carnegie Mellon University (en ligne).	Mach 2021
– Dresden (online).	March 2021

Percolation et groupes.
Montpelier, Grad student seminar (oline). March 2021

Actions of automorphism groups of Fraïssé limits on the space of linear orderings.

– Montréal (online).	December 2020
– Vienna (online).	October 2020
– St Petersburg (online).	August 2020
– Caltech Logic seminar (online).	July 2020
– Lyon-Paris Logic seminar (online).	June 2020
– Work seminar Actions !.	January 2020

Lyons-Schramm indistinguishability Theorem.
ENS Lyon, Work seminar Actions ! (online). April 2020

Measuring model-theoric spaces.
ENS Lyon, Grad Students Seminar. November 2019

Dynamics and model-theoretics structures.
Université Paris Diderot, Grad Students Seminar. March 2019

Unique ergodicity, the semigeneric directed graph and short exact sequences.
Banff, Unifying Ramsey Theory. November 2018

Nash-Williams criterion for random walks.
Université Paris Diderot, Ergodic theory work group. October 2018

There is a uniqueness phase for the percolation on Cayley graphs .
Université Paris Diderot, Ergodic theory work seminar. March 2018

Percolation on Caley graphs .
Université Paris Diderot, Ergodic theory work seminar. December 2017

Research schools and conferences

Descriptive Set Theory and Dynamics (invited speaker), *Warsaw.*	August 2023
Midsommer Combinatorics Workshop, *Prague.*	August 2023
Measured Group Theory, Stochastic Processes on Groups, and Borel Combinatorics, *CIRM (France).*	
May 2023 MBorel and Measurable Combinatorics in Algebra and Dynamics, *Montreal.*	March 2022
Midsommer Combinatorics Workshop (invited speaker), *Prague.*	August 2022
Model Theory and Applications, *Cetraro, Italie.*	June 2022
2022 North American Annual Meeting of the ASL, *Cornell, USA.*	April 2022
Interactions between Descriptive Set Theory and Smooth Dynamics, *Banff (online).*	March 2022
Invariant Measures (invited speaker), *St Petersburg.*	August 2020
Kervaire Seminar, *Les Diablerets, Switzerland.*	February 2020
Measurable, Borel and Topological Dynamics, *Marseille.*	October 2019
Ecole d'été GRaphes et Arbres ALéatoires, *Marseille.*	July 2019
Meeting ANR GAMME, *Saint-Etienne de Tinée, France.*	March 2019
Unifying Themes in Ramsey Theory (invited speaker), *Banff, Canada.*	November 2018
Thematic semester: Descriptive set theory and Polish groups, *Lausanne.*	February and March 2018

–Borel combinatorics and ergodic theory conference
–Structure and dynamics of Polish groups conference.

Thematic semester: Groups, Graphs and Dynamics, *Lyon.* November 2017 and January 2018
–Ultrafilters, Ramsey Theory and Dynamics
–Entropy and Sophicity (school)
–Graph limits (school).

Teaching

As teacher

Calculus 2 21-112 *Carnegie Mellon University.*	Spring 202Z
Advanced Linear Algebra 21-341 *Carnegie Mellon University.*	Fall 2021

As teaching assistant

Advanced Probabilities *Institute for Financial and Acturial Studies.* Spring 2021
Measure Theory *Institute for Financial and Acturial Studies.* Fall 2020
Advanced Probabilities *Institute for Financial and Acturial Studies.* Spring 2020
Measure Theory *Institute for Financial and Acturial Studies.* Fall 2019
Probability *Université Paris Diderot.* Spring 2019
Mathematics for Biologists *Université Paris Diderot.* Fall 2018

Short research internships

S_∞-invariant measures supported on a countable structure .
Advisor: Todor Tsankov, Université Paris Diderot. Fall and Summer 2017

Random Walks Generating Graphs.
Advisor : Agelos Georgakopoulos, University of Warwick. Summer 2016

Unique ergodicity of the automorphism group of the random graph.
Advisor : Lionel Nguyen Van Thé, Université d'Aix-Marseille. Summer 2015

Administrative activities

Organization of a meeting between master and PhD students.
Université Claude Bernard Lyon 1. February 2020

Organization of a meeting between master and PhD students.
Université Paris Diderot. April 2019

Member of the doctoral office.
Université Paris Diderot. 2018–2019

Elected member of the Administration council.
ENS de Lyon. 2015–2016

Elected member of the students association.
ENS de Lyon. 2015–2016

Elected member of the council for students' life and welfare.
ENS de Lyon. 2014–2015