Thibaut Lemoine

Education

- 2016–2020 **PhD in Mathematics**, Sorbonne Université, Paris (France), Subject: Asymptotic representation theory and applications to Yang–Mills theory.

 Advisor: Thierry Lévy, LPSM
- 2014–2016 **MSc in Mathematics**, Sorbonne Université, Paris (France), Probability and random models

 With honors
- 2013–2014 MSc in Financial markets, EDHEC Business School, Lille/Nice (France)
- 2012–2014 BSc in Mathematics, Sorbonne Université, Paris (France)
- 2010–2014 Master in Management, EDHEC Business School, Lille/Nice (France), Financial Economics
- 2008–2010 Preparatory class to engineering schools (CPGE), Lycée Janson de Sailly, Paris (France), MPSI–MP
 - 2008 **Baccalauréat Scientifique**, *Lycée Galilée*, Cergy (France) With high honors

Articles

- 2022 Antoine Dahlqvist, Thibaut Lemoine, Large N limit of the Yang–Mills measure on compact surfaces II: Makeenko–Migdal equations and planar master field, arXiv:2201.05886
- 2022 Antoine Dahlqvist, Thibaut Lemoine, Large N limit of Yang–Mills partition function and Wilson loops on compact surfaces, arXiv:2201.05882
- 2021 Thibaut Lemoine, Large N behaviour of the two-dimensional Yang–Mills partition function, Combinatorics, Probability and Computing, 1-22, doi:10.1017/S0963548321000262

Talks

- 2022 Large deviations of empirical measures of Gibbs measures on a compact Riemann surface, Workshop "a probabilistic approach to Kähler–Einstein metrics", IRMA, Strasbourg (France)
- 2022 Large N Limit of Yang–Mills partition function, $Spectra/moduli\ seminar$, Durham (UK)
- 2022 The master field on the torus, 14th meeting of the DynQua GDR, IMT, Toulouse (France)
- 2021 Introduction to noncommutative probability, Stochastic calculus seminar, IRMA, Strasbourg (France)
- 2020 Noncommutative harmonic analysis of $\mathrm{U}(N)$ and application to 2D Yang–Mills theory, Séminaire d'analyse, IRMA, Strasbourg (France)

- 2020 Asymptotics of two-dimensional Yang–Mills partition function, Bernoulli-IMS One World Symposium, Online video seminar
- 2018 Free stochastic calculus with respect to q-Brownian motion, Worskshop "noncommutative probability and rough paths", LPSM, Sorbonne Université, Paris (France)
- 2017 RSK algorithm applied to random permutations, Workshop "Combinatorics and random matrix theory", Université Paris 7, Paris (France)

Seminars

- 2021 Physics and Mathematics colloquium: many-body localization, IRMA, Strasbourg (France)
- 2018 Scaling limits & SPDEs: recent developments and future directions, Isaac Newton Institute, Cambridge (UK)
- 2018 Randomness and symmetry, University College, Dublin (Irlande)
- 2017 Workshop on stochastic analysis and random fields, Technion, Haifa (Israël)
- 2017 Distributional symmetries and independences, Institut mathématique de Bordeaux, Bordeaux (France)
- 2017 Integrable random systems, representation theory and geometry of Lie groups, NCCR, Les Diablerets (Suisse)

Scientific duties

2022 Co-organisation of the conference "Quantum Hall effect and topological phases" and creation of the website (https://irma-web1.math.unistra.fr/QHETPS/), Université de Strasbourg, Strasbourg (France)

Teaching

- 2019–2020 Tutorials in probability, L3, Sorbonne Université, Paris (France)
- 2019–2020 Tutorials in probability, 1st year, ISUP, Paris (France)
- 2019–2020 Tutorials in general mathematics, L1, Sorbonne Université, Paris (France)
- 2016–2019 **Tutorials in C++ programing for mathematicians**, *M1*, Sorbonne Université, Paris (France)
- 2016–2018 Tutorials in multivariable analysis, L2, Sorbonne Université, Paris (France)

Work experience

- 2020–2022 Postdoctoral fellowship on the project "Geometry of quantum Hall states", IRMA, Université de Strasbourg, Strasbourg (France)
- 2019–2020 Attaché temporaire d'enseignement et de recherche, *LPSM*, Sorbonne Université, Paris (France)
- 2016–2019 PhD scholarship, Ecole Doctorale Paris-Centre, Sorbonne Université, Paris (France)
 - 2015–En **Volunteer firefighter**, Centre de Secours de Magny-en-Vexin, Magny-en-Vexin cours (France)

Grade: sergent

2012–2013 **Equity Finance Middle-Office internship**, Société Générale CIB, La Défense (France)

Skills

Languages French (native), English (fluent), German (read and written)

Computer C++, \LaTeX , Python, Excel/VBA, Matlab/Scilab, Maple skills