

# Guillaume Dubach

CV

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## General Informations

Surnames Guillaume, Paul.  
Name Dubach.  
Born 09/17/1990, Metz.  
Citizenship french  
Family status Married, two children.

## Education and career

2020 – **ISTplus fellow**, *IST Austria*, Klosterneuburg, Autriche  
2019 – 2020 **Research Assistant**, *Baruch College, City University of New York*, USA  
2014 – 2019 **PhD student**, *Courant Institute, New York University*, USA  
2009 – 2014 **Élève fonctionnaire-stagiaire**, *École Normale Supérieure*, Paris  
2007 – 2009 **Élève en classes préparatoires MPSI-MP\***, *Lycée Louis-le-grand*, Paris

## PhD Thesis

Titre *On integrable models of non-Hermitian random matrices.*  
Director: Paul Bourgade. Defended on April 30th, 2019.

## Prizes and awards

2020 **ISTplus fellowship**  
2019 **Wilhelm T. Magnus Memorial Prize**  
*'for significant contributions to the mathematical sciences.'*  
2018 **Newman Fellowship**  
2014 **MacCracken Fellowship**

## Published works

G. Dubach, *On eigenvector statistics in the spherical and truncated unitary ensembles* Electronic Journal of Probability **26** (2021), 1–29.

G. Dubach, Y. Peled, *On words of non-Hermitian random matrices*, The Annals of Probability **49** no.4 (2021), 1886–1916..

P. Bourgade, G. Dubach, *The distribution of overlaps between eigenvectors of Ginibre matrices*, Probability Theory and Related Fields **177** (2020), 397–464.

G. Dubach, *Symmetries of the Quaternionic Ginibre ensemble*, Random Matrices: Theory and Applications (2020), 2150013.

G. Dubach, *Powers of Ginibre eigenvalues*, Electronic Journal of Probability **23** (2018), 1–31.

## Submitted works

G. Dubach, *Explicit formulas concerning eigenvectors of weakly non-unitary matrices*, arxiv:2111.12517.

G. Dubach, *On the number of cycles in commutators of random permutations*, arxiv:2111.06311.

Appendix of: A. Serebryakov, N. Simm, G. Dubach, *Characteristic polynomials of random truncations: moments, duality and asymptotics*, arxiv:2109.10331.

G. Dubach, L. Erdős *Dynamics of a rank one perturbation of a Hermitian matrix*, arxiv:2108.13694.

L.P. Arguin, G. Dubach, L. Hartung, *Maxima of a Random Model of the Riemann Zeta Function over Intervals of Varying Length*, arxiv:2103.04817.

## Invitations to scientific events

- 2021 **Institut Henri Poincaré**, *Séminaire Matrices et graphes aléatoires (MEGA)*, speaker
- 2021 **LPSM, Sophie Germain**, *Séance du groupe de travail Modélisation*, speaker
- 2021 **IST Austria**, *Stochastics Seminar*, speaker
- 2020 **University of California San Diego**, *Probability Seminar*, speaker
- 2020 **TU Wien**, *Vienna Probability Seminar*, speaker
- 2020 **Oberwolfach workshop MFO 2025**, *Universality: Random Matrices, Random Geometry and SPDEs*, invited participant (event cancelled)
- 2020 **Georgia Tech**, *Stochastics seminar*, speaker (event cancelled)
- 2020 **University of Binghamton**, *Analysis seminar*, speaker

- 2019 **University of Binghamton**, *AMS session on Stochastic Evolution of Discrete Structures*, speaker
- 2019 **City University of New York**, *Probability Seminar*, speaker
- 2019 **IST Austria**, *Mathphys Analysis seminar*, speaker
- 2019 **Institut Henri Poincaré**, *Séminaire Matrices et graphes aléatoires (MEGA)*, speaker
- 2019 **New York University**, *Probability Seminar*, speaker
- 2019 **Temple University**, *Temple/Penn Probability Seminar*, speaker
- 2019 **MIT**, *Probability Seminar*, speaker
- 2018 **New York University**, *North-East Probability Seminar*, junior speaker
- 2018 **Israel Science Foundation**, *Yad Hashmona research workshop on Random Matrices, Integrability and Complex Systems*, speaker
- 2018 **City University of New York**, *Probability Seminar*, speaker
- 2017 **Columbia University**, *North-East Probability Seminar*, junior speaker

## Referee

I have been a referee for the following journals.

- *Electronic Journal of Probability*
- *Annals of Applied Probability*
- *Journal of Physics A: Mathematical and Theoretical*
- *Geometric and Functional Analysis*
- *Annales de l'Institut Henri Poincaré*
- *Annals of Probability*
- *Electronic Communications in Probability*

I am also an occasional reviewer for the *Mathematical Reviews* of the AMS.

## Other activities

- 2021 IST Austria: *Probability and Statistics for life scientists*, instructor.
- 2021 *Teaching Didactics* workshop at IST Austria, participant.
- 2021 Scientific talk for summer interns at IST Austria.
- 2021 *Pre-screening* of PhD applications at IST Austria.
- 2016 – 2019 Teaching Assistant for various classes at NYU.
- 2015 – 2019 Co-organiser of the Students' Probability Seminar at NYU.
- 2011 – 2012 *French Lecteur* at Robinson and St. Catharine's College, Cambridge, UK.
- 2010 – 2013 Teaching Assistant at lycée Louis-le-Grand, Paris.