

Employment

- 2020-Present Assistant professor (Mathematic & Statistics), *McGill University*.
- 2016-2020 Assistant professor (Mathematics & The Translational Data Analytics Institute), *The Ohio State University*.
- 2013-2016: NSF Postdoctoral fellow, *Weizmann Institute of Science*
- 2008-2013: Teaching assistant and instructor, *University of Washington*

Education

- University of Washington, Seattle, WA
September 2008 – August 2013 Ph.D. in Mathematics.
Advisor: Ioana Dumitriu
Thesis: *Eigenvalue fluctuations of random matrices beyond the Gaussian universality class*
- Kalamazoo College, Kalamazoo, MI.
B.A. Magna Cum Laude in Mathematics and Physics, June 2008.
Undergraduate Thesis: *A Synthetic Approach to the Characterization of Graph Invariants*

Honors and Grants

- NSERC Discovery Grant 2020–2025. *Random series in the unit disk, random matrix theory, and the gaussian multiplicative chaos*. Discovery launch supplement.
- USA–Israel Binational Science Foundation Startup Grant, no. 2018341, with Alon Nishry of Tel Aviv University (2019). *Gaussian analytic functions and planar branching processes*. 2019-2021 (ended early on account of relocation).
- Simons travel grant No. 638152. 2019-2024 (withdrawn).
- Feinberg Graduate School prize for outstanding postdoctoral research (April 2017)
- NSF Postdoctoral Fellowship DMS-1304057 (2013-2016)
- McKibben-Merner Fellowship (2012-2013)
- UW Top Scholar Award (2008-2009)

- Phi Beta Kappa member

Articles in review

1. I. Benjamini, Y. Krauz, and E. Paquette. “Anchored expansion of De-launay complexes in real hyperbolic space and stationary point processes”. In: *arXiv e-prints*, arXiv:2008.01063 (Aug. 2020), arXiv:2008.01063. arXiv: [2008.01063 \[math.PR\]](#)
2. E. Paquette and T. Trogdon. “Universality for the conjugate gradient and MINRES algorithms on sample covariance matrices”. In: *arXiv e-prints*, arXiv:2007.00640 (July 2020), arXiv:2007.00640. arXiv: [2007.00640 \[math.NA\]](#)
3. P. Maillard and E. Paquette. “Interval fragmentations with choice: equidistribution and the evolution of tagged fragments”. In: *arXiv e-prints*, arXiv:2006.16932 (June 2020), arXiv:2006.16932. arXiv: [2006.16932 \[math.PR\]](#)
4. A. Nishry and E. Paquette. “Gaussian analytic functions of bounded mean oscillation”. In: *arXiv e-prints*, arXiv:2002.00804 (Feb. 2020), arXiv:2002.00804. arXiv: [2002.00804 \[math.CV\]](#)
5. G. Lambert and E. Paquette. “Strong approximation of Gaussian beta-ensemble characteristic polynomials: the hyperbolic regime”. In: *arXiv e-prints*, arXiv:2001.09042 (Jan. 2020), arXiv:2001.09042. arXiv: [2001.09042 \[math.PR\]](#)
6. M. Kahle, E. Paquette, and É. Roldán. “The fundamental group of 2-dimensional random cubical complexes”. In: *arXiv e-prints*, arXiv:2001.07812 (Jan. 2020), arXiv:2001.07812. arXiv: [2001.07812 \[math.CO\]](#)
7. M. Carrasco, P. Lessa, and E. Paquette. “On the speed of distance stationary sequences”. In: *arXiv e-prints*, arXiv:1912.12523 (Dec. 2019), arXiv:1912.12523. arXiv: [1912.12523 \[math.PR\]](#)
8. A. Newman and E. Paquette. “The integer homology threshold in $Y_d(n, p)$ ”. In: *arXiv e-prints*, arXiv:1808.10647 (Aug. 2018), arXiv:1808.10647. arXiv: [1808.10647 \[math.CO\]](#)

Articles accepted for publication

Published articles

1. A. Basak, E. Paquette, and O. Zeitouni. “Spectrum of random perturbations of Toeplitz matrices with finite symbols”. In: *Trans. Amer. Math. Soc.* 373.7, arXiv:1812.06207 (2020), pp. 4999–5023. ISSN: 0002-9947. DOI: [10.1090/tran/8040](#). arXiv: [1812.06207 \[math.PR\]](#)

2. H. H. Nguyen and E. Paquette. “Surjectivity of near-square random matrices”. In: *Combinatorics, Probability and Computing* 29.2, arXiv:1802.00001 (2020), pp. 267–292. DOI: [10.1017/S0963548319000348](https://doi.org/10.1017/S0963548319000348). arXiv: [1802.00001](https://arxiv.org/abs/1802.00001) [math.ST]
3. A. Basak, E. Paquette, and O. Zeitouni. “Regularization of non-normal matrices by Gaussian noise - the banded Toeplitz and twisted Toeplitz cases”. In: *Forum Math. Sigma* 7 (Nov. 2017), Paper No. e3, 72. DOI: [10.1017/fms.2018.29](https://doi.org/10.1017/fms.2018.29). eprint: [1712.00042](https://arxiv.org/abs/1712.00042) (math.PR)
4. C. Hoffman, M. Kahle, and E. Paquette. “Spectral Gaps of Random Graphs and Applications”. In: *International Mathematics Research Notices* (May 2019). ISSN: 1073-7928. DOI: [10.1093/imrn/rnz077](https://doi.org/10.1093/imrn/rnz077). eprint: [1201.0425](https://arxiv.org/abs/1201.0425). URL: <https://doi.org/10.1093/imrn/rnz077>
5. E. Paquette. “Distributional Lattices on Riemannian symmetric spaces”. In: *Unimodularity in randomly generated graphs*. Vol. 719. Contemp. Math. Amer. Math. Soc., Providence, RI, 2018, pp. 63–84. DOI: [10.1090/conm/719/14470](https://doi.org/10.1090/conm/719/14470). arXiv: [1707.00308](https://arxiv.org/abs/1707.00308) [math.PR]
6. D. Holcomb and E. Paquette. “The maximum deviation of the $Sine_\beta$ counting process”. In: *Electron. Commun. Probab.* 23 (2018), 13 pp. DOI: [doi:10.1214/18-ECP149](https://doi.org/10.1214/18-ECP149). eprint: [1801.08989](https://arxiv.org/abs/1801.08989). URL: <https://doi.org/10.1214/18-ECP149>
7. I. Benjamini, E. Paquette, and J. Pfeffer. “Anchored expansion, speed and the Poisson–Voronoi tessellation in symmetric spaces”. In: *Annals of Probability* 46.4 (July 2018), pp. 1917–1956. DOI: [10.1214/17-AOP1216](https://doi.org/10.1214/17-AOP1216). arXiv: [1409.4312](https://arxiv.org/abs/1409.4312) [math.PR]
8. G. Lambert and E. Paquette. “The law of large numbers for the maximum of almost Gaussian log-correlated fields coming from random matrices”. In: *Probability Theory and Related Fields* (Feb. 2018), pp. 1–53. ISSN: 1432-2064. DOI: [10.1007/s00440-018-0832-2](https://doi.org/10.1007/s00440-018-0832-2). arXiv: [1611.08885](https://arxiv.org/abs/1611.08885) [math.PR]
9. I. Dumitriu and E. Paquette. “Spectra of Overlapping Wishart Matrices and the Gaussian Free Field”. In: *Random Matrix Theory and Applications* 7.02 (2018). DOI: [doi:10.1142/S201032631850003X](https://doi.org/10.1142/S201032631850003X). arXiv: [1410.7268](https://arxiv.org/abs/1410.7268) [math.PR]
10. E. Paquette and O. Zeitouni. “The maximum of the CUE field”. In: *International Mathematics Research Notices* 2018.16 (2018), pp. 5028–5119. DOI: [10.1093/imrn/rnx033](https://doi.org/10.1093/imrn/rnx033). arXiv: [1602.08875](https://arxiv.org/abs/1602.08875) [math.PR]
11. E. Paquette and O. Zeitouni. “Extremal eigenvalue correlations in the GUE minor process and a law of fractional logarithm”. In: *The Annals of Probability* 45.6A (2017), pp. 4112–4166. DOI: [doi:10.1214/16-AOP1161](https://doi.org/10.1214/16-AOP1161). arXiv: [1505.05627](https://arxiv.org/abs/1505.05627) [math.PR]

12. E. Paquette and Y. Son. “Birkhoff sum fluctuations in substitution dynamical systems”. In: *Ergodic Theory and Dynamical Systems* (2017), pp. 1–35. DOI: [doi:10.1017/etds.2017.83](https://doi.org/10.1017/etds.2017.83). arXiv: [1505.01428](https://arxiv.org/abs/1505.01428) [math.DS]
13. C. Hoffman, M. Kahle, and E. Paquette. “The threshold for integer homology in random d-complexes”. In: *Discrete & Computational Geometry* 57.4 (2017), pp. 810–823. DOI: [10.1007/s00454-017-9863-1](https://doi.org/10.1007/s00454-017-9863-1). arXiv: [1308.6232](https://arxiv.org/abs/1308.6232) [math.AT]
14. P. Maillard and E. Paquette. “Choices and intervals”. In: *Israel J. Math.* 212.1 (2016), pp. 337–384. ISSN: 0021-2172. DOI: [10.1007/s11856-016-1289-6](https://doi.org/10.1007/s11856-016-1289-6). eprint: [1402.3931](https://arxiv.org/abs/1402.3931). URL: <http://dx.doi.org/10.1007/s11856-016-1289-6>
15. O. N. Feldheim, E. Paquette, and O. Zeitouni. “Regularization of non-normal matrices by Gaussian noise”. In: *Int. Math. Res. Not. IMRN* 18 (2015), pp. 8724–8751. ISSN: 1073-7928. DOI: [10.1093/imrn/rnu213](https://doi.org/10.1093/imrn/rnu213). eprint: [1404.3491](https://arxiv.org/abs/1404.3491). URL: <http://dx.doi.org/10.1093/imrn/rnu213>
16. Y. Malyshkin and E. Paquette. “The power of choice combined with preferential attachment”. In: *Electron. Commun. Probab.* 19 (2014), no. 44, 13. ISSN: 1083-589X. DOI: [10.1214/ECP.v19-3461](https://doi.org/10.1214/ECP.v19-3461). eprint: [1403.4301](https://arxiv.org/abs/1403.4301). URL: <http://dx.doi.org/10.1214/ECP.v19-3461>
17. Y. Malyshkin and E. Paquette. “The power of choice over preferential attachment”. In: *ALEA Lat. Am. J. Probab. Math. Stat.* 12.2 (2015), pp. 903–915. ISSN: 1980-0436. eprint: [1311.1091](https://arxiv.org/abs/1311.1091)
18. I. Dumitriu et al. “Functional limit theorems for random regular graphs”. In: *Probab. Theory Related Fields* 156.3-4 (2013), pp. 921–975. ISSN: 0178-8051. DOI: [10.1007/s00440-012-0447-y](https://doi.org/10.1007/s00440-012-0447-y). eprint: [1109.4094](https://arxiv.org/abs/1109.4094). URL: <http://dx.doi.org/10.1007/s00440-012-0447-y>
19. I. Dumitriu and E. Paquette. “Global fluctuations for linear statistics of β -Jacobi ensembles”. In: *Random Matrices Theory Appl.* 1.4 (2012), p. 60. ISSN: 2010-3263. DOI: [10.1142/S201032631250013X](https://doi.org/10.1142/S201032631250013X). eprint: [1203.6103](https://arxiv.org/abs/1203.6103). URL: <http://dx.doi.org/10.1142/S201032631250013X>
20. T. Keleti and E. Paquette. “The trouble with von Koch curves built from n -gons”. In: *Amer. Math. Monthly* 117.2 (2010), pp. 124–137. ISSN: 0002-9890. DOI: [10.4169/000298910X476040](https://doi.org/10.4169/000298910X476040). URL: <http://dx.doi.org/10.4169/000298910X476040>
21. E. Paquette and C. Seaton. “The index of a vector field on an orbifold with boundary”. In: *Involve* 2.2 (2009), pp. 161–175. ISSN: 1944-4176. DOI: [10.2140/involve.2009.2.161](https://doi.org/10.2140/involve.2009.2.161). eprint: [0806.2113](https://arxiv.org/abs/0806.2113). URL: <http://dx.doi.org/10.2140/involve.2009.2.161>

Other articles

1. T. Johnson and E. Paquette. “Quantitative Small Subgraph Conditioning”. In: *ArXiv e-prints* (July 2013). arXiv: [1307.4858 \[math.PR\]](#)
2. M. Carrasco, P. Lessa, and E. Paquette. “A Furstenberg type formula for the speed of distance stationary sequences”. In: *submitted* (Oct. 2017). arXiv: [1710.00733 \[math.PR\]](#)
3. D. Holcomb and E. Paquette. “Tridiagonal Models for Dyson Brownian Motion”. In: *submitted* (July 2017). arXiv: [1707.02700 \[math.PR\]](#)

——— Talks ———

Invited Talks Given

E. Paquette. *The characteristic polynomial of random matrices and the Gaussian multiplicative chaos*. Random geometries and multifractality. International Institute of Physics. Natal, Brazil (July 2019)

E. Paquette. *The Gaussian analytic function is either bounded or covers the plane* Weizmann Institute Probability seminar. (February 2019)

E. Paquette. *Random matrix point processes via stochastic processes*, UC Irvine Probability Seminar, (January 2019)

E. Paquette. *Distributional approximation of the characteristic polynomial of a Gaussian beta-ensemble*, Cincinnati Symposium on Probability Theory, University of Cincinnati (November 2018)

E. Paquette. *Distributional approximation of the characteristic polynomial of a Gaussian beta-ensemble*, Courant Probability Seminar, NYU (October 2018)

E. Paquette. *Distributional approximation of the characteristic polynomial of a Gaussian beta-ensemble*, Wisconsin Probability Seminar, Madison (October 2018)

E. Paquette. *Random matrix point processes via stochastic processes*, AMS Sectional Meeting, Newark Delaware (September 2018)

E. Paquette. *Distributional approximation of the characteristic polynomial of a Gaussian beta-ensemble*, Gaussian Fields in Random Matrix Theory, Institute Mittag-Leffler (June 2018)

E. Paquette. *Random matrix point processes via stochastic processes*, Weizmann (May 2018)

E. Paquette. *Random matrix point processes via stochastic processes*, South-eastern Probability Conference, Duke (May 2018)

E. Paquette. *Algebraic questions about combinatorial random matrices*, AMS sectional meeting, Nashville (April 2018)

E. Paquette. *Perturbations of non-normal matrices*, AMS sectional meeting, UC Riverside (January 2018)

E. Paquette. *Choices and intervals*, Georgia Tech Probability seminar (November 2017)

E. Paquette. *The law of large numbers for the maximum of the log-potential of random matrices*, Northwestern University Probability seminar (October 2017)

E. Paquette. *Tridiagonal models of β -Dyson Brownian motion*, PCMI Summer Session 2017: Random matrices (July 2017)

E. Paquette. *Perturbations of non-normal matrices*, NYU Courant Probability seminar (March 2017)

E. Paquette. *The law of fractional logarithm of the GUE minor process*, Michigan Probability seminar (February 2017)

E. Paquette. *Probability and spectra*, Rabaden Lab, Columbia University (February 2017)

E. Paquette. *Random perturbations of non-normal matrices*, UC Irvine Probability Seminar (January 2017)

E. Paquette. *Ibid*, US Air Force Institute of Technology (December 2016)

E. Paquette. *The law of large numbers for the maximum of the log-potential of random matrices*, IUPUI Analysis seminar (November 2016)

E. Paquette. *Property (T) in simplicial complexes and the spectral evolution of random graphs*, Stochastic Topology and thermodynamic limits, ICERM (November 2016)

E. Paquette. *The law of fractional logarithm in the GUE minor process*, Temple/UPenn Probability seminar (November 2016)

E. Paquette. *Hyperbolic Poisson Voronoi Tessellation*, Denver AMS Sectional meeting (October 2016)

E. Paquette. *Almost Gaussian log-correlated fields*, Geometry seminar, Indiana University (October 2016)

E. Paquette. *The law of large numbers for the maximum of the log-potential of random matrices*, Denver AMS Sectional meeting (October 2016)

E. Paquette. *Ibid.*, Probability seminar, Purdue University (September 2016)

E. Paquette. *Almost gaussian log-correlated fields*, Dynamics and Probability seminar, Hebrew University of Jerusalem (May 2016)

E. Paquette. *The correction term for the maximum of the CUE characteristic polynomial*, Extrema of logarithmically correlated processes, Heilbronn Institute, Bristol (May 2016)

E. Paquette. *Ibid.*, Probability seminar, Technion (May 2016)

E. Paquette. *The law of large numbers for the maximum of the log-potential of random matrices*, Beta Ensembles: Universality, Integrability, and Asymptotics, Banff (Apr 2016)

E. Paquette. *The law of large numbers for the maximum of the log-characteristic polynomial associated to GUE*, Random matrix theory and strongly correlated systems, Warwick (Mar 2016)

E. Paquette. *The law of fractional logarithm in the GUE minor process*, Probability Seminar, Queen Mary University, London (Mar 2016)

E. Paquette. *The Poisson Voronoi tessellation in hyperbolic space*, Department colloquium, Utrecht, (Jan 2016)

E. Paquette. *Ibid.*, Spectrum of random graphs, CIRM Luminy, (Jan 2016)

E. Paquette. *The law of fractional logarithm in the GUE minor process*, Probability Seminar, ETH Zurich (Oct 2015)

E. Paquette. *The Poisson Voronoi tessellation in hyperbolic space*, Probability Seminar, Orsay (Oct 2015)

E. Paquette. *Ibid.*, Probability Seminar, Universidad de la República, Uruguay (Sept 2015)

E. Paquette. *Ibid.*, Seymour Sherman Conference. Bloomington, Indiana (Spring 2015)

E. Paquette. *Local spectral expansion in random complexes* Between Combinatorics and Topology. Hebrew University of Jerusalem (Fall 2014).

E. Paquette. *Local spectral expansion in random complexes* Technion Probability Seminar (Fall 2014).

E. Paquette. *Stationary random graphs and the hyperbolic Poisson Voronoi tessellation*, Ohio State University, Probability and Combinatorics Seminar (Fall 2014)

E. Paquette. *Ibid.*, Courant Probability Seminar (Fall 2014)

E. Paquette. *Choices and Intervals*, Action Now Seminar, Technion (Summer 2014)

E. Paquette. *Ibid.*, Ben Gurion University Probability Seminar (Spring 2014)

E. Paquette. *Ibid.*, Horowitz Seminar, Tel Aviv University (Spring 2014)

E. Paquette. *The spectrum of Erdős-Rényi graphs near the connectivity threshold*, Technion (Fall 2013)

E. Paquette. *Sample Covariance Matrices and the GFF*, IMA Advances in Random Matrix Theory, (Summer 2012)

E. Paquette. *The Eigenvalues that Fluctuate and the Eigenvalues that Escape Us*, UW Probability Seminar, (November 2011).

E. Paquette. *The Trouble with von Koch Curves built from n -gons*, UW Rainwater Seminar, (Spring 2010).