**CV - Pierre Yves Gaudreau Lamarre**

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**EMPLOYMENT HISTORY**

**Assistant Professor – Syracuse University** (2023–)  
Department of Mathematics

**William H. Kruskal Instructor – University of Chicago** (2020–2023)  
Department of Statistics & Committee on Computational and Applied Mathematics

**EDUCATION**

**PhD – Princeton University** (2015–2020)  
Operations Research and Financial Engineering  
Adviser: Mykhaylo Shkolnikov

**BSc & MSc – University of Ottawa** (2009–2015)Department of Mathematics and Statistics  
Adviser: Benoît Collins

**RESEARCH INTERESTS**

Probability theory, functional analysis, and mathematical physics: Random Schrödinger operators, stochastic partial differential equations, random matrices, and free probability.

**PUBLICATIONS & NOTES**

**Research Papers**

* Moment Intermittency in the PAM With Asymptotically Singular Noise  
  (with Promit Ghosal and Yuchen Liao)  
  **Trans. Amer. Math. Soc.** Accepted
* Rigidity of the Stochastic Airy Operator  
  (with Promit Ghosal, Wenxuan Li, and Yuchen Liao)  
  **Int. Math. Res. Not. IMRN** Accepted
* KPZ equation with a small noise, deep upper tail and limit shape  
  (with Yier Lin and Li-Cheng Tsai)  
  **Probab. Theory Related Fields** 185 (2023), no.3-4, 885–920.
* On Spatial Conditioning of the Spectrum of Discrete Random Schro ̈dinger Operators (with Promit Ghosal and Yuchen Liao)  
  **J. Spectr. Theory** 12 (2022), no. 3, 1109–1153.
* Phase Transitions in Asymptotically Singular Anderson Hamiltonian and Parabolic Model **Stoch. Partial Differ. Equ. Anal. Comput.** 10 (2022), no. 4, 1451–1499.
* Asymptotic Freeness of Unitary Matrices in Tensor Product Spaces for Invariant States (with Benoît Collins and Camille Male)  
  **Random Matrices Theory Appl.** 12 (2023), no. 2, Paper No. 2250052, 39 pp.
* Spectral Rigidity of Random Schro ̈dinger Operators via Feynman-Kac Formulas  
  (with Promit Ghosal and Yuchen Liao)  
  **Ann. Henri Poincaré** 21 (2020), no. 7, 2259–2299.
* On the Convergence of Random Tridiagonal Matrices to Stochastic Semigroups   
  **Ann. Inst. Henri Poincaré Probab. Stat.** 56 (2020), 2686–2731
* Semigroups for One-Dimensional Schro ̈dinger Operators with Multiplicative White Noise   
  **Electron. J. Probab.** 26 (2021), Paper No. 107, 47 pp.
* Edge of Spiked Beta Ensembles, Stochastic Airy Semigroups and Reflected Brownian Motions   
  (with Mykhaylo Shkolnikov)  
  **Ann. Inst. Henri Poincaré Probab. Stat.** 55 (2019), 1402–1438
* ∗-Freeness in Finite Tensor Products (with Benoît Collins)  
  **Adv. in Appl. Math.** 83 (2017), 47–80

**TEACHING EXPERIENCE**

* **University of Chicago** (Instructor)
* STAT 25100: Introduction to Mathematical Probability (fall 2022)
* CAAM/STAT 38520: Topics in Random Matrix Theory (winter 2022)
* STAT 25100: Introduction to Mathematical Probability (fall 2021)
* MATH 18600: Mathematics of Quantum Mechanics (fall 2021)
* STAT 25100: Introduction to Mathematical Probability (spring 2021)
* CAAM/STAT 38520: Topics in Random Matrix Theory (winter 2021)

**RESEARCH SUPERVISION EXPERIENCE**

**University of Chicago** (Undergraduate Research Projects)

* Student Name: Ethan Naegele  
  Context: STAT 29700: Undergraduate Research  
  Project Title: The Discrete Feynman-Kac Formula
* Student Name: Alex Byard  
  Context:STAT 29700: Undergraduate Research  
  Project Title: 𝛽-Ensembles and Random Matrix Theory
* Student Name: Wenxuan (Wilson) Li  
  Context: The University of Chicago Mathematics REU 2021  
  Project Title: Number Rigidity in Point Processes

**RESEARCH PRESENTATIONS**

**Invited Talks**

* + AMS 2023 Fall Eastern Sectional Meeting  
    SUNY Buffalo, USA (2023)
  + Frontiers in Stochastic Analysis conference  
    University of Illinois Chicago, USA (2023)
  + Analysis and Applied Mathematics Seminar  
    University of Illinois Chicago, USA (2023)
  + Probability Seminar  
    University of Wisconsin–Madison, USA (2022)
  + Probability Seminar  
    Centre de Recherches Mathématiques, Canada (2022)
* Probability Seminar  
  Massachusetts Institute of Technology, USA (2021)
* Probability Seminar  
  Purdue University, USA (2021)
* Probability and Statistical Physics Seminar  
  University of Chicago, USA (2021)
* Stochastics Seminar  
  University of Utah and University of Arizona, USA (2021)
* Computational and Applied Mathematics Colloquium  
  University of Chicago, USA (2020)
* Mathematical Physics Seminar  
  Rutgers University, USA (2019)
* Penn/Temple Probability Seminar  
  Temple University, USA (2019)
* Statistics and Probability Seminar   
  University of Ottawa, Canada (2019)
* PACM Graduate Student Seminar  
  Princeton University, USA (2019)
* Seminar on Free Probability and Random Matrices  
  Queen’s University, Canada (2015)
* Free Probability Seminar  
  Saarland University, Germany (2015)

**Contributed Talks**

* Oxford Princeton Workshop on Financial Mathematics and Stochastic Analysis  
  Princeton University, USA (2019)
* Conference on Stochastic Processes and their Applications  
  Chalmers University of Technology, Sweden (2018)
* Summer school on Dyson-Schwinger equations, topological expansions, and random matrices   
  Columbia University, USA (2017)

**Invited Poster Presentations**

* Workshop on the Theory and Applications of Stochastic Partial Differential Equations  
  Fields Institute, Canada (2019)
* Random matrices and their applications  
  Kyoto University, Japan (2018)

**Contributed Poster Presentations**

* Integrability and Randomness in Mathematical Physics and Geometry  
  CIRM, Marseille, France (2019)