

Kelvin Rivera-Lopez

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Positions

Sep. 2021 to Aug. 2022 *Postdoctoral Researcher*, Université de Lorraine IECL
Mentor: Valentin Féray

Education

Aug. 2021 *PhD in Applied Mathematics*, University of Delaware
Dissertation: A Study of the Ordered Chinese Restaurant Process and Random Dissections
Advisor: Douglas Rizzolo

May 2017 *MS in Applied Mathematics*, University of Delaware

May 2015 *BS in Mathematical Sciences*, New Jersey Institute of Technology
Honors Scholar

Research Interests

combinatorial stochastic processes \diamond diffusive limits \diamond probabilistic combinatorics

Papers

arXiv: *The leftmost column of ordered Chinese Restaurant Process up-down chains:*
2110.10848 *intertwining and convergence*. With Douglas Rizzolo.

to appear *Diffusive limits of two-parameter ordered Chinese Restaurant Process up-down chains.*
Annales de l'Institut Henri Poincaré. With Douglas Rizzolo.

in preparation *The maximum vertex degree in random dissections.*
With Douglas Rizzolo.

Presentations

Invited Talks

Apr. 2022 *Up-down chains arising from the ordered Chinese Restaurant Process*
Random matrices meet random permutations, Université de Lille

- Oct. 2021 *The up-down chains of the ordered Chinese Restaurant Process*
Combinatorics Seminar, Dartmouth College
- Apr. 2021 *Diffusions arising from the ordered Chinese Restaurant Process*
Probability Seminar, University of Virginia
- Apr. 2020 *The Limit of the Ordered Chinese Restaurant Process with Resampling*¹
Probability Seminar, University of Virginia

Conference Participations

- Feb. 2020 *The First Table in the Chinese Restaurant Process with Resampling (poster)*
Seminar on Stochastic Processes 2020, Michigan State University

Departmental Presentations

- Oct. 2021 *Diffusions arising from the ordered Chinese Restaurant Process*
Probability Seminar, Université de Lorraine
- Oct. 2019 *An Introduction to One-Dimensional Markov Processes: Part III*
Probability Seminar, University of Delaware
- Sep. 2019 *An Introduction to One-Dimensional Markov Processes: Part II*
Probability Seminar, University of Delaware
- Sep. 2019 *An Introduction to One-Dimensional Markov Processes: Part I*
Probability Seminar, University of Delaware
- Feb. 2019 *A Concentration Inequality for the Maximum Vertex Degree in Random Dissections (poster)*
Winter Research Symposium, University of Delaware

Teaching Experience

Instructor

- Winter 2019 *Calculus II*, University of Delaware

Teaching Assistant

- Fall 2020 *Calculus II*, University of Delaware
Fall 2018 *Calculus I*, University of Delaware
Spring 2017 *Finite Mathematics*, University of Delaware

Moderator

- Winter 2020 *Review of Vector Spaces (for the Qualifying Exam)*, University of Delaware

¹ canceled due to COVID-19

Graduate Student Researcher

Fall 2019 *Improving Calculus Instruction through content-specific TA professional development*, University of Delaware

Awards

Summer 2020 *Summer Doctoral Fellowship*, University of Delaware

Spring 2019, *Unidel Research Fellowship*, University of Delaware
Summer 2018,
Summer 2016

Fall 2015 to *Graduate Scholar Award*, University of Delaware
Spring 2017

Spring 2013 to *NJIT Honor's Scholarship*, New Jersey Institute of Technology
Spring 2015

Outreach

Fall 2019 *Coach*, Delaware Secondary Schools Mathematics League