Kyeongsik Nam

CONTACT
INFORMATION

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RESEARCH
INTERESTS

Probability, statistical mechanics, random graphs, and stochastic differential equations.

EDUCATION

University of California, Berkeley   2015 - Present

  Ph.D. Candidate in Mathematics
  - Advisor : Fraydoun Rezakhanlou

Seoul National University   2009 - 2015

  B.S. in Mathematics, B.A. in Economics
  - Summa Cum Laude
  - (Mandatory) Military service (Apr. 2011 - Jan. 2013)

PREPRINTS AND
PUBLICATIONS

1. (with S. Ganguly) *Sub-critical exponential random graphs: concentration of measure and some applications*, (2019). Preprint available at arXiv:1909.11080

2. *Large deviations and localization of the microcanonical ensembles given by multiple constraints*, (2018). Submitted. Preprint available at arXiv:1809.04138.

3. *Hypoelliptic diffusions with singular drifts*, (2018). Submitted. Preprint available at arXiv:1806.10172.

4. *Stochastic differential equations with critical drifts*, (2018). Submitted. Preprint available at arXiv:1802.00074.

5. (with B. Gil, J. Han, T. Kim, R. Koo, B. Lee, J. Lee, H. Park, and P. Park) *Frobenius numbers of Pythagorean triples*, International Journal of Number Theory **11** (2015), 613-619.

HONORS AND
AWARDS

James H. Simons Fellowship, University of California, Berkeley   2018
Scholarship for Ph.D. Students, Korea Foundation for Advanced Studies   2015 - Present
Gold Medal, National Mathematics Competition for University Students   2014
The Presidential Science Scholarship for Undergraduate Students   2009 - 2015
Gold Medal, 49th International Mathematical Olympiad   2008

TALKS

Equivalence of ensembles for the microcanonical ensemble with several constraints
- Korea Institute for Advanced Study   May. 2019
The structure of Gibbs measure with low complexity
- Probability/PDE seminar, University of California, Berkeley   Feb. 2019
Large deviations and localization of the microcanonical ensembles given by multiple constraints
- Probability/PDE seminar, University of California, Berkeley   Sep. 2018
- Probability/PDE seminar, University of California, Berkeley   Aug. 2018

Elliptic and hypoelliptic diffusions with singular drifts
- Korea University   May. 2018
- Korea Institute for Advanced Study   May. 2018
- Seoul National University   May. 2018

Hypoelliptic diffusions with singular drifts
- Probability/PDE seminar, University of California, Berkeley   Apr. 2018

Invariant measures and (discrete) monlinear Schrödinger equations
- Probability/PDE seminar, University of California, Berkeley $\qquad$ Feb. 2018

Stochastic differential equations with critical drifts
- Probability/PDE seminar, University of California, Berkeley $\qquad$ Sep. 2017

Weak solutions to SDE with distributional drift
- Probability/PDE seminar, University of California, Berkeley $\qquad$ Feb. 2017

Malliavin's proof of Hörmander's theorem
- Probability/PDE seminar, University of California, Berkeley $\qquad$ Mar. 2016

Frobenius numbers of Pythagorean triples
- Meetings of Young Number Theorists, South Korea $\qquad$ Jul. 2014

TEACHING EXPERIENCES	**Graduate Student Instructor**, University of California, Berkeley	
	- Math 53 (Multivariable Calculus)	Fall 2019
	- Math 53 (Multivariable Calculus)	Spring 2019
	- Math 53 (Multivariable Calculus)	Fall 2018
	- Math 53 (Multivariable Calculus)	Fall 2017
	- Math 53 (Multivariable Calculus)	Spring 2017
	- Math 16A (Analytic Geometry and Calculus)	Fall 2016
	- Math 54 (Linear Algebra and Differential Equations)	Spring 2016
	- Math 1A (Calculus)	Fall 2015

PROFESSIONAL ACTIVITIES	**Observer**, 51st International Mathematical Olympiad	2010
	- Coordinator for Problem 6 on South Korea's behalf	
	Main Academic Staff, Korean Mathematical Society	2009 - 2011
	- Problem reviewer and grader for Korean Mathematical Olympiad	
	- Teaching assistant for Korean Mathematical Olympiad Summer and Winter camp	