Terrence George

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RESEARCH INTERESTS Mathematical physics, algebraic combinatorics, integrable systems, discrete geometry

EDUCATION

Brown University 2015-2020
PhD in Mathematics
Advisor: Richard Kenyon

Indian Institute of Science 2011-2025
BS in Mathematics and Physics (GPA: 7.2/8)
Advisor: Manjunath Krishnapur

POSITIONS

Massachussetts Insitute of Technology 2025-2026
Postdoctoral Associate
Mentor: Alexei Borodin

Indian Statistical Institute, Bangalore July-October 2025
Visiting Scientist

University of California, Los Angeles 2023-2025
Hedrick Assistant Adjunct Professor
Mentor: Pavel Galashin

University of Michigan 2020-2023
Postdoctoral Assistant Professor
Mentor: David Speyer

Yale University 2019-2020
Visiting Assistant in Research

PUBLICATIONS

- Integrable dynamics in projective geometry via dimers and triple crossing diagram maps on the cylinder (with Niklas Affolter and Sanjay Ramassamy)
  SIGMA Symmetry Integrability Geom. Methods Appl. (2025).
- Spectral transform for the Ising model
  Ann. Henri Poincaré (2025).
- Electrical networks and Lagrangian Grassmannians (with Sunita Chepuri and David Speyer)
  Ann. Inst. Henri Poincaré Comb. Phys. Interact. (2025).
- Move-reduced graphs on a torus (with Pavel Galashin)
  Trans. Amer. Math. Soc. (2024).
- The twist for electrical networks and the inverse problem
  Int. Math. Res. Not. IMRN (2024).
- Spectra of biperiodic planar networks
  Comm. Math. Phys. (2024).

- The inverse spectral map for dimers (with Alexander Goncharov and Richard Kenyon)
  Math. Phys. Anal. Geom. (2023).
- Discrete dynamics in cluster integrable systems from geometric R-matrix transformations (with Sanjay Ramassamy)
  Comb. Theory (2023).
- The cluster modular group of the dimer model (with Giovanni Inchiostro)
  Ann. Inst. Henri Poincaré Comb. Phys. Interact. (2023).
- Grove arctic curves from periodic cluster modular transformations
  Int. Math. Res. Not. IMRN (2021).

PREPRINTS

- Multiple cluster algebra structures for triple crossing diagram maps I: theoretical framework (with Niklas Affolter, Max Glick and Sanjay Ramassamy).
- Dimers and Beauville integrable systems (with Giovanni Inchiostro).

IN PREPARATION

- Multiple cluster algebra structures for triple crossing diagram maps II: applications (with Niklas Affolter, Max Glick and Sanjay Ramassamy).
- Dimers and tropical integrable systems (with Pavel Galashin).
- Toric compactifications for analytical combinatorics (with Yuliy Baryshnikov, Alperen Ergür, Stephen Gillen, Erica Liu, Stephen Melczer, and Robin Pemantle).

GRANTS AND FELLOWSHIPS

NSF Grant 2512154 (with Zhongyang Li)	2025
AMS–Simons Travel Grant	2023-2026
DAAD WISE summer fellowship	2014
KVPY fellowship	2011-2015

TALKS

- Colloquium, The Institute of Mathematical Sciences, Chennai 2025
- Seminar, Tata Institute of Fundamental Research-CAM, Bangalore 2025
- Colloquium, Tata Institute of Fundamental Research, Mumbai 2025
- Colloquium, Indian Statistical Institute, Bangalore 2025
- Information, Geometry and Physics seminar, Caltech 2025
- Conference: Discrete Differential Geometry and Dimers, Berlin 2024
- Workshop I: Statistical Mechanics and Discrete Geometry, IPAM 2024
- Geometry, Statistical Mechanics, and Integrability Tutorials, IPAM 2024
- Combinatorics Forum, UCLA 2023
- Discrete Differential Geometry Seminar, TU Berlin 2023
- Dimers2023: DIMERS ANR final conference, Sorbonne 2023
- Algebra and Combinatorics seminar, Indian Institute of Science 2023
- Banff International Research Station workshop: Analytic and Probabilistic Combinatorics 2022
- Seminar, Tata Institute of Fundamental Research-CAM, Bangalore 2022
- Colloquium, Indian Statistical Institute, Bangalore 2022
- Conference: Combinatorial algebraic geometry-real and tropical, ICTS 2022
- Integrable Probability seminar, MIT 2022

- Joint Math Meetings: Combinatorial applications of computational geometry and algebraic topology 2022
- Combinatorics seminar, University of Minnesota 2022
- Combinatorics seminar, UCLA 2021
- Random Matrix Theory seminar, KTH Royal Institute of Technology 2021
- Combinatorics seminar, University of Michigan 2021
- Algebraic and Enumerative Combinatorics seminar, University of Waterloo 2021
- Clusters and Geometry seminar, Yale University 2021
- Oberwolfach Mini-Workship: Dimers, Ising and Spanning Trees beyond the Critical Isoradial Case 2020
- Combinatorics seminar, University of Michigan 2020
- Probability seminar, Cornell University 2020
- Combinatorics seminar, Dartmouth College 2020
- Combinatorics seminar, University of Michigan 2019
- Integrable Probability seminar, Columbia University 2019
- Combinatorics seminar, Yale University 2019
- Algebra and Combinatorics seminar, Indian Institute of Science 2019
- Conference: Universality in random structures: Interfaces, matrices, sandpiles, ICTS 2019
- Seminar, Indian Institute of Science 2018
- Bangalore Probability Seminar, Indian Statistical Institute, Bangalore 2018
- Discrete Mathematics seminar, Brown University 2018

TEACHING

University of California, Los Angeles

Math 206A: Topics in Combinatorics	Spring 2025
Math 184: Enumerative Combinatorics	Spring 2025
Math 32B: Calculus of Several Variables	Winter 2025
Math 32B: Calculus of Several Variables	Fall 2024
Math 180: Graph Theory	Winter 2024
Math 61: Introduction to Discrete Structures	Winter 2024
Math 218A: Probabilistic Method	Fall 2023
Math 180: Graph Theory	Fall 2023

University of Michigan

Math 465: Introduction to Combinatorics (two sections)	Winter 2023
Math 115: Calculus I (two sections)	Fall 2022
Math 465: Introduction to Combinatorics (two sections)	Winter 2022
Math 115: Calculus I (two sections)	Fall 2021
Math 465: Introduction to Combinatorics (two sections)	Winter 2021
Math 115: Calculus I (two sections)	Fall 2020

Brown University

Math 90: Introductory Calculus I	Fall 2018
Math 200: Intermediate Calculus (Teaching Assistant)	Fall 2017

Math 200: Intermediate Calculus (Teaching Assistant) Spring 2017
Math 100: Introductory Calculus I (Teaching Assistant) Fall 2016

MENTORING

University of Michigan Math 399: Independent study
Chang Wang, Graph theory.

Brown University Directed Reading program
Jackson Markey, Enumerative geometry and string theory.

SERVICE

Organization

Perfectly matched perspectives on statistical mechanics, combinatorics and geometry: a conference in honor of Richard Kenyon's 61st birthday 2025
UCLA Combinatorics Forum 2023-present
Southern California Discrete Mathematics Symposium (SoCalDM) 2024
University of Michigan Combinatorics Learning Seminar 2022-2023
Brown University Discrete Mathematics Seminar 2018-2019

Refereeing

Algebraic Combinatorics, Annales Henri Lebesgue, Canadian Journal of Mathematics, Combinatorial Theory, Communications of the AMS, Electronic Journal of Combinatorics, FPSAC, Indian Journal of Pure and Applied Mathematics, OPAC, Probability and Mathematical Physics, Selecta Mathematica, Transactions of the AMS.