CURRICULUM VITÆ

Latest update : September 2026

CNRS researcher
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Past academic positions

2018-2019 : Postdoctoral researcher at the mathematics department of École normale supérieure.

2017-2018 : Postdoctoral researcher at the mathematics department of École normale supérieure de Lyon.

Education

2013-2017 : PhD in mathematics at Brown University, under the supervision of Richard Kenyon.

2009-2013 : Student at École Normale Supérieure (ENS) in Paris.

2011-2012 : Master in probability at Université Paris-Sud 11.

2009-2010 : BSc and Honors in mathematics (joint program between ENS and Université Paris Diderot).

2006-2009 : Highly selective classes in science to prepare for the competitive exams to the "Grandes Écoles" at lycée Henri-IV in Paris.

2005-2006 : Business preparatory course at lycée Henri-IV in Paris.

Preprints and publications

24. Multiple cluster algebra structures for TCD maps I : theoretical framework
Niklas Affolter, Terrence George, Max Glick, Sanjay Ramassamy
Preprint.

23. Wall-crossing phenomenon for the liquid bin model
Sanjay Ramassamy, Benjamin Terlat
To appear in Annales de l'Institut Henri Poincaré D.

22. Freezing in the infinite-bin model
Bastien Mallein, Sanjay Ramassamy, Arvind Singh
Annales Henri Lebesgue, 8, 635-660, 2025.

21. Integrable dynamics in projective geometry via dimers and triple crossing diagram maps on the cylinder.
Niklas Affolter, Terrence George, Sanjay Ramassamy
SIGMA Symmetry, Integrability and Geometry : Methods and Applications, 21, #40, 2025.

20. Fluctuations in the Aztec diamonds via a space-like maximal surface in Minkowski 3-space
Dmitry Chelkak, Sanjay Ramassamy
Confluentes Mathematici, 16, 1-17, 2024.

19. Last passage percolation and limit theorems in Barak-Erdős directed random graphs and related models
Sergey Foss, Takis Konstantopoulos, Bastien Mallein, Sanjay Ramassamy
Probability Surveys, 21, 67-170, 2024.

18. Vector-relation configurations and plabic graphs
Niklas Affolter, Max Glick, Pavlo Pylyavskyy, Sanjay Ramassamy
Selecta Mathematica, New Series, 30(1), #P9, 2024.
Extended abstract published in the proceedings of the 2020 conference on Formal Power Series and Algebraic Combinatorics.

17. Cube moves for s-embeddings and α-realizations
Paul Melotti, Sanjay Ramassamy, Paul Thévenin
Annales de l'Institut Henri Poincaré D, 10(4), 781-817, 2023.

16. Discrete dynamics in cluster integrable systems from geometric R-matrix transformations
Terrence George, Sanjay Ramassamy
Combinatorial Theory, 3(2), #12, 2023.

15. Estimation of the last passage percolation constant in a charged complete directed acyclic graph via perfect simulation
Sergey Foss, Takis Konstantopoulos, Bastien Mallein, Sanjay Ramassamy
ALEA, Latin American Journal of Probability and Mathematical Statistics, 20, 547-560, 2023.

14. Dimers and circle patterns
Richard Kenyon, Wai Yeung Lam, Sanjay Ramassamy, Marianna Russkikh
Annales Scientifiques de l'ENS, 55(3), 863-901, 2022.

13. Configurations of points and lines for perpendicular bisectors of convex cyclic polygons
Paul Melotti, Sanjay Ramassamy, Paul Thévenin
Electronic Journal of Combinatorics, 29(1), #P1.59, 2022.

12. Barak-Erdős graphs and the infinite-bin model
Bastien Mallein, Sanjay Ramassamy
Annales de l'Institut Henri Poincaré, Probability and Statistics, 57(4), 1940-1967, 2021.

11. Laminations of a graph on a pair of pants
Sanjay Ramassamy
Bulletin of the London Mathematical Society, 52(6), 1038-1052, 2020.

10. Extensions of partial cyclic orders and consecutive coordinate polytopes
Arvind Ayyer, Matthieu Josuat-Vergès, Sanjay Ramassamy
Annales Henri Lebesgue, 3, 275-297, 2020.

9. Miquel dynamics for circle patterns
Sanjay Ramassamy
International Mathematics Research Notices, 2020(3), 813-852, 2020.

8. The Foata correspondence, cycle lengths and anomalies
Sanjay Ramassamy
Journal of Statistical Mechanics : Theory and Experiment, 2020(1), 013205, 2020.

7. Two-sided infinite-bin models and analyticity for Barak-Erdős graphs
Bastien Mallein, Sanjay Ramassamy
Bernoulli, 25(4B), 3479-3495, 2019.

6. The Hilbert-Galton board
   Arvind Ayyer, Sanjay Ramassamy
   ALEA, Latin American Journal of Probability and Mathematical Statistics, 15(2), 755-774, 2018.

5. A first integrability result for Miquel dynamics
   Alexey Glutsyuk, Sanjay Ramassamy
   Journal of Geometry and Physics, 130, 121-129, 2018.

4. Extensions of partial cyclic orders, Euler numbers and multidimensional boustrophedons
   Sanjay Ramassamy
   Electronic Journal of Combinatorics, 25(1), #P1.66, 2018.

3. Modular periodicity of the Euler numbers and a sequence by Arnold
   Sanjay Ramassamy
   Arnold Mathematical Journal, 3(4), 519-524, 2017.

2. Dimers on Rail Yard Graphs
   Cédric Boutillier, Jérémie Bouttier, Guillaume Chapuy, Sylvie Corteel, Sanjay Ramassamy
   Annales de l'Institut Henri Poincaré D, 4(4), 479-539, 2017.

1. Coupling any number of balls in the infinite-bin model
   Ksenia Chernysh, Sanjay Ramassamy
   Journal of Applied Probability, 54(2), 540-549, 2017.

Talks at conferences/programs/workshops and lectures

February 2026 : Workshop on Mathematical Physics at the SwissMAP Research Station in Les Diablerets.

December 2025 : First reunion conference of the IPAM program on "Geometry, Statistical Mechanics, Integrability" at the UCLA Lake Arrowhead Conference Center.

June 2025 : Conference "Perfectly matched perspectives on statistical mechanics, combinatorics and geometry" at CIRM.

June 2024 : Conference "The joy of integrable combinatorics" at IPhT.

June 2024 : Colloquium of the IPAM Lake Arrowhead spring 2024 retreat.

March 2024 : Mini-course on "Discrete integrable systems" at IPAM (joint with Niklas Affolter).

September 2022 : Workshop on "Discrete geometric structures" at the Technical University of Vienna.

May 2022 : Seminar of the program on "Randomness, Integrability and Universality" at GGI, Florence.

March 2022 : Spring meeting of the "Dimers" ANR group at the Claude Bernard University Lyon 1.

September 2021 : Royal Statistical Society Applied probability section meeting on "Dimers and related models".

March 2021 : Spring 2021 AMS Eastern Sectional meeting.

August 2020 : Contributed talk at the "Bernoulli-IMS One World Symposium".

August 2020 : Applied probability online workshop, hosted by Novosibirsk State University.

February 2020 : Lecture series at the University of Tokyo.

November 2019 : Workshop on "Dimers, Ising model and their interactions" at Banff International Research Station.

August 2019 : Applied probability workshop at Novosibirsk State University.

July 2019 : Mini-symposium on "Integrable systems and discrete dynamics" at ICIAM, Valencia.

February 2019 : Journées de combinatoire de Bordeaux.

January 2019 : Workshop on "Integrable probability and combinatorics" at ICTS, Bangalore.

November 2018 : 13th conference on "Symmetries and integrability of difference equations" in Fukuoka.

June 2018 : "Discrete structures" day at LIP, ENS Lyon.

March 2018 : Contributed talk at the 80th "Séminaire Lotharingien de Combinatoire" at the Claude Bernard University Lyon 1.

February 2018 : Contributed talk at the conference "Dynamics in Siberia" at the Sobolev Institute, Novosibirsk.

February 2018 : Tokyo-Lyon conference in mathematics at the University of Tokyo.

November 2017 : Journée cartes at École Polytechnique, Palaiseau.

August 2017 : Workshop on "Integrable Models in Statistical Mechanics, Limit Shapes and Combinatorics" at the Euler Institute, Saint-Petersburg.

July 2017 : Contributed talk at the conference on "Finite-dimensional integrable systems in geometry and mathematical physics" at CRM, Barcelona.

January 2017 : Research seminar of the program on "Combinatorics and interactions" at IHP, Paris.

June 2016 : Workshop on "Integrability and Near-Integrability in Mechanics and Geometry" at CMO, Oaxaca.

June 2015 : Seminar of the program on "Statistical Mechanics, Integrability and Combinatorics" at GGI, Florence.

Seminar talks

2026 : Lyon 1 (Mathematical physics).

2024 : Denver University (Analysis and dynamics), IHP (Flajolet seminar in combinatorics).

2023 : University of Connecticut (Probability and data science colloquium).

2022 : Hamiltonian systems online seminar, Paris-Dauphine (Analysis-probability), IHP (Random graphs and matrices).

2021 : Yale (Clusters and geometry), LPTMS Orsay, IPhT (Statistical physics and mathematical physics).

2020 : IECL/LPCT Nancy, IHP (algorithmic and combinatorial geometry).

2019 : IISc Bangalore (Algebra and combinatorics), IPhT (Mathematical physics), LPTHE (Mathematical physics and statistical physics), LIPN Paris 13 (Combinatorics), TU Berlin (Discrete geometry and dynamics), Paris-Diderot (Modélisation), TU Vienna (Geometry), LAPTh Annecy.

2018 : Lyon 1 (Geometry), Avignon (Dynamical systems, analysis and geometry), IPhT (Mathematical physics), LPTHE (Mathematical physics and statistical physics), Chiba (Mathematical physics), Sobolev Institute (Probability), Moscow State University (Geometry, topology and mathematical physics), Skoltech Center for Advanced Studies, Paris-Diderot (Enumerative and analytic combinatorics), EPFL (Probability and Stochastic Processes), LPTM Cergy-Pontoise, Polytechnique/Paris-Sud (Combinatorics), Sorbonne Université (Probability), Brown (Discrete math), UMass Amherst (Discrete math), Brandeis (Combinatorics), Dartmouth (Combinatorics).

2017 : Paris 13 (Probability and statistics), Paris-East (Probability), ENS Lyon (Geometry, groups and dynamics), Geneva (Mathematical physics).

2016 : University of Connecticut (Probability), Brown (Probability), ENS Lyon/Lyon 1 (Probability), Paris-Sud (Probability and Statistics).

2015 : Cambridge (Probability).

2014 : Brown (Discrete math).

2013 : Heriot-Watt (Probability).

Short- and long-term visits

September-October 2026	: Participant in the program on "Statistical Mechanics and Combinatorics of Discrete Planar Structures" at ESI (Vienna).
October 2024-November 2024	: Organiser of the program "Discrete Integrable Systems : Difference Equations, Cluster Algebras and Probabilistic Models" at ICTS (Bangalore).
March-June 2024	: Organiser of the program on "Geometry, Statistical Mechanics, Integrability" at IPAM (Los Angeles).
October-November 2022	: Visitor at the University of Vienna.
May 2022	: Participant in the program on "Randomness, Integrability and Universality" at GGI (Florence).
February 2020	: Visitor at the University of Tokyo.
October 2019	: Visitor at the Technical University of Vienna.
September 2019	: Visitor at the Technical University of Berlin.
August 2019	: Visitor at Novosibirsk State University.
February 2019	: Visitor at Chiba University.
January 2019	: Visitor at the Indian Institute of Science (Bangalore).
September 2018	: Visitor at Brown University (Providence).
March 2018	: Visitor at the Higher School of Economics (Moscow).
January-March 2017	: Participant in the program on "Combinatorics and interactions" at IHP (Paris).
August-December 2015	: Visitor at the Statistical Laboratory (Cambridge).
May-July 2015	: Participant in the program on "Statistical Mechanics, Integrability and Combinatorics" at GGI (Florence).
February-May 2015	: Participant in the program on "Phase transitions and emergent properties" at ICERM (Providence).

June 2014 : Participant in the program on "Combinatorics, geometry and physics" at ESI (Vienna).

February-May 2012 : Participant in the program on "Random spatial processes" at MSRI (Berkeley).

Organisation

December 2025 : Co-organiser of the first reunion conference of the IPAM program "Geometry, Statistical Mechanics, Integrability" at the UCLA Lake Arrowhead Conference Center.

October 2024-November 2024 : Co-organiser of the program "Discrete Integrable Systems : Difference Equations, Cluster Algebras and Probabilistic Models" at ICTS in Bangalore.

March 2024-June 2024 : Co-organiser of the program "Geometry, Statistical Mechanics, Integrability" at IPAM in Los Angeles.

March 2024 : Co-organiser of the workshop "Statistical Mechanics and Discrete Geometry" at IPAM in Los Angeles.

October 2022 : Co-organiser of a meeting of the ANR Dimers at IPhT.

July 2022 : Co-organiser of a "Journée cartes" at IPhT.

September 2021 : Co-organiser of the online junior conference on "Random graphs and interacting particle systems".

November 2020 : Co-organiser of the mini-workshop "Dimers, Ising and spanning trees beyond the critical isoradial case" at MFO in Oberwolfach.

June 2020 : Co-organiser of the conference "Random networks and interacting particle systems" at ENS (cancelled due to the Covid-19 epidemic).

October 2019 : Organiser of a two-day meeting of the ANR Dimers at Sorbonne Université.

November 2018 : Co-organiser of a "Journée cartes" at ENS.

October 2017 : Organiser of a "Journée cartes" at ENS Lyon.

January 2016-May 2016 : Co-organiser of the reading group on "Dimers and spectral curves" at Brown University.

February 2015-May 2015 : Co-organiser of the research seminar at ICERM for the program on "Phase transitions and emergent properties".

2013-2016 : Co-organiser of the discrete math seminar at Brown University.

March 2013-June 2013 : Organiser of the student probability seminar at ENS.

May 2013 : Organiser of the event "Des Probas de la Rue d'Ulm" at ENS.

Students

2023-2026 : Vladimir Bošković, PhD student (co-advised with Cédric Boutillier).

2023 : Vladimir Bošković, Master student.

2021-2024 : Benjamin Terlat, PhD student (co-advised with Arvind Singh).

2021 : Benjamin Terlat, Master student.

Administrative service

2024-2026 : IPhT representative with the Hadamard doctoral school (EDMH).

2024-2026 : Head of group A (Mathematical physics, string theory, gravitation) at IPhT.

2022-2026 : Member of the IT commission at IPhT.

Teaching

Spring 2016 : Instructor for Introductory Calculus II at Brown University.

Fall 2014 : Teaching assistant for Introductory Calculus II at Brown University.

April 2012 : Speaker at the Marin Math Circle (near San Francisco) on the topic of "Divisibility, primality and modular arithmetics".

2010-2012 : Mathematics tutor for second-year students of highly selective classes in science to prepare for the competitive exams to the "Grandes Écoles" at lycée Henri-IV in Paris.

Skills

Computing : Mathematica, Geogebra.

Languages : French : mother tongue.
Réunion Creole : mother tongue.
English : fluent.
German : advanced.
Spanish : advanced.
Portuguese : intermediate.
Japanese : intermediate.
Italian : beginner.