CURRICULUM VITÆ

Latest update : September 2022

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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

20. Discrete dynamics in cluster integrable systems from geometric R-matrix transformations
Terrence George, Sanjay Ramassamy
Preprint.

19. 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
Preprint.

18. Cross-ratio dynamics and the dimer cluster integrable system
Niklas Affolter, Terrence George, Sanjay Ramassamy
Preprint.

17. Fluctuations in the Aztec diamonds via a Lorentz-minimal surface
Dmitry Chelkak, Sanjay Ramassamy
Preprint.

16. Vector-relation configurations and plabic graphs
Niklas Affolter, Max Glick, Pavlo Pylyavskyy, Sanjay Ramassamy
Preprint.
Extended abstract published in the proceedings of the 2020 conference on Formal Power Series and Algebraic Combinatorics.

15. Cube moves for s-embeddings and α-realizations
Paul Melotti, Sanjay Ramassamy, Paul Thévenin
To appear in Annales de l'Institut Henri Poincaré D.

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

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

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

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 2017-March 2017	: Participant in the program on "Combinatorics and interactions" at IHP (Paris).
August 2015-December 2015	: Visitor at the Statistical Laboratory (Cambridge).
May 2015-July 2015	: Participant in the program on "Statistical Mechanics, Integrability and Combinatorics" at GGI (Florence).
February 2015-May 2015	: Participant in the program on "Phase transitions and emergent properties" at ICERM (Providence).
June 2014	: Stay at the ESI for the program on "Combinatorics, geometry and physics" (Vienna).
February 2012-May 2012	: Member of the "Random spatial processes" program at MSRI (Berkeley).

Organisation

March 2024-June 2024 : Co-organiser of the program "Geometry, Statistical Mechanics, Integrability" 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

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

2021 : Benjamin Terlat, Master student.

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.