

Curriculum Vitæ

Arnaud Marsiglietti

Contact Information

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Research Interests

High-dimensional probability, Convex geometry, Concentration of measure phenomenon, Discrete log-concave probability, Information Theory

Academic Positions

- 2018 – Present **Assistant Professor in Mathematics**, University of Florida.
- 2016 – 2018 **Postdoctoral Associate in Mathematics**, California Institute of Technology, under the supervision of Victoria Kostina.
- 2014 – 2016 **Postdoctoral Associate in Mathematics**, University of Minnesota (IMA), under the supervision of Sergey Bobkov.

Education

- 2011 – 2014 **Ph.D. in Mathematics**, Université Paris-Est Marne-la-Vallée, under the supervision of Matthieu Fradelizi.
Defended on June 24, 2014.
Thesis title: Geometry of convex measures and links with Information Theory.
- 2010 – 2011 **“Agrégation Externe” (Highest level French national competitive examination for recruitment of teachers)**
Specialty: Probability and Statistics.
- 2009 – 2010 **Master in Pure Mathematics: second year**, Université Paris-Est Marne-la-Vallée.
Master thesis titled “Large deviations inequalities for unconditional convex bodies”, under the supervision of Matthieu Fradelizi.
- 2008 – 2009 **Master in Pure Mathematics: first year**, Université Paris-Est Marne-la-Vallée.
Research project titled “Some mathematical pathologies and counterexamples in analysis”, under the supervision of Matthieu Fradelizi.
- 2005 – 2008 **Bachelor of Science in Computer Science and Mathematics**, Université Paris-Est Marne-la-Vallée.

Publications

1. **On a conjecture of Feige for discrete log-concave distributions**,
with A. Alqasem, H. Aravinda and J. Melbourne, **SIAM J. Discrete Math.** (2024), Vol. 38, No. 1, pp. 93-102.
2. **Geometric and functional inequalities for log-concave probability sequences**,
with J. Melbourne, **Discrete Comput Geom** (2023). <https://doi.org/10.1007/s00454-023-00528-7>.
3. **On the equivalence of statistical distances for isotropic convex measures**,
with P. Pandey, **Math. Inequal. Appl.** 25 (2022), no. 3, 881-901.
4. **Concentration inequalities for ultra log-concave distributions**,
with H. Aravinda and J. Melbourne, **Studia Math.** 265 (2022), no. 1, 111-120.
5. **Concentration functions and entropy bounds for discrete log-concave distributions**,
with S. Bobkov and J. Melbourne, **Combin. Probab. Comput.** 31 (2022), no. 1, 54-72.
6. **Entropic CLT for smoothed convolutions and associated entropy bounds**,
with S. Bobkov, **International Mathematics Research Notices**, vol. 2020, No. 21, 8057-8080, 2020.
7. **Further investigations of Rényi entropy power inequalities and an entropic characterization of s -concave densities**,
with J. Li and J. Melbourne, **Geometric Aspects of Functional Analysis: GAFA Israel Seminar (2017-2019)**, B. Klartag and E. Milman (eds.), Lecture Notes in Mathematics, vol. 2256, Springer, 2020.
8. **Local limit theorems for smoothed Bernoulli and other convolutions**,
with S. Bobkov, **Theory of Probability and its Applications**, Vol. 65, No. 1, pp. 79-102, 2020.
9. **Asymptotic behavior of Rényi entropy in the central limit theorem**,
with S. Bobkov, High Dimensional Probability VIII: The Oaxaca Volume, N. Gozlan, R. Latal a, K. Lounici, M. Madiman (eds.), **Progress in Probability**, vol 74. Birkhauser, Cham, pp. 169-200, 2019.
10. **On the entropy power inequality for the Rényi entropy of order $[0,1]$** ,
with J. Melbourne, **IEEE Transactions on Information Theory** 65 (2019), no. 3, 1387-1396.
11. **The convexification effect of Minkowski summation**,
with M. Fradelizi, M. Madiman and A. Zvavitch, **EMS Surv. Math. Sci.** 5 (2018), no. 1, 1-64.
12. **A lower bound on the differential entropy of log-concave random vectors with applications**,
with V. Kostina, **Entropy** 20 (2018), no. 3, Paper No. 185, 24 pp. Special Issue “Entropy and Information Inequalities”.
13. **A note on the convex infimum convolution inequality**,
with N. Feldheim, P. Nayar and J. Wang, **Bernoulli** 24 (2018), no. 1, 257–270.
14. **Variants of the entropy power inequality**,
with S. Bobkov, **IEEE Transactions on Information Theory** 63 (2017), no. 12, 7747–7752.
15. **On the stability of Brunn-Minkowski type inequalities**,
with A. Colesanti and G. Livshyts, **Journal of Functional Analysis.** 273 (2017), no. 3, 1120–1139.
16. **On the Brunn-Minkowski inequality for general measures with applications to new isoperimetric-type inequalities**,
with G. Livshyts, P. Nayar and A. Zvavitch, **Transactions of the American Mathematical Society** 369 (2017), no. 12, 8725–8742.
17. **Borell’s generalized Prékopa-Leindler inequality: a simple proof**,
Journal of Convex Analysis. 24 (2017), no. 3, 807–817.
18. **Do Minkowski averages get progressively more convex?**,
with M. Fradelizi, M. Madiman and A. Zvavitch, **Comptes Rendus Mathématique**, 354 (2016), no. 2, 185–189.

19. **On the improvement of concavity of convex measures,**
Proceedings of the American Mathematical Society, 144 (2016), no. 2, 775–786.
20. **Concavity properties of extensions of the parallel volume,**
Mathematika, 62 (2016), no. 1, 266–282.
21. **A note on an L^p -Brunn-Minkowski inequality for convex measures in the unconditional case,**
Pacific Journal of Mathematics, 277 (2015), no. 1, 187–200.
22. **On the analogue of the concavity of entropy power in the Brunn-Minkowski theory,**
with M. Fradelizi, Advances in Applied Mathematics, 57 (2014), 1–20.

Preprints

1. **A note on statistical distances for discrete log-concave measures,**
with P. Pandey, Preprint, arXiv:2309.03197 [math.PR].
2. **Moments, concentration, and entropy of log-concave distributions,**
with J. Melbourne, Preprint, arXiv:2205.08293 [math.PR].

Conference Papers

1. **Rényi Entropy Power Inequalities for s-concave Densities,**
with J. Li and J. Melbourne, Proceedings 2019 IEEE International Symposium on Information Theory, Paris, France, July 2019.
2. **Entropic Central Limit Theorem for Rényi Entropy,**
with J. Li and J. Melbourne, Proceedings 2019 IEEE International Symposium on Information Theory, Paris, France, July 2019.
3. **New connections between the entropy power inequality and geometric inequalities,**
with V. Kostina, Proceedings 2018 IEEE International Symposium on Information Theory, Vail, Colorado, June 2018.
4. **A Rényi entropy power inequality for log-concave vectors and parameters in $[0,1]$,**
with J. Melbourne, Proceedings 2018 IEEE International Symposium on Information Theory, Vail, Colorado, June 2018.
5. **A lower bound on the differential entropy for log-concave random variables with applications to rate-distortion theory,**
with V. Kostina, Proceedings 2017 IEEE International Symposium on Information Theory, Aachen, Germany, June 2017.

Grants

➤ 2021 – 2026

Simons collaboration grants – Simons Foundation.

Teaching Experience

- 2018 – Present **Instructor**, University of Florida,
(Advanced Probability Theory).
- 2017 – 2018 **Instructor**, California Institute of Technology,
(High-dimensional geometry and links with information theory (1 semester)).
- 2015 – 2016 **Instructor**, University of Minnesota,
(Applied Linear Algebra (1 semester)).
- 2011 – 2014 **Teaching Assistant**, Université Paris-Est Marne-la-Vallée,
(Probability and Statistics (1 semester), Algebra 1 (1 semester), Algebra 2 (1 semester), Analysis 1 (1 semester), Complements in Analysis (1 semester),
Oral examination (1 semester)).
- 2013 – 2014 **Teacher Adviser**, Université Paris-Est Marne-la-Vallée.
(10 students).
- 2007 – 2010 **Tutor in Mathematics**, Université Paris-Est Marne-la-Vallée.
(30 students per year).

Ph.D. Students Supervision

- 2022 – Present **Abdulmajeed Alqasem**.
- 2020 – 2023 **Puja Pandey**. Ph.D. thesis titled “On the Equivalence of Statistical Distances for Isotropic Convex Measures”, defended on June 7, 2023.
- 2020 – 2023 **Heshan Aravinda**. Ph.D. thesis titled “Discrete Log-Concave Distributions, Extreme Points, and Applications”, defended on April 28, 2023.

Ph.D. Committee Member

1. **Cameron Fraize**. Ph.D. thesis titled “Aspects of Algorithmically Random Objects”, under the supervision of Douglas Cenzer and Dana Bartošová. Ph.D. thesis defended at the University of Florida on June 22, 2023.
2. **Xiaohan Zhu**. Ph.D. thesis titled “Robust Control under Distributional Uncertainty and Its Applications”, under the supervision of Xu Sun. Ph.D. thesis defended at the University of Florida on March 28, 2023.
3. **Tapesh Yadav**. Ph.D. thesis titled “Structured Random Matrices”, under the supervision of James Pascoe. Ph.D. thesis defended at the University of Florida on March 22, 2023.
4. **Jason Flynn**. Ph.D. thesis titled “The Effect of Restart on First Passage Processes”, under the supervision of Sergei Pilyugin. Ph.D. thesis defended at the University of Florida on June 15, 2022.
5. **Shuhang Chen**. Ph.D. thesis titled “Stabilization and Acceleration of Reinforcement Learning Algorithms”, under the supervision of William Hager and Sean Meyn. Ph.D. thesis defended at the University of Florida on March 11, 2021.

Conference and Seminar Organization

- Organizer (with Artem Zvavitch) of the special session “Probabilistic and geometric tools in high-dimension” at the Fall 2019 AMS meeting at the University of Florida, November 2019.

Services

- 2020, 2021, 2022 Tenure Track Search Committee.
- 2018, 2019, 2020 Visiting Assistant Professor Search Committee.
- 2018 – Present Graduate Selection Committee.
- 2018 – Present Ph.D. Examination Committee in Probability.
- 2018 – Present French Language Examination.

Refereeing

Journal of Convex Analysis, Geometric Aspects of Functional Analysis (Lecture Notes), International Mathematics Research Notices, Electronic Journal of Combinatorics, Electronic Journal of Probability, Probability Theory and Related Fields, Proceedings of the American Mathematical Society, Journal Pure and Applied Functional Analysis, Combinatorics Probability and Computing, ALEA-Latin American Journal of Probability and Mathematical Statistics, IEEE Transactions on Information theory, Entropy, IEEE International Symposium on Information Theory (ISIT).

Research Networks

- 2011 – Present **GdR AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”**, Research network of the CNRS.
- 2011 – 2015 **ANR GeMeCoD “Geometry of convex and discrete measures”**.

Talks in Conferences

- May 30, 2023 **Entropic Limit Theorems**, Conference in honour of Sergey Bobkov, Université Paul Sabatier, Toulouse, France.
- March 19, 2023 **Equivalence of statistical distances for convex measures**, AMS Meeting – Special Session on High-dimensional Convexity and Probability, Georgia Institute of Technology, USA.
- Oct. 10, 2022 **Moments, concentration, and entropy of log-concave distributions**, Recent Trends in Machine Learning and Risk Management, University of Florida, USA.
- June 11, 2021 **Concavity Properties of the Outer Parallel Volume**, CMS Meeting – New Perspectives on the Brunn-Minkowski Theory, University of Ottawa, Canada.
- March 16, 2021 **Geometric and Functional Inequalities for Log-Concave Probability Sequences**, Workshop on Current trends in Convex Geometry, ALTA Institute of the University of Bremen, Germany.
- Oct. 11, 2020 **Entropic CLT for Smoothed Convolutions and Associated Entropy Bounds**, AMS Meeting – Special Session on Convexity and Probability in High Dimensions, University of Tennessee at Chattanooga.
- Feb. 11, 2020 **Localization technique for discrete log-concave random variables**, BIRS workshop on Geometric Tomography, Banff, Canada.

Talks in Conferences (Continued)

- Oct. 9, 2019 **Version probabiliste d’une conjecture de Bourgain sur la section des corps convexes**, Journées du GDR AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”, Université de Grenoble, France.
- July 11, 2019 **Rényi Entropy Power Inequalities for s-concave Densities**, 2019 IEEE International Symposium on Information Theory, Paris, France.
- July 9, 2019 **Entropic Central Limit Theorem for Rényi Entropy**, 2019 IEEE International Symposium on Information Theory, Paris, France.
- June 8, 2019 **Hyperplane conjecture and central limit theorem**, CMS Meeting – Special Session on Probabilistic Methods in Geometric Functional Analysis and Convexity, University of Regina, Canada.
- Sept. 30, 2018 **Entropy power inequality and central limit theorem for Rényi entropy**, AMS Meeting – Special Session on Convex Geometry and Functional Inequalities, University of Delaware.
- June 21, 2018 **New connections between the entropy power inequality and geometric inequalities**, 2018 IEEE International Symposium on Information Theory, Vail, Colorado, USA.
- June 21, 2018 **A Rényi entropy power inequality for log-concave vectors and parameters in $[0,1]$** , 2018 IEEE International Symposium on Information Theory, Vail, Colorado, USA.
- Oct. 10, 2017 **Sur une borne inférieure de l’entropie de Shannon pour les vecteurs aléatoires log-concaves**, Journées du GDR AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”, Université de Bordeaux.
- June 26, 2017 **A lower bound on the differential entropy for log-concave random variables with applications to rate-distortion theory**, 2017 IEEE International Symposium on Information Theory, Aachen, Germany.
- Oct. 29, 2016 **Do Minkowski averages get progressively more convex?**, AMS meeting – Special Session on Discrete Structures: Analysis and Applications (IMA Reunion), University of St. Thomas.
- June 25, 2016 **Do Minkowski averages get progressively more convex?**, CMS Meeting – Special session on Convex and Discrete Geometry, and Geometric Analysis, University of Alberta.
- March 5, 2016 **On the monotonicity of Minkowski sums towards convexity**, AMS Meeting – Special session on probabilistic and analytic tools in convexity, University of Georgia.
- Oct. 27, 2015 **On the Brunn-Minkowski inequality for convex measures with applications to new isoperimetric inequalities**, Conference “Convexity, probability and discrete structures, a geometric view point”, Université Paris-Est Marne-la-Vallée, France.
- Oct. 23, 2013 **Sur l’analogie de la concavité de l’entropie exponentielle dans la théorie de Brunn-Minkowski**, Journées du Gdr AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”, Université Lyon 1, France.

Talks in Seminars

- Feb. 27, 2023 **Moments, concentration, and entropy of log-concave distributions,** Probability and Analysis Webinar – online.
- Feb. 23, 2023 **Four Problems at the Intersection of Probability, Analysis and Geometry,** Simple Words Seminar, University of Florida.
- Nov. 18, 2022 **Moments, concentration, and entropy of log-concave distributions,** Analysis and Probability Seminar, University of Florida.
- May 31, 2022 **Equivalence entre métriques pour les mesure convexes,** Informal Analysis Seminar, Université Paris-Est Marne-la-Vallée, France.
- March 10, 2022 **On the equivalence of statistical distances for isotropic convex measures,** Probability Seminar, CIMAT, Mexico.
- Oct. 22, 2021 **Self-averages Minkowski sum and convexity,** Analysis Seminar, University of Florida.
- April 28, 2021 **Geometric and functional inequalities for log-concave probability sequences,** Measure Theory Seminar, Kent State University.
- March 10, 2021 **Geometric and functional inequalities for log-concave probability sequences,** Analysis seminar, University of Florida.
- Feb. 1, 2021 **An introduction to high-dimensional probability,** UF University Math Society, University of Florida.
- Sept. 30, 2020 **Entropic CLT for Smoothed Convolutions and Associated Entropy Bounds,** Measure Theory seminar, Kent State University.
- March 11, 2020 **Probabilistic approach to Bourgain’s hyperplane conjecture,** Analysis seminar, University of Florida.
- Jan. 16, 2020 **Probabilistic approach to Bourgain’s hyperplane conjecture,** Stochastics seminar, Georgia Tech.
- Oct. 28, 2019 **An introduction to high-dimensional probability,** UF University Math Society, University of Florida.
- May 7, 2019 **Autour de l’inégalité de l’entropie “power” pour l’entropie de Rényi,** Probability seminar, Université Paris-Est, France.
- May 31, 2018 **Entropic inequalities and the hyperplane conjecture,** Information Theory working seminar, Caltech.
- April 5, 2018 **New connections between the entropy power inequality and geometric inequalities,** Theory of Computing seminar, Caltech.
- March 1, 2018 **The Brunn-Minkowski inequality for log-concave probability distributions,** Probability seminar, UCLA.
- Feb. 13, 2017 **Sur l’inégalité de Brunn-Minkowski pour les mesures log-concaves,** Analysis and Geometry seminar, Aix-Marseille Université, France.
- Feb. 9, 2017 **Phénomènes de concentration pour des vecteurs aléatoires satisfaisant une condition de décroissance des queues,** Probability and Statistics seminar, Université Paris VII, France
- Feb. 7, 2017 **Sur l’inégalité de l’entropie exponentielle pour l’entropie de Rényi,** PDE and Analysis seminar, Université Lyon 1, France.

Talks in Seminars (Continued)

- Nov. 4, 2016 **The entropy power inequality for the Rényi entropy**, Probability seminar, University of Minnesota.
- Nov. 1, 2016 **The entropy power inequality for the Rényi entropy**, Analysis and Probability seminar, Case Western Reserve University.
- Oct. 5, 2016 **On the Brunn-Minkowski inequality for log-concave measures**, Analysis and Probability seminar, University of Michigan.
- Sept. 29, 2016 **The entropy power inequality for the Rényi entropy**, Theory of Computing seminar, Caltech.
- March 11, 2016 **On the analogue of the monotonicity of entropy in the Brunn-Minkowski theory**, Probability seminar, University of Minnesota.
- March 3, 2016 **On the analogue of the monotonicity of entropy in the Brunn-Minkowski theory**, Stochastic seminar, Georgia Institute of Technology.
- Feb. 15, 2016 **Some relationships between the Information Theory and Convex Geometry**, IMA Postdoc seminar, University of Minnesota.
- Sept. 15, 2015 **IMA Postdoc: Show and Tell**, University of Minnesota.
- May 5, 2015 **The Brunn-Minkowski inequality - Its refinements and extensions - Part II**, IMA Postdoc seminar, University of Minnesota.
- March 18, 2015 **An L^p -Brunn-Minkowski inequality for convex measures**, Measure Theory seminar, Kent State University.
- Nov. 26, 2014 **The analogue of the Hyperplane conjecture in Information Theory**, Stochastic seminar, University of Minnesota.
- Oct. 28, 2014 **The Brunn-Minkowski inequality - Its refinements and extensions**, IMA Postdoc Seminar, University of Minnesota.
- Sept. 16, 2014 **IMA Postdoc: Show and Tell**, University of Minnesota.
- June 16, 2014 **Propriétés de concavité du volume parallèle**, Analysis and Geometry seminar, Université d'Aix-Marseille, France.
- June 6, 2014 **Introduction aux mesures convexes**, Ph.D. Students seminar, Université de Franche-Comté, France.
- May 1, 2014 **A Brunn-Minkowski type inequality for convex measures**, Measure Theory seminar, Kent State University.
- April 24, 2014 **On the analogue of the concavity of entropy power in the Brunn-Minkowski theory**, Analysis seminar, University of Minnesota.
- April 15, 2014 **On improvement of the concavity of convex measures**, Analysis seminar, University of Missouri.
- April 11, 2014 **Concavity properties of an extension of the parallel volume**, Linear Analysis seminar, Texas A&M University.
- March 11, 2014 **Une preuve de l'EPI via des méthodes de réarrangements**, Analysis, Probability and Statistics working group, Université Paris-Est Marne-la-Vallée, France.

Talks in Seminars (Continued)

- Jan. 30, 2014 **Propriétés de concavité du volume parallèle étendu**, Functional Analysis seminar, Université Pierre et Marie Curie (Paris VI), France.
- Nov. 20, 2013 **Quelques extensions de l'inégalité de Brunn-Minkowski**, Ph.D. Students seminar, Université Paris-Est Créteil, France.
- Sept. 1, 2013 **On the analogue of the concavity of entropy power in the Brunn-Minkowski theory**, Asymptotic Geometric Analysis seminar, Tel-Aviv University, Israel.
- April 2, 2013 **Sur les traces de la théorie de la communication de Hartley-Shannon**, Analysis, Probability and Statistics working group, Université Paris-Est Marne-la-Vallée, France.
- Dec. 18, 2012 **Quelques analogies entre la théorie de l'information et la théorie de Brunn-Minkowski**, Analysis, Probability and Statistics working group, Université Paris-Est Marne-la-Vallée, France.
- Feb. 2, 2012 **Inégalités additives et Brunn-Minkowski**, Convexity and Probability working group, Université Pierre et Marie Curie (Paris VI), France.

Invitations

- March, 2022 **Invited for 9 days by James Melbourne**, CIMAT, Mexico.
- Nov., 2016 **Invited for 4 days by Sergey Bobkov**, University of Minnesota.
- Nov., 2016 **Invited for 4 days by Elisabeth Werner**, Case Western Reserve University.
- Oct., 2016 **Invited for 4 days by Beatrice Vritsiou**, University of Michigan.
- June, 2016 **Invited for 7 days by Victoria Kostina**, California Institute of Technology.
- March, 2016 **Invited for 5 days by Galyna Livshyts**, Georgia Institute of Technology.
- March, 2015 **Invited for 8 days by Artem Zvavitch**, Kent State University.
- April, 2014 **Invited for 7 days by Artem Zvavitch**, Kent State University.
- April, 2014 **Invited for 8 days by Sergey Bobkov**, University of Minnesota.
- April, 2014 **Invited for 5 days by Peter Pivovarov**, University of Missouri.
- April, 2014 **Invited for 7 days by Grigoris Paouris**, Texas A&M University.
- July-Sept., 2013 **Invited for 2 months by Bo'az Klartag**, Tel-Aviv University.

Regular Participation in Working Groups and Seminars (2016 - 2018)

- Computing and Mathematical Sciences Colloquium, every Monday afternoon at Caltech.
- IST Lunch Bunch Seminar, every Tuesday noon at Caltech.
- TCS+ Talk Seminar, every Wednesday morning at Caltech.
- Theory of Computing Seminar, every Thursday afternoon at Caltech.

Regular Participation in Working Groups and Seminars (2014 - 2016)

- Working seminar “Concentration of Measure Phenomenon”, every Monday morning and Wednesday morning at the University of Minnesota.
- Asymptotic Analysis Seminar, every Tuesday morning at the University of Minnesota.
- IMA Postdoc Seminar, every Tuesday afternoon at the University of Minnesota.
- Annual Program Seminar, every Thursday afternoon at the University of Minnesota.
- Probability Seminar, every Friday afternoon at the University of Minnesota.

Regular Participation in Working Groups and Seminars (2011 - 2014)

- Working Group “ASPRO Analyse, probabilités et statistiques”, every Tuesday morning at the University Paris-Est Marne-la-Vallée.
- Seminar “Analyse fonctionnelle”, every Thursday morning at the University Pierre et Marie Curie (Paris VI).
- Working Group “Convexité et probabilités”, every Thursday afternoon at the University Pierre et Marie Curie (Paris VI).
- Working Group “C-TOP Courbure, transport optimal, et probabilités”, First Thursday every month at the Institut Henri Poincaré in Paris.

Participation in Conferences

- May 29-June 2, 2023 **Conference in honour of Sergey Bobkov**, Université Paul Sabatier, Toulouse, France.
- March 18-19, 2023 **Meetings of the American Mathematical Society**, Georgia Institute of Technology.
- Oct. 10-11, 2022 **Recent Trends in Machine Learning and Risk Management**, University of Florida.
- June 7-11, 2021 **Meetings of the Canadian Mathematical Society**, University of Ottawa, Canada.
- March 22-26, 2021 **Workshop on High Dimensional Measures: Geometric and Probabilistic Aspects**, Hausdorff Research Institute for Mathematics, Germany.
- March 15-19, 2021 **Workshop on Current trends in Convex Geometry**, ALTA Institute of the University of Bremen, Germany.
- Feb. 22-26, 2021 **Workshop on High Dimensional Spatial Random Systems**, Hausdorff Research Institute for Mathematics, Germany.
- Jan. 11-15, 2021 **Winter School on the Interplay between High-Dimensional Geometry and Probability**, Hausdorff Research Institute for Mathematics, Germany.
- Oct. 9-11, 2020 **Meetings of the American Mathematical Society**, University of Tennessee at Chattanooga.
- Feb. 9-14, 2020 **BIRS workshop on Geometric Tomography**, Banff, Canada.
- Nov. 1-3, 2019 **Meetings of the American Mathematical Society**, University of Florida.
- Oct. 7-9, 2019 **Journées du GDR AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”**, Université de Grenoble, France.
- July 7-12, 2019 **2019 IEEE International Symposium on Information Theory**, Paris, France.
- June 7-10, 2019 **Meetings of the Canadian Mathematical Society**, University of Regina, Canada.
- Sept. 28-30, 2018 **Meetings of the American Mathematical Society**, University of Delaware.
- June 25-29, 2018 **Summer School – Information Theory and Convex Analysis**, IHP, Paris, France.
- June 17-22, 2018 **2018 IEEE International Symposium on Information Theory**, Vail, Colorado, USA.
- Nov. 13-17, 2017 **Geometric Functional Analysis and Applications**, MSRI, Berkeley.
- Oct. 9-11, 2017 **Journées du GDR AFHP “Analyse Fonctionnelle, Harmonique et Probabilités”**, Université de Bordeaux, France.

Participation in Conferences (Continued)

- Aug. 21-25, 2017 **Introductory Workshop: Phenomena in High Dimensions**, MSRI, Berkeley.
- June 25-30, 2017 **2017 IEEE International Symposium on Information Theory**, Aachen, Germany.
- Oct. 28-30, 2016 **Meetings of the American Mathematical Society**, University of St. Thomas.
- June 24-27, 2016 **Meetings of the Canadian Mathematical Society**, University of Alberta, Canada.
- March 5-6, 2016 **Meetings of the American Mathematical Society**, University of Georgia.
- Jan. 25-29, 2016 **Optimization and Parsimonious Modeling**, IMA, University of Minnesota.
- Oct. 26-30, 2015 **Convexity, Probability and Discrete Structures, a Geometric View Point**, Université Paris-Est Marne-la-Vallée, France.
- June 25-27, 2015 **Reflected Brownian Motions, Stochastic Networks, and their Applications**, IMA, University of Minnesota.
- May 28-31, 2015 **Workshop for Women in Analysis and PDE**, IMA, University of Minnesota.
- May 18-22, 2015 **Graphical Models, Statistical Inference, and Algorithms (GRAM-SIA)**, IMA, University of Minnesota.
- Apr.27-May 1, 2015 **Analytical Tools in Probability and Applications**, IMA, University of Minnesota.
- Apr. 13-17, 2015 **Information Theory and Concentration Phenomena**, IMA, University of Minnesota.
- March 14-15, 2015 **Informal Analysis Seminar**, Kent State University.
- Feb. 23-27, 2015 **Convexity and Optimization: Theory and Applications**, IMA, University of Minnesota.
- Nov. 10-14, 2014 **Geometric and Enumerative Combinatorics**, IMA, University of Minnesota.
- Oct. 31-Nov 2, 2014 **Fourth Abel Conference: A Celebration of Yakov G. Sinai**, IMA, University of Minnesota.
- Oct. 17-19, 2014 **Workshop Informal Analysis and Probability Seminar**, University of Michigan.
- Sept.29-Oct.3, 2014 **Additive and Analytic Combinatorics**, IMA, University of Minnesota.

Participation in Conferences (Continued)

- Sept. 8-12, 2014 **Probabilistic and Extremal Combinatorics**, IMA, University of Minnesota.
- Oct. 21-23, 2013 **Journées du Gdr AFHP “Analyse Fonctionnelle Harmonique et Probabilités”**, Université Lyon 1, France.
- Sept. 23-27, 2013 **Conference on Convex Geometry**, Centro Internacional de Encuentros Matemáticos, Castro Urdiales, Spain.
- May 27-31, 2013 **Threshold phenomena and random graphs**, Institut Henri Poincaré, Paris, France.
- Jan 7-11, 2013 **Convexity and probability in high dimensions**, Institut Henri Poincaré, Paris, France.
- Oct. 29-31, 2012 **Journées du Gdr AFHP “Analyse Fonctionnelle Harmonique et Probabilités”**, Université Paris-Est Marne-la-Vallée, France.
- June 25-29, 2012 **Phenomena in high dimensions in geometric analysis, random matrices, and computational geometry**, Roscoff, France.
- June 18-22, 2012 **Optimal Transport (to) Orsay**, Université Paris-Sud, France.
- May 31-June 1, 2012 **Phénomènes de seuil via l’analyse harmonique discrète et application aux problèmes de satisfaction de contraintes**, Institut Henri Poincaré, Paris, France.
- Jan. 9-13, 2012 **Around the Fourier-Entropy-Influence conjecture**, Université Paris-Est Marne-la-Vallée, France.
- Oct. 19-21, 2011 **Journées du Gdr AFHA “Analyse Fonctionnelle Harmonique et Applications”**, Université Blaise Pascal - Clermont-Ferrand, France.
- Sept. 28-30, 2011 **Workshop EVOL**, Université Paul-Sabatier - Toulouse 3, France.
- Feb. 2-8, 2011 **Type, cotype and martingales on Banach spaces and discrete spaces**, Institut Henri Poincaré, Paris, France.
- May 17-21, 2010 **Probability and Geometry in High Dimensions**, Université Paris-Est Marne-la-Vallée, France.