Domenico Marinucci *(MSc, PhD)*

Current Position

Full Professor of Probability and Mathematical Statistics (MAT06)

Department of Mathematics, University of Rome "Tor Vergata"

Chairman of the Rome Centre on Mathematics for Modeling and Data Sciences - RoMaDS (2022-)

Via della Ricerca Scientifica, 1, 00133 Roma, Italy

Email address: marinucc "at" mat "dot" uniroma2 "dot" it

Some Awards and Honours

Component of the Scientific Board of INdAM (Italian National Institute for High-Mathematics), (2024-2028)

Top Mathematics Scientists in Italy – see research.com (2023)

Principal Investigator of the Miur Excellence Project Grafia (2023-2026)

Principal Investigator of the Miur Excellence Project Math@Tov (2020-2022)

Invited Speaker, European Congress of Mathematics, 2021

Annals Quadfecta, 2018 (see here)

Editor in Chief of the Electronic Journal of Statistics (IMS), 2016-2021

ERC Grantholder *PASCAL (277742)* 2011-2016 (see webpage and workshop)

Some Further Administrative and Editorial Duties

Vice-President for Statistics of the International Astrostatistics Association 2018-2020

Director of the Department of Mathematics 2007-2015

Academic Senate 2012-2015

Component of the University *Statute* Committee (*Commissione Statuto di Ateneo, l. 240/2010***), 2011**

Component of the University Evaluation Board 2004-2007

Associate Editor of the Journal of Multivariate Analysis, 2005-2019

Associate Editor of Statistics and Probability Letters, 2012-2019

Associate Editor of the Electronic Journal of Statistics (IMS), 2007-2015

Main Research Interests: Mathematical Statistics and Probability

Harmonic and geometric analysis for spherical random fields, spherical harmonics, higher order angular power spectra, spherical wavelets. Tensor-valued random fields, spin wavelets, spin needlets. Weak convergence and asymptotic theory. Characterization of isotropic random fields, connections with group representation theory. Applications to cosmological data. Statistical inference on stochastic processes: spectral analysis for stationary and nonstationary processes, long memory, cointegration and fractional cointegration.

Books

Random Fields on the Sphere: Representations, Limit Theorems and Cosmological Applications, with G.Peccati, Cambridge University Press 2011

Publications on Peer-Reviewed International Journals (updated June 2024)

1. *Spherical Poisson Waves* (with S.Bourguin, C.Durastanti, A.P.Todino), **Electronic Journal of Probability,** 29, 8, (2024)

2. *A quantitative functional central limit theorem for shallow neural networks* (with V.Cammarota, M.Salvi, S.Vigogna), **Modern Stochastics: Theory and Applications**, Vol. 11, No. 1, 85-108 (2024)

3. *Minkowski Functionals in SO(3) for the spin-2 CMB polarisation field* (with J.Carron, A.Carones, M.Migliaccio, N.Vittorio), **Journal of Cosmology and Astroparticle Physics,** no. 1, Paper No. 039, 26 pp., (2024)

4. *Flexible-bandwidth Needlets* (with C.Durastanti and A.P.Todino), **Bernoulli,** Vol. 30, n. 1, 22-45 (2024)

5. *Minkowski Functionals of CMB polarization intensity with Pynkowski: Theory and application to Planck and future data* (with A.Carones et al.), **Monthly Notices of the Royal Astronomical Society**, Volume 527, 1, 756-773, (2024)

6. *Geometric Methods for Spherical Data, with Applications to Cosmology* (with J. Carron Duque), **Annual Review of Statistics and its Applications,** in press (2024)

7. *Multiclustering needlet ILC for CMB B-mode component separation* (with A.Carones et al.), **Monthly Notices of the Royal Astronomical Society**, Vol. 525, 3117-3135 (2023)

8. *Some Recent Developments on the Geometry of Random Spherical Eigenfunctions,* **Proceedings of the 8th European Congress of Mathematics**, Invited Paper, 338-365, (2023)

9. *Lipschitz-Killing Curvatures for Arithmetic Random Waves,* (with V.Cammarota and M.Rossi), **Annali Scuola Normale Superiore**, Vol. 24, n. 2, 1095-1147, (2023)

10. *Analysis of Needlet Internal Linear Combination Performance on B Mode Data from Sub-Orbital Experiments* (with A.Carones, M.Migliaccio, N.Vittorio), **Astronomy & Astrophysics**, Volume 677, id.A147, 23 pp. (2023)

11. *Some Recent Developments on the Geometry of Random Spherical Eigenfunctions,* **Proceedings of the 8th European Congress of Mathematics**, Invited Paper, 338-365, (2023)

12. *On the Correlation of Critical Points and Angular Trispectrum for Random Spherical Harmonics* (with V.Cammarota), **Journal of Theoretical Probability,** Vol.35, n. 4, 2269-2303, (2022)

13. *Euclid Preparation: XV. Forecasting Cosmological Constraints for the Euclid and CMB Joint Analysis* (with the Euclid Collaboration), **Astronomy and Astrophysics,** 675, A91, (2022)

14. *A Novel Cosmic Filament Catalogue from SDSS Data,* (with J.Carron Duque, M.Migliaccio, N.Vittorio), **Astronomy and Astrophysics,** 659, A166, (2022)

15. *Non-Universal Fluctuations of the Empirical Measure for Isotropic Stationary Fields on S^2xR,* (with M.Rossi and A.Vidotto), **Annals of Applied Probability**, 31, 5, 2311-2349, (2021)

16. *Asymptotics for Spherical Functional Autoregressions,* (with A.Caponera), **Annals of Statistics,** 49, 1, 346-369, (2021)

17. *Nodal deficiency of random spherical harmonics in presence of boundary,* (with V.Cammarota and I.Wigman)**, Journal of Mathematical Physics,** 62, 2, n.022701, (2021)

18. *On the Correlation between Nodal and Nonzero Level Sets for Random Spherical Harmonics,* (with M.Rossi), **Annalés Henri Poincaré,** 22,1, 275-307, (2021)

19. *Needlet Thresholding Methods in Component Separation* (with F.Oppizzi, A.Renzi, M.Liguori, F.K.Hansen, C.Baccigalupi, D.Bertacca, D.Poletti), **Journal of Cosmology and Astroparticle Physics,** 3, 054, 29 pp. (2020)

20. *A Reduction Principle for the Critical Values of Random Spherical Harmonics* (with V.Cammarota), **Stochastic Processes and their Applications,** Vol. 130, 4, 2433-2470, (2020)

21. *The Asymptotic Equivalence of the Sample Trispectrum and the Nodal Length for Random Spherical Harmonics,* (with M.Rossi e I.Wigman), **Annalés Institute Henri Poincaré-Prob.Stat.,** Vol. 56, 1, 374-390, (2020)

22. *Planck-Scale Distribution of Nodal Length of Arithmetic Random Waves* (with J.Benatar and I.Wigman), **Journal d'Analyse Mathématique,** Volume 141, 2, pp. 707-749, (2020)

23. *Multiple Testing of Local Maxima for Detection of Peaks on the (Celestial) Sphere* (with D.Cheng, V. Cammarota, Y. Fantaye, A. Schwartzman), **Bernoulli,** Vol. 26, n. 1, pp.31-60, (2020)

24. *A Numerical Investigation on the High-Frequency Geometry of Spherical Random Eigenfunctions* (with Y. Fantaye, V.Cammarota, A.P.Todino), **High Frequency,** Wiley (2019)

25. *Point Source Detection and False Discovery Rate Control on CMB Maps* (with J.Carron-Duque, A.Buzzelli, Y.Fantaye, A. Schwartzman, N.Vittorio), **Astronomy and Computing,** 28, 100310 (2019)

26. *A Quantitative Central Limit Theorem for the Euler-Poincaré Characteristic of Random Spherical Harmonics* (with V. Cammarota), **Annals of Probability,** 46, 6, 3188-3288 (2018)

27. *Strong Local Nondeterminism and Exact Modulus of Continuity for Spherical Gaussian Fields* (with X. Lan and Y. Xiao), **Stochastic Processes and their Applications,** 128, 4, 1294-1315, (2018)

28. *Approximate Normality of High-Energy Hyperspherical Eigenfunctions* (with S.Campese and M.Rossi), **Journal of Mathematical Analysis and its Applications,** 461, 1, 500-522, (2018)

29. *Non-universality of Nodal Length Distribution for Arithmetic Random Waves* (with G.Peccati, M.Rossi, I.Wigman), **Geometric and Functional Analysis,** 26, 3, 926-960 (2016)

30. *Fluctuations of the Euler-Poincaré Characteristic for Random Spherical Harmonics* (with V.Cammarota, I.Wigman), **Proceedings of the American Mathematical Society,** 144,11, 4759-4775 (2016)

31. *On the Distribution of the Critical Values of the Random Spherical Harmonics* (with V.Cammarota, I.Wigman), **Journal of Geometric Analysis,** 4, 3252-3324, (2016)

32. *Needlet Estimation of Cross-Correlation between CMB Lensing Maps and LSS* (with F.Bianchini and Alessandro Renzi), **Journal of Cosmology and Astroparticle Physics**, Issue 11, article id. 050 (2016)

33. *Planck 2015 results. XVII. Constraints on Primordial non-Gaussianity* (Planck Collaboration), **Astronomy & Astrophysics**, Volume 594, id.A17, 66 pp. (2016)

34. *Planck 2015 Results. I. Overview of Products and Scientific Results* (Planck Collaboration), **Astronomy & Astrophysics,** Volume 594, id.A1, 38 pp. (2016)

35. *Planck 2015 results. XVI. Isotropy and Statistics of the CMB* (Planck Collaboration), **Astronomy & Astrophysics**, Volume 594, id.A16, 62 pp. (2016)

36. *High-Frequency Asymptotics for Lipschitz-Killing Curvatures of Excursion Sets on the Sphere* (with S.Vadlamani), **Annals of Applied Probability,** 26,1, 462-506 (2016)

37. *Gaussian Approximations of Nonlinear Statistics on the Sphere* (with. S.Bourguin, C.Durastanti, G.Peccati), **Journal of Mathematical Analysis and its Applications,** 436, 2, 1121-1148 (2016)

38. *Stein-Malliavin Approximations for Nonlinear Functionals of Random Eigenfunctions on ${mathbb{S}}^{d}$* (with M.Rossi), **Journal of Functional Analysis,** 268,8, 2379-2420 (2015)

39. *Cosmological Applications of the Gaussian Kinematic Formula* (with Y.Fantaye, F.K.Hansen, D.Maino), **Physical Review D,** Volume 91, 063501 (2015)

40. *A Note on Global Suprema of Band-Limited Spherical Random Functions* (with S.Vadlamani), **Statistics and Probability Letters,** 96, 141-148 (2015)

41. *The Stochastic Properties of ℓ^1-Regularized Spherical Gaussian Fields* (with V.Cammarota), **Applied and Computational Harmonic Analysis,** 38, 2, 262-283 (2015)

42. *On the Limiting Behaviour of Needlets Polyspectra* (with V.Cammarota), **Annalés Institute Henri Poincaré- Prob.Stat.,** 51,3, 1159-1189 (2015

43. *Simple Proposal for 3D Radial Needlets* (with C.Durastanti, Y. Fantaye, F.K.Hansen, I. Pesenson), **Physical Review D,** Volume 90, Issue 10, id.103532 (2014

44. *Planck 2013 results. I. Overview of products and scientific results* (Planck Collaboration), **Astronomy and Astrophysics,** Volume 571, idA1, 48 pp. (2014)

45. *Planck 2013 results. XV. CMB power spectra and likelihood* (Planck Collaboration), **Astronomy and Astrophysics,** Volume 571, idA15,. (2014)

46. *Planck 2013 results. XXIII. Isotropy and statistics of the CMB* (Planck Collaboration), **Astronomy and Astrophysics,** Volume 571, idA23. (2014)

47. *Planck 2013 results. XXIV. Constraints on primordial non-Gaussianity* (Planck Collaboration), **Astronomy and Astrophysics,** Volume 571, idA24, 58 pp. (2014)

48. *Sparse Inpainting and Isotropy,* (with S.Feeney, J.McEwen, H.Peiris, B.Wandelt, V.Cammarota), **Journal of Cosmology and Astroparticle Physics,** JCAP01(2014)050 (2014)

49. *Normal Approximations for Wavelet Coefficients on Spherical Poisson Fields,* (with C.Durastanti and G.Peccati), **Journal of Mathematical Analysis and its Applications,** 409,1, 212-227 (2014)

50. *On Nonlinear Functionals of Random Spherical Eigenfunctions* (with I. Wigman), **Communications in Mathematical Physics,** 327, n.3, 849-872 (2014)

51. *Gaussian Semiparametric Estimates on the Unit Sphere* (with C.Durastanti and X.Lan), **Bernoulli,** n.1, 28-77 (2014)

52. *Mean Square Continuity on Homogenous Spaces of Compact Groups,* (with G.Peccati), **Electronic Communications in Probability,** Vol. 18, n.37, 10 pp. (2013)

53. *Needlet-Whittle Estimates on the Unit Sphere,* (with C.Durastanti and X.Lan), **Electronic Journal of Statistics,** 7, 597-646, (2013)

54. *Cosmic-Ray Anisotropies observed by the ARGO-YBJ Experiment,* (with R. Iuppa et al.) **Nuclear Instruments and Methods in Physics Research A**, 160-164 (2012)

55. *On the Linear Term Correction for Needlets/Wavelets non-Gaussianity Estimators* (with S.Donzelli et al.), **Astrophysical Journal,** 755, 19 (2012)

56. *Detection of New Point Sources in WMAP 7 Year Data Using Internal Templates and Needlets* (with S.Scodeller and F.Hansen), **Astrophysical Journal,** 753, 27 (2012)

57. *Adaptive Nonparametric Regression on Spin Fiber Bundles* (with C.Durastanti and D.Geller), **Journal of Multivariate Analysis**, 104, pp. 16-38, (2012)

58. *Planck early results. III. First assessment of the Low Frequency Instrument in-flight performance* (with the Planck collaboration) **Astronomy and Astrophysics**, Volume 536, A3, (2011)

59. *Planck early results. V. The Low Frequency Instrument data processing,* (with the Planck collaboration) **Astronomy and Astrophysics**, Volume 536, A5, (2011)

60. *On the Area of the Excursion Sets of Spherical Gaussian Eigenfunctions* (with I.Wigman), **Journal of Mathematical Physics**, 52, n.9, 093301, (2011)

61. *The Defect Variance of Random Spherical Harmonics* (with I.Wigman), **Journal of Physics A: Mathematical and Theoretical,** 44, 355206 (2011)

62. *Mixed Needlets* (with D.Geller), **Journal of Mathematical Analysis and its Applications,** Vol. 375, pp. 610-630 (2011)

63. *Introducing Mexican Needlets for CMB Analysis: Issues for Practical Applications and Comparison with Standard Needlets* (with S.Scodeller, O. Rujord, D.Geller, F.Hansen, A.Mayeli), **Astrophysical Journal**, (2011)

64. *Ergodicity and Gaussianity for Spherical Random Fields* (with G.Peccati), **Journal of Mathematical Physics,** n.4, 043301, (2010)

65. *Spin Wavelets on the Sphere* (with D. Geller), **Journal of Fourier Analysis and its Applications,** Vol. 6, pp.840/884, arxiv: 0811.2935 (2010)

66. *A statistical procedure for the identification of positrons in the PAMELA experiment* (with the PAMELA collaboration), **Astroparticle Physics,** 34, 1-11, arXiv 1001.3522 (2010)

67. *Directional Variations of the Non-Gaussianity Parameter f_NL*, (with O. Rudjord, F.K.Hansen, X.Lan, M. Liguori, S.Matarrese), **Astrophysical Journal**, 708:1321-1325, arXiv: 0906.3232 (2010)

68. *Representations of SO(3) and Angular Polyspectra* (with G.Peccati), **Journal of Multivariate Analysis**, Vol. 101, pp.77-100, arxiv: 0807.0687 (2010)

69. *Group Representations and High-Resolution Asymptotics for Subordinated Isotropic Fields on the Sphere* (with G.Peccati), **Bernoulli**, 16, n.3, 798-824, arxiv: 0706.2851 (2010)

70. *Spin Needlets Spectral Estimation* (with D. Geller and X. Lan), **Electronic Journal of Statistics,** Vol. 3, 1497-1530, arXiv 0907.3369 (2009)

71. *An Estimate of the Primordial Non-Gaussianity Parameter f_NL Using the Needlet Bispectrum from WMAP* (with O. Rudjord, F.K.Hansen, X.Lan, M. Liguori, S.Matarrese), **Astrophysical Journal**, 701:369-376, arxiv: 0901.3154 (2009)

72. *On the Dependence Structure of Wavelet Coefficients for Spherical Random Fields* (with X.Lan), **Stochastic Processes and their Applications**, Vol. 119, pp. 3749-3766, arxiv: 0805.4154, (2009)

73. *Adaptive Density Estimation for Directional Data Using Needlets* (with P.Baldi, G.Kerkyacharian, D. Picard), **Annals of Statistics**, Vol.37, pp.3362-3395, arxiv: 0807.5059 (2009)

74. *Subsampling Needlet Coefficients on the Sphere* (with P.Baldi, G.Kerkyacharian, D.Picard), **Bernoulli**, Vol. 15, 438-463, arxiv: 0706.4169, (2009)

75. *Statistical Challenges in the Analysis of Cosmic Microwave Background Radiation* (with P. Cabella), **Annals of Applied Statistics**, Vol.3, N.1, pp. 61-95, arxiv:0807.1816, (2009)

76. *Asymptotics for Spherical Needlets* (with P.Baldi, G.Kerkyacharian, D.Picard), **Annals of Statistics**, Vol. 37, No. 3, 1150-1171, math.st/0606599, (2009)

77. *Spin Wavelets for Polarization Data Analysis*, (with D. Geller, F.Hansen, G.Kerkyacharian, D. Picard), **Physical Review D**, D78:123533, arxiv: 0811.2881, (2008)

78. *Needlet Detection of Features in CMB Sky and the Impact on Anisotropies and Hemispherical Asymmetries*, (with D.Pietrobon et al.), **Physical Review D**, D78:103504,2008, arxiv: 0809.0010, (2008)

79. *The Needlet Bispectrum* (with X. Lan), **Electronic Journal of Statistics,** Vol. 2, pp.332-367, (2008)

80. *A Central Limit Theorem and Higher Order Results for the Angular Bispectrum*, **Probability Theory and Related Fields**, Vol. 141, N.3-4, pp. 389-409, math.pr/0509430, (2008)

81. *High-Frequency Asymptotics for Subordinated Isotropic Fields on an Abelian Compact Group* (with G.Peccati), **Stochastic Processes and their Applications,** Vol. 118, pp. 585-613, math.pr/0607044, (2008)

82. *Spherical Needlets for CMB Data Analysis* (with D.Pietrobon et al.), **Monthly Notices of the Royal Astronomical Society**, Vol. 383, pp.539-545, (2008)

83. *High-Frequency Asymptotics for Wavelet-Based Tests for Gaussianity and Isotropy on the Torus* (with P.Baldi, G.Kerkyacharian, D.Picard), **Journal of Multivariate Analysis,** Vol. 99, pp. 606-636, math.st/0606154, (2008)

84. *Polynomial Cointegration among Stationary Processes with Long Memory* (with M.Avarucci), **Journal of Time Series Analysis,** Vol.28, pp.923-942, math.st/0607150, (2007)

85. *On the Characterization of Isotropic Gaussian Fields on Homogeneous Spaces of Compact Groups,* (with P.Baldi e V.S.Varadarajan), **Electronic Communications in Probability,** 12, pp.291-302, (2007)

86. *Some Characterization of the Spherical Harmonics Coefficients for Isotropic Random Fields,* (with P.Baldi), **Statistics and Probability Letters,** Vol. 77, pp. 490-496, (2007)

87. *High Resolution Asymptotics for the Angular Bispectrum of Spherical Random Fields,* **Annals of Statistics**, Vol.34, N.1, pp. 1-41 (2006)

88. *Integrated Sachs-Wolfe effect from the cross correlation of WMAP3 year and the NRAO VLA sky survey data: New results and constraints on dark energy,* (with A.Balbi e D.Pietrobon), **Physical Review D,** 74, 043524, (2006)

89. *The integrated bispectrum as a test of cosmic microwave background non-Gaussianity: detection power and limits on f_{NL} with WMAP data,* (with P. Cabella et al.), **Monthly Notices of the Royal Astronomical Society**, Volume 369, n.1, pp. 819-824 (2006)

90. *Regression Methods for Testing Non-Gaussianity on a Sphere,* **Random Operator and Stochastic Equations,** Vol.13, N.4, 313-324 (2005)

91. *Unbiased estimation of Angular Power Spectra* (with G.Polenta et al.), **Journal of Cosmology and Astroparticle Physics,** Issue 11, n.1, (2005)

92. *Primordial non-Gaussianity: local curvature method and statistical significance of constraints on f_{NL} from WMAP data,* (with P. Cabella et al.), **Monthly Notices of the Royal Astronomical Society**, Volume 358, Issue 2, pp. 684-692 (2005)

93. *The Empirical process for Bivariate Sequences with Long Memory,* **Statistical Inference on Stochastic Processes,** Volume 8, Issue 2, pp.205-223 (2005)

94. *Asymmetries in the Local Curvature of the WMAP Data* (with F.K.Hansen et al.), **Astrophysical Journal Letters,** p.L67-L70, (2004)

95. *The Empirical Process on Gaussian Spherical Harmonics* (with M.Piccioni), **Annals of Statistics**, vol. 32, pp.1261-1288 (2004)

96. *Search for non-Gaussianity in Pixel, Harmonic and Wavelet Space: Compared and Combined* (with P. Cabella et al.), **Physical Review D**, vol.69, 063007, (2004)

97. *Testing for non-Gaussianity on Cosmic Microwave Background Radiation: a Review,* **Statistical Science**, Vol. 19, Issue 2, pp. 294-307 (2004)

98. *The Extended Empirical Process Test for Non-Gaussianity, with an Application to Nonstandard Inflationary Models* (with F.K. Hansen and N.Vittorio), **Physical Review D**, vol. 67, 123004, (2003)

99. *Gaussian Semiparametric Estimation for Random Fields with Singular Spectrum*, **Probability and Mathematical Statistics**, vol. 23, 1, pp.105-138 (2003)

100. *The empirical process approach for detection of non-Gaussianity in the CMB* (with F.Hansen et al.), **New Astronomy Reviews**, Volume 47, Issue 8-10, p. 811-814 (2003)

101. *Testing for Non-Gaussianity in Harmonic Space: an Empirical Process Approach* (with F.Hansen et al.), **Physical Review D**, vol. 66, id. 3006, (2002)

102. *Non-Iterative Methods to Estimate the In-Flight Noise Properties of CMB Detectors*, (with P.Natoli et al.), **Astronomy and Astrophysics,** 383, 1100-1112, (2002)

103. *Cyclical Behaviour of Bone Remodelling and Bone Loss in Healthy Women after Menopause: Results of a Prospective Study*, (with G.Mazzuoli et al.), **Bone,** vol.31, 6, pp.718-724 (2002)

104. *Narrow Band Analysis of Nonstationary Processes*, (with P.M.Robinson), **Annals of Statistics**, Vol. 29, no 4, 947-86, (2001)

105. *Bayesian Semiparametric Analysis of Long Range Dependence*, (with B.Liseo and L.Petrella), **Biometrika,** Vol. 88, pp. 1089-1104, (2001)

106. *Asymptotics for Linear Random Fields*, (with S.Poghosyan), **Statistics and Probability Letters,** , Vol.51, n.2, pp.131-141 (2001)

107. *Semiparametric Analysis of Fractional Cointegration*, (with P.M.Robinson), **Journal of Econometrics,** Vol. 105, pp. 225-247, (2001)

108. *Finite Sample Improvements in Statistical Inference with I(1) Processes*, (with P.M.Robinson), **Journal of Applied Econometrics,** Vol.16, pp. 431-444 (2001)

109. *Weak Convergence of Multivariate Fractional Processes*, (with P.M.Robinson), **Stochastic Processes and their Applications,** (2000), vol.86, pp.103-120

110. *Spectral Regression for Cointegrated Time Series with Long Memory Innovations*, **Journal of Time Series Analysis,** Vol. 21, n.6, pp**.** 685-705 (2000)

111. *The Averaged Periodogram for Nonstationary Vector Stochastic Processes*, (with P.M.Robinson) **Statistical Inference on Stochastic Processes,** Vol.3, n.1/2, pp.149-160 (2000)

112. *Alternative Forms of Fractional Brownian Motion*, (with P.M.Robinson), **Journal of Statistical Inference and Planning,** Vol.80, 111-122, (1999)

Quotations:

See

http://scholar.google.com/

http://adswww.harvard.edu/

http://klymene.mpim-bonn.mpg.de/mathscinet

Invited Seminars and Lectures

1) Seminars on Probabilità and Mathematical Statistics, Università Roma 1, 9/2/1998

2) Meeting CIDE on Time Series, Bologna, 27/2/1998

3) LSE Workshop in Econometrics and Statistics, Londra, 25/2/1998

4) XXXIX SIS Meeting, Sorrento, 16/4/1998

5) PhD Seminars on Theoretical Statistics, Università Roma 1, 14/7/1998

6) National Meeting: Stochastic Processes and their Applications, Padova, 16/9/1998

7) French-Belgian Meeting of Statisticians, Luminy, Marsiglia, 26/11/1998

8) Probability and Statistics Seminars, Università "Gabriele d'Annunzio", Pescara, 10/12/1998

9) Workshop on MCMC methods and applications, Università Roma 3, 15/12/1998

10) III Ukrainian-Skandinavian Conference on Mathematical Statistics and Probability, Kiev, 10/6/1999

11) Summer School on Empirical Processes, University of Aarhus (DK), 11/8/1999

12) National Meeting on Computational Statistics and Applications, Venezia, 27/9/1999

13) Workshop "Empirical Processes", Università "La Sapienza", 26/11/1999

14) National Meeting MURST on Time Series Analysis, Portici (Napoli) 24/1/2000

15) XXXX SIS Meeting, Firenze, 27/4/2000

16) III International Conference on Mathematical Problems of Statistical Physics, Nor Amberd, Armenia, 31/4/ 2000

17) Conference on Nonparametric, Semiparametric and Resampling Methods, Universitad Carlos III, Madrid, 4/10/2000

18) LSE Workshop in Econometrics and Statistics, Londra, 11/1/2001

19) National Meeting MURST on Time Series Analysis, L'Aquila, 5/4/2001

20) Seminari Probabilità e Statistica Matematica, Università di Pavia, 24/5/2001

21) European Meeting of Statisticians, Funchal (Portogallo), 16/8/ 2001

22) Seminars on Probabilità and Mathematical Statistics, Politecnico di Milano, 15/11/2001

23) Meeting National Institute for Nuclear Physics PD51, "Inflation, dark matter and large scale structure of the Universe", Ferrara, 9/5/2002

24) Invited Speaker, XXXXI SIS meeting, Milano, giugno 2002

25) Invited Speaker, Scientific Meeting of the Italian Sociaty for Operational Research, L'Aquila, 13/9/2002

26) National Meeting MURST on Probabilità and its applications to Filtering, Finance, Statistics and Simulations, Università di Roma La Sapienza, 19/9/2002

27) Seminars on Mathematical Physics, Università di Roma Tor Vergata, 11/11/2002

28) European Meeting CMBNET, Oxford, 20/2/2003

29) Statistics Seminars, Università di Venezia, 20/6/2003

30) Invited Speaker, Joint Meeting University of New York / University of Florence "Stochastic Models in the Continuum", Florence, 15/6/2004

31) Workshop on Precision Cosmology, Department of Physics, University of Rome "La Sapienza", 2/7/2004

32) 6th World Congress of the Bernoulli Society for Mathematical Statistics and Probability, Barcellona (ES), 26/7/2004

33) Adamis Cosmology Group - University Paris VI, 6/7/2005

34) European Meeting of Statisticians, Oslo (NK), 28/7/2005

35) Workshop “Stochastic Methods in Mathematical Finance”, Department of Mathematics, University of Rome “La Sapienza”, 16/9/2005

36) Planck-ESA WG Meeting, Institute of Physics of Cantabria, Santander (ES), 26/9/2005

37) Department of Mathematics, University of Rome “La Sapienza”, 14/11/2005

38) Invited Speaker, IMS World Meeting, Rio de Janeiro, 2/8/2006

39) Plenary Speaker, CLAPEM Bernoulli Meeting, Lima, 2/3/2007

40) Department of Statistics and Probability, University of Rome “La Sapienza”, 3/5/2007

41) Meeting on Random Fields and Interacting Particle Systems, Department of Mathematics, Bologna, 26/6/2007

42) DAC2007 – Data Analysis in Cosmology, Santander (ES), 10/07/2007

43) Invited Speaker and Session Organizer, Bernoulli-ISI meeting on Probability and Statistics in Science and Technology, Porto (PT), 2/9/2007

44) Department of Mathematics, University of Rome III, 6/11/2007

45) Invited Speaker, Conference on Limit Theorems and their Applications, Paris-Sorbonne, 14/1/2008

45) Invited Speaker, Joint Bernoulli Society – IMS World meeting, Singapore, 18/7/2008

46) Invited Speaker, Workshop on Stochastic Geometry, Banff, Canada, 24/2/2009

47) Cosmostat Meeting, Ascona (Switzerland), 28/7/2009

48) Invited Speaker, SFOA Meeting, Institute for the Mathematics and Physics of the Universe, Tokyo, 30/9/2009

49) IMS Conference, Gothenburg, 9/8/2010

50) Rome International Conference on Cosmic Rays Astrophysics, Rome, 25/5/2011

51) Invited Speaker, Workshop Cosmology and Sparsity, Nice, 1/6/2011

52) Plenary Speaker, Applied Stochastic Models and Data Analysis, Rome, 8/6/2011

53) Plenary Speaker, Statistical Challenges in Modern Astrophysics, Penn State, 13/6/2011

54) Invited Speaker, Joint IMS/China Conference, Xian, 8/7/2011

55) Invited Speaker, International Society for Nonparametric Statistics, Chalkidiki (GR), 15/6/2012

56) Invited Speaker, Modern Theory Stochastic Processes Conference, Kiev, 12/9/2012

57) Invited Speaker, Big^3 Conference, Paris, 19/9/2012

58) Invited Speaker, Workshop Stochastic Analysis for Poisson Point Processes, Oberwolfach (DE), 12/2/2013

59) Invited Speaker, Workshop in Statistics and Econometrics, St.Andrews (Scotland), 3/4/2013

60) Probability Seminar, Technion, Haifa, 7/5/2013

61) Organizer and Speaker, Workshop Pascal, Indam, Rome, 3-5/6/2013

62) Invited Speaker (Contributed Session), IMS Budapest, 20/7/2013

63) Department Colloquium, Michigan State University, 24/9/2013

63) Department of Pure Mathematics and Statistics, Cambridge University, 11/10/2013

64) Department of Statistics, Opening Ceremony of the PhD Programme, Padova, 17/1/2014

65) Department of Quantitative Methods, Bocconi University, 27/2/2014

65) Department Colloquium, University of California at Davis, 6/3/2014

66) Department of Statistics, Sapienza University of Rome, 4/4/2014

67) Invited Speaker, Advances in Directional Statistics (Adista14), Bruxelles, 20/5/2014

68) Invited Speaker, Science on the Sphere, Royal Society Workshop, Chicheley Hall, UK; 4/7/2014

69) Invited Speaker, Sparsity and Cosmology Workshop, Nice, 8-11/9/2014

70) Invited Speaker, ICIP Paris, 30/10/2014

71) Colloquium Astrophysics, SISSA Trieste, 12/5/2015

72) Invited Lecturer, Finnish Summer School in Probability and Statistics, 1-5/6/2015

73) Invited Speaker, IMS-China Conference, Kunming, 1-4/7/2015

74) Invited Speaker, European Meeting of Statisticians, Amsterdam, 6-10/7/2015

75) Session Organizer, 14 Marcel Grossmann meeting on General Relativity, Rome, 13-17/7/2015

76) Keynote Speaker, Geometry and Physics of Spatial Random Systems, Bad Herrenalb (DE), 7-11/9/2015

77) Linnik Centennial Conference, St.Petersburg, 14-18/9/2015

78) Invited Speaker and Session Organizer, CFE-ERCIM London, 12/12/2015

79) Invited Speaker, Meeting in Mathematical Statistics, Frejus (FR), 14-18/12/2015

80) Department Colloquium, University of Luxembourg, 23/2/2016

81) Invited Speaker, Random Waves in London, King's College, 3-5/5/2016

82) Invited Speaker, TIES 2016, Edimburgh, 21/7/2016

83) Probability Seminar, Luiss Guido Carli, Roma, 20/10/2016

84) Mathematics Seminar, Gran Sasso Science Institute, L'Aquila, 1/12/2016

85) Invited Speaker, 10th ICSA Conference, Shangai, 20/12/2016

86) Probability Seminar, Department of Mathematics, Sapienza University of Rome, 23/1/2017

87) Plenary Speaker, Workshop on Random Polynomials, Montevideo, 24/2/2017

88) Plenary Speaker, Large Random Graphs: Geometry and Applications, Hausdorff Centre, Bonn, 6/4/2017

89) Invited Speaker, ADISTA Conference, Roma, 8/6/2017

90) Session Organizer and Invited Speaker, Astrostatistics Session SIS, Florence, 30/06/2017

91) Invited Speaker, Dictionary Learning on Manifolds, Nice, 5/9/2017

92) Spring Day in Probability, King's College London, 5/3/2018

93) Invited Speaker, High-Dimensional Data Analysis, Marrakech, 10/4/2018

94) Invited Speaker, Uncertainty Quantification in Complex Systems, Lorentz Centre, Leiden 16/4/2018

95) Invited Speaker, Stochastic Geometry Days, Université Paris Descartes, 17/5/2018

96) Invited Speaker, Random Waves in Oxford 19/6/2018

97) Invited Speaker, IMS-APRM, Singapore 29/6/2018

98) Invited Speaker, Recent Advances in Random Processes, Roma 10/9/2019

99) Invited Speaker, Joint UMI-Polish Mathematical Society meeting, Wroclaw, 17/9/2018

100) Invited Speaker, Advanced Statistics for Physics Discovery, Padova, 24/9/2018

101) Invited Speaker, Institut Henri Poincaré Trimester on Analytics, Inference and Computation in Cosmology, Paris, 26/10/2018

102) MoMa Seminar, Department of Mathematics, Sapienza University of Rome, 30/11/2018

103) Invited Speaker, Congresso UMI Pavia, 3/9/2019

104) Invited Speaker, Workshop Unirandom, Rennes, 10/9/2019

105) Joint Seminar, EPFL, Lausanne, 4/12/2019

106) Van Dantzig National Seminar, Delft, 14/2/2020

107) Bremen Department Colloquium (online) 16/6/2020

108) University of Trento (online), 25/6/2020

109) Machine Learning Genoa Center, University of Genoa (online), 11/5/2021

110) Modern Stochastics Theory and Applications Conference, Kyiv (online), 3/6/2021

111) 8th European Congress of Mathematics, Invited Speaker, Portoroz (online), 25/6/2021

112) Bangalore Probability Seminar, (online) 24/1/2022

113) Invited Speaker, Random Fields and their Applications, Kyiv (online), 14/4/2022

114) Invited Speaker, Multivariate Analysis of Complex Data, Bruxelles, 23/5/2022

115) Invited Speaker, Nonlinear PDE and their Applications, in honor of M.Bertsch, Rome, 13/6/2022

116) Invited Speaker, International Society for Nonparametric Statistics world meeting, Paphos (Cyprus), 20/6/2022

117) Università di Napoli "Federico II", 13/9/2022

118) New York University Abu Dhabi, 28/9/2022

119) Khalifa University Abu Dhabi, 29/9/2022

120) Department Colloquium, Bocconi University, 21/10/2022

121) Invited Speaker, 1st International Conference Statistics and Data Science, Florence, 15/12/2022

122) Invited Speaker, 24th Conference Romanian Society Probability and Statistics, Bucharest, 22/4/2023

123) Invited Speaker, Convegno Prin SMOCS, Lecce, 19/5/2023

124) Invited Speaker, Random Nodal Domains Conference, Rennes, 5/6/2023

125) Invited Speaker, One Day Between Probability and Statistics - Conference in honour of Mauro Piccioni, Sapienza, 30/11/2023

126) Invited Speaker, CMStatistics, Berlin, 16/12/2023

127) Prisma online Colloquium, 06/05/2024

128) Padova Probability Seminar, 17/05/2024
129) Probability Victoria online seminar, 23/05/2024
130) Genova MalGA seminar, 27/07/2024

My Math Genealogy can be found here