Paolo Gibilisco

Curriculum Vitae

June 5, 2019

Paolo Gibilisco was born in Rome on February 13, 1961.

He is Associate Professor of Mathematical Analysis and Probability.

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Contents

1	Education	2
2	Enrollment history	2
3	Books	2
4	Publications	2
5	Talks and invitations	5
6	Teaching	8
7	Conference organizations	10
8	Phd students	10
9	Coordination Activities	11
10	Research Grants	11
11	Fellowships	12
12	Editorial and Referee activities	12

1 Education

- 1992 Ph. d. in Mathematics at the University of Rome "Tor Vergata".
- 1986 Master in Mathematics at the University of Rome "La Sapienza".

2 Enrollment history

- 2013 Italian Scientific National Qualification for the position of Associate Professor Section 01/A3, Mathematical Analysis, Probability and Statistics.
- 2003–2015 Assistant Professor at the Department SEFEMEQ, School of Economics, University of Rome "Tor Vergata".
- 2001-2003 Assistant Professor at the Department of Science, University of Chieti-Pescara "G. d'Annunzio".
- 1994-2001 Assistant Professor at the Department of Mathematics, Politecnico di Torino.
- 1992-1994 Teacher of Mathematics in the Italian high school.

3 Books

- [42] N. AY, P. GIBILISCO, F. MATUS. (eds.) Information Geometry and its Applications, Springer Proceedings in Mathematics & Statistics 252, 2018, 456 pp.
- [41] P. Gibilisco, E. Riccomagno, M.-P. Rogantin, H. Wynn (eds.) Algebraic and Geometric Methods in Statistics, Cambridge University Press, 2010, 382 pp.

4 Publications

- [40] P. Gibilisco, F. Hansen An inequality for expectation of means of positive random variable. *Annals of Functional Analysis*, 8(1), pp.142 151, pp., 2017.
- [39] P. Gibilisco. Fisher information and means: some questions in the classical and quantum settings. *International Journal of Software and Informatics*, 8(3-4) pp. 265–276, 2014.
- [38] P. Gibilisco, T. Isola. How to distinguish quantum covariances using uncertainty relations. *Journal of Mathematical Analysis and Applications*, 384: p. 670-676, 2011, Elsevier, San Diego, USA.
- [37] P. Gibilisco, T. Isola. On a refinement of Heisenberg uncertainty relation by means of quantum Fisher information, *Journal of Mathematical Analysis and Applications*, 375: p. 270-275, 2011, Elsevier, San Diego, USA.
- [36] P. Gibilisco, E. Riccomagno, M.-P. Rogantin, H. Wynn. Algebraic and Geometric Methods in Statistics, p. 1-24 in [41].

- [35] P. Gibilisco, D. Imparato, T. Isola. A characterization of the uniform distribution on the circle by Stam inequality. *Journal of Inequalities in Pure and Applied Mathematics*, 10(2), Article 34, 7 pp., 2009, Victoria University, Melbourne, Australia.
- [34] P. Gibilisco, F. Hansen, T. Isola. On a correspondence between regular and non-regular operator monotone functions. *Linear Algebra and its Applications*, 430: 2225–2232, 2009, Elsevier, Amsterdam.
- [33] P. Gibilisco, F. Hiai, D. Petz. Quantum covariance, quantum Fisher information and the uncertainty relations. *IEEE Transactions in Information Theory*, 55(1): 439–443, 2009, Piscataway (NJ).
- [32] P. GIBILISCO, D. IMPARATO, T. ISOLA. Inequalities for quantum Fisher information. *Proceedings of the American Mathematical Society*, 137(1): 317–327, 2009, Providence (RI), USA.
- [31] P. Gibilisco, D. Imparato, T. Isola. Schrödinger equation, L^p -duality and the geometry of Wigner-Yanase-Dyson information, p.157–164 in J. C. García, R. Quezada, S. B. Sontz (eds.), Quantum Probability and Related Topics, Proceedings of the 28th Conference, CIMAT-Guanajuato, Mexico 2 8 September 2007, World Scientific, Singapore, 2008.
- [30] P. Gibilisco, T. Isola. A dynamical uncertainty principle in von Neumann algebras by operator monotone functions. *Journal of Statistical Physics*, 132: 937–944, 2008, Springer, New York.
- [29] P. Gibilisco, T. Isola. Fisher information and Stam inequality on a finite group. Bullettin of the London Mathematical Society, 40(5): 855-862, 2008, OUP, Oxford (GB). See also the Erratum, Bull. Lond. Math. Soc. 42 (2010), no. 6, 973.
- [28] P. GIBILISCO, D. IMPARATO, T. ISOLA. Stam inequality on Z_n . Statistics and Probability Letters, 78(13): 1851-1856, 2008, Elsevier, Amsterdam.
- [27] P. Gibilisco, T. Isola. An inequality related to uncertainty principle in von Neumann algebras. *International Journal of Mathematics*, 19(10): 1215–1222, 2008, World Scientific, Singapore.
- [26] P. Gibilisco, T. Isola. Uncertainty principle for Wigner-Yanase-Dyson information in semifinite von Neumann algebras. *Infinite Dimensional Analysis, Quantum Probability & Related Topics*, 11(1): 127-133, 2008, World Scientific, Singapore.
- [25] P. Gibilisco, D. Imparato, T. Isola. A Robertson-type uncertainty principle and quantum Fisher information. *Linear Algebra and its Applications*, 428(7), 1706–1724, 2008, Elsevier, Amsterdam.
- [24] P. Gibilisco, D. Imparato, T. Isola. A volume inequality for quantum Fisher information and the uncertainty principle. *Journal of Statistical Physics*, 130(3): 545–559, 2008, Springer, New York.
- [23] P. GIBILISCO, D. IMPARATO, T. ISOLA. Uncertainty principle and quantum Fisher information II. *Journal of Mathematical Physics*, 48, p. 072109, 2007, American Institute of Physics, Melville, (NY).

- [22] P. Gibilisco, T. Isola. Uncertainty principle and quantum Fisher information. *Annals of the Institute of Statistical Mathematics*, 59: p. 147-159, 2007, Springer, Tokio.
- [21] P. Gibilisco, T. Isola. Some open problems in Information Geometry. p. 205–211 in Quantum Probability and Infinite Dimensional Analysis, Proceedings of the 26th Conference, Levico, Italy 20–26 February, 2005, L. Accardi, W. Freudenberg & M. Schürmann (eds.), World Scientific, Singapore, 2007.
- [20] P. Gibilisco, T. Isola. Uncertainty principle and quantum Fisher information, pag. 154-161 in *Proceedings of the Second International Symposium on Information Geometry and its Applications*, University of Tokio, (2006).
- [19] P. Gibilisco, T. Isola. On the monotonicity of scalar curvature in classical and quantum information geometry. *Journal of Mathematical Physics*, 46(2): 023501-14, 2005, AIP, Melville (NY).
- [18] P. Gibilisco, T. Isola. On the characterisation of paired monotone metrics. *Annals of the Institute of Statistical Mathematics*, 56(2), p. 369-381, 2004, Springer, Tokio.
- [17] P. Gibilisco, D. T. Isola. Wigner-Yanase information on quantum state space: the geometric approach. *Journal of Mathematical Physics*, 44(9), p.3752-3762, (2003), American Institute of Physics, Melville, (NY).
- [16] P. Gibilisco, D. T. Isola. A characterisation of Wigner-Yanase skew information among statistically monotone metrics. *Infinite Dimensional Analysis, Quantum Probability & Related Topics*, 4(4), p. 553-557, (2001) World Scientific, Singapore.
- [15] P. Gibilisco, D. T. Isola. Monotone metrics on statistical manifolds of density matrices by geometry of non-commutative L^2 -spaces. in *Disordered and Complex Systems*, A.C.C.Coolen, L.Hughston, P.Sollich, R.F.Streater (eds.), p. 129-140, American Institute of Physics (2001), Melville (NY).
- [14] L. ACCARDI, P. GIBILISCO. Non-commutative mathematics. Item of *Enciclopedia Italiana*, Appendice 2000, vol. II, p.132-139, (2000), in Italian, Rome.
- [13] P. Gibilisco, G. Pistone. Analytical and geometrical properties of statistical connections in Information Geometry. In *Mathematical Theory of Networks and Systems*, A. Beghi, L. Finesso, G. Picci (eds.), pp.811-814, Il Poligrafo, (1999), Padova.
- [12] P. GIBILISCO, T. ISOLA. Connections on statistical manifolds of density operators by geometry of non-commutative L^p -spaces. Infinite Dimensional Analysis, Quantum Probability & Related Topics 2(1), p. 169-178, (1999) World Scientific, Singapore.
- [11] P. GIBILISCO, G. PISTONE. Connections on non-parametric statistical manifolds by Orlicz space geometry. *Infinite Dimensional Analysis, Quantum Probability & Related Topics*, 1(2), p. 325-347, (1998), World Scientific, Singapore.
- [10] P. Gibilisco, F. Nava. The decrease of mathematics students at the university: an interpretatation of statistical data. *Lettera Matematica Pristem*, n.26, p.16-21, (1997), in Italian, Springer Italia, Milano.
- [9] P. Gibilisco. Bundle-connection pairs and loop group representations. *Mathematical Notes*, 61, n.4, p.417-429, (1997), Plenum Publishing Corporation, New York.

- [8] P. Gibilisco. Induced representations of non-locally compact groups. *Mathematical Notes*, 57, n.3, p.248-253, (1995), Plenum Publishing Corporation, New York.
- [7] P. Gibilisco. The imprimitivity theorem for a class of non-locally compact groups. In General Relativity and Gravitational Physics, M. Cerdonio, R. D'Auria, M. Francaviglia, G. Magnano (eds.), p.491-496, World Scientific, (1994), Singapore.
- [6] P. Gibilisco. The axiomatization of probability. *Rivista di Matematica Pura e Applicata*, 14, p.43-55, (1994), Udine.
- [5] L. ACCARDI, P. GIBILISCO, I. VOLOVICH,. Yang-Mills gauge fields as harmonic functions for the Lévy laplacian. *Russian Journal of Mathematical Physics*, 2, p.235-250, (1994), Wiley & Sons, New York.
- [4] L. ACCARDI, P. GIBILISCO, I. VOLOVICH,. The Lévy laplacian and the Yang-Mills equations. Atti della Accademia Nazionale dei Lincei Rendiconti Lincei Scienze Fisiche e Naturali serie IX, volume IV, fascicolo 3, p.201-206 (1993), Roma.
- [3] L. ACCARDI, P. GIBILISCO. The Schrödinger representation on Hilbert bundles. In *Probabilistic Methods in Mathematical Physic*, F. Guerra, M.I. Loffredo, C. Marchioro (eds.), p.1-15, World Scientific (1992), Singapore.
- [2] P. Gibilisco. *Induced representations for path groups and parallel transports*. Ph. d. Thesis (in Italian), University of Rome "Tor Vergata" (1992).
- [1] P. Gibilisco. Boolean algebras, measures and probabilities. Master Thesis (in Italian), University of Rome "La Sapienza" (1986).

5 Talks and invitations

- 2017 Indian Statistical Institute, "Quantum Probability: Past, Present, Future. A conference on the occasion of 70^{th} birthday of Professor Luigi Accardi." Title of the talk: "Integrability of the generalized Proudman-Johnson equation, α -connections and the geodesics of the L^p spheres."
- 2017 Politecnico di Torino, "First Italian Meeting on Probability and Mathematical Statistics".
 Title of the talk: 'Operators means in quantum probability: the decomposition formula for the quantum Fisher-Rao metrics and the generalized Rao inequality for mean expectation".
- 2017 "Current Problems in Theoretical Physics", XXIII Edition, Vietri sul Mare. Title of the talk: "An Invitation to Quantum Information Geometry".
- 2017 Department of Physics, University of Oxford, UK. Title of the talk: "Operator means, quantum Fisher information, covariance(s) and the uncertainty principle: a panorama".
- 2016 Università di Chieti-Pescara, Italy. Title of the talks "1. Uncertainty Relations by Operator Means and Quantum Fisher Information. 2. The Next Stam Inequalities."
- 2014 Department of Mathematics, University of Notre Dame, Indiana, USA.
- 2014 Liceo Scientifico Archimede, Roma. Minicourse: "A friendly introduction to Probability".

- 2012 Erwin Schrödinger International Institute for Mathematical Physics, Vienna. Programme on "Modern Methods of Time-Frequency Analysis II". Title of the talk: "Means, covariance, Fisher information: the quantum theory and the uncertainty relations".
- 2012 Max Planck Institute for Mathematics in the Sciences, Leipzig.
- 2012 Nara Women's University, Nara, Japan. International Workshop on "Anomalous Statistics, Generalized Entropies, and Information Geometry". Title of the talk: "Stam inequality: past present and future".
- 2011 Chinese Academy of Sciences, Beijing. Title of the talk: "An invitation to Fisher information: Stam inequality and the Uncertainty Principle".
- 2011 Collegio Carlo Alberto, Moncalieri, Turin, Italy.
- 2010 University of Leipzig. "Third Conference on Information Geometry and its Applications". Title of the talk: "The $f \tilde{f}$ correspondence and its application to quantum information".
- 2010 Max Planck Institute for Mathematics in the Sciences, Leipzig. "Minischool on Quantum Information Theory and Quantum Computing". Title of the talk: "The $f \tilde{f}$ correspondence and its application to quantum information".
- 2010 Budapest University of Technology and Economics, Department for Mathematical Analysis. "von Neumann workshop". Title of the talk: "Stam inequality on the circle and on the cyclic group".
- 2010 Liceo Scientifico Archimede, Rome. Invited speaker for the Congress: "Scientific paths, a celebration of the 40th year of the school". Title of the talk: "The mathematical experience: an interior journey leading to reality".
- 2009 Institut Henri Poincaré, Paris. Invited speaker at the "3rd EPFL-UMLV Workshop on Random Matrices, Information Theory and Applications". Title of the talk: "Covariance, means and Fisher information: a quantum journey at the light of uncertainty relations"
- 2008 University of Arizona, College of Optics. Invited speaker at the "3rd International Workshop on Fisher Information". Title of the talk: "An invitation to geometry of classical and quantum Fisher information".
- 2008 Huazhong University of Science and Technology, Wuhan, China. Invited speaker at the "International Conference on Stochastic Analysis and Related Fields". Title of the talk: "Equivalence of quantum covariance with respect to uncertainty relations".
- 2008 University of Rome "La Sapienza". Probability and Statistics Seminar. Title of the talk: "Geometry of Fisher information and the uncertainty principle".
- 2007 Budapest University of Technology and Economics, Department for Mathematical Analysis. "von Neumann" Seminar. Title of the talk: "Lieb convexity, Fisher information and the uncertainty principle".
- 2007 Centro de Investigacion en Matematicas, Guanajuato, Messico. Invited speaker at the "28-th Conference on Quantum Probability and Related Topics". Title of the talk: "A Robertson-type uncertainty principle by quantum Fisher information".

- 2007 Mathematical Research and Conference Center, Bedlewo, Poland. Invited speaker at the "10th Workshop on Non-Commutative Harmonic Analysis with Applications to Probability". Title of the talk: "Means, monotone functions, Fisher information: an invitation to quantum theory".
- 2007 University of Nottingham. Invited speaker at the workshop "Informational Complexity: Noncommutativity and Interaction". Title of the talk: "Quantum dynamics, uncertainty principle and quantum Fisher information".
- 2007 Università degli Studi del Molise, Campobasso, Italy. Invited speaker at the "International Workshop on Quantum Probability and its Applications". Title of the talk: "Means, monotone functions, Fisher information: from classical diversity to quantum unity".
- 2006 Politecnico di Milano. Invited speaker at the workshop "Quantum Probability and its Applications". Title of the talk: "Uncertainty principle and quantum Fisher information".
- 2005 Tokio University. Invited speaker at the Second Conference "Information geometry and its applications". Title of the talk: "Quantum Fisher information and uncertainty principle".
- 2005 Politecnico di Torino Seminar. Title of the talk: "When curvature behaves like entropy".
- 2003 Scuola Normale Superiore di Pisa Centro "Ennio De Giorgi". Bimester "Probability and Statistical Mechanics in Information Sciences". Teacher of the minicourse: "Quantum Fisher information and its geometry".
- 2002 Politecnico di Milano Invited speaker at the Congress "Quantum Probability and Infinite Dimensional Analysis". Title of the talk: "Geometry of entropy: from classical to quantum theory".
- 2002 University of Chieti-Pescara School of Economics Conference "Information Geometry and its Applications". Title of the talk: "Some open problems in non-commutative information geometry".
- 2001 International Center for Mathematical Research (Levico, Trento, Italy) Invited speaker at the Congress "Quantum Probability". Title of the talk: "Relative entropies, monotone metrics and the square roots".
- 2000 University of Chieti-Pescara School of Economics Seminar. Title of the talk: "The geometry of statistical models: some recent results".
- 2000 King's College of London Visitor at the Department of Mathematics. Invited speaker at the Conference "Disordered and complex systems" (Official Satellite Conference of the 13rd International Congress on Mathematical Physics). Title of the talk: "Alpha-connections for quantum information manifolds".
- 1999 Université de Grenoble Invited speaker at the 31mes Journes de Statistique (Société Française de Statistique). Title of the talk: " L^p -connections, α -connections and the notion of statistical manifolds".
- 1998 University of Bari Congress "Infinite Dimensionale Analysis and Quantum Probability". Title of the talk: " α -connections on statistical manifold by geometry of L^p -spaces: non-parametric and non-commutative case".

- 1998 University of Padova XIII Congress "Mathematical Theory of Networks and Systems".
 Title of the talk: "Analytical and geometrical properties of statistical connections in Information Geometry".
- 1997 I. Newton Institute for Mathematical Sciences, University of Cambridge (GB) Invited speaker for the Programme "Neural Networks and Machine Learning". Title of the talk: "Non-parametric statistical connections by embeddings of densities in Orlicz spaces".
- 1997 Centro "V. Volterra", University of Rome "Tor Vergata" Seminar. Title of the talk: "Gauge-invariant formulation of the Yang-Mills equations by the Levy laplacian".
- 1997 University of Rome "Tor Vergata" (Villa Campitelli, Frascati) Invited speaker at the Congress "Infinite Dimensional Analysis and Quantum Probability". Title of the talk: "Non-parametric statistical manifolds: dual connections and generalized Amari embeddings".
- 1996 University of Vienna "IV World Congress of Bernoully Society". Title of the talk: "Connections on the exponential statistical manifolds".
- 1996 University of Palermo, Department of Mathematics and Applications Seminar. Title of the talk: "Connection theory and induced representation".
- 1995 University of Bari Congress "Quantum Probability and Infinite Dimensional Analysis". Title of the talk: "Covariant path group representations and bundle-connection pairs".
- 1993 Centro "V. Volterra", University of Rome "Tor Vergata" Seminar. Title of the talk: "Mean curvature and Laplace operator in infinite dimension according Paul Lévy".
- 1992 Bardonecchia X Italian National Congress on Relativity and Gravitational Physics. Title of the talk: "A Stone-von Neumann theorem for curved manifolds".
- 1991 Mathematisches Forschunginstitut Oberwolfach Congress "Quantum Probability". Title of the talk: "Induced representations of path groups and parallel transports".
- 1991 University di Siena Congress "International workshop on Probabilistic methods in Mathematical Physics". Title of the talk: "A geometric generalization of induced representation".

6 Teaching

- 2018-2019 Mathematics for MSc in Economics and for the MSc in Finance and Banking—School of Economics, University of Rome "Tor Vergata".
- 2017-2018 Mathematics for MSc in Economics and for the MSc in Finance and Banking
 – School of Economics, University of Rome "Tor Vergata".
- 2016-2017 Mathematics for MSc in Economics and for the MSc in Finance and Banking
 – School of Economics, University of Rome "Tor Vergata".
- 2015-2016 Mathematics for MSc in Economics and for the MSc in Finance and Banking-School of Economics, University of Rome "Tor Vergata".
- 2014-2015 Mathematics (Part II) for BSc in Business and Economics School of Economics, University of Rome "Tor Vergata".

- 2014-2015 Mathematics for MSc in Economics and for the MSc in Finance and Banking—School of Economics, University of Rome "Tor Vergata".
- 2013-2014 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2012-2013 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2011-2012 Linear Algebra and Probability School of Economics, University of Rome "Tor Vergata".
- 2010-2011 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2008-2009 Mathematics for economics applications School of Economics, University of Rome "Tor Vergata".
- 2008-2009 Probability School of Economics, University of Rome "Tor Vergata" (exercise section).
- 2007-2008 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2006-2007 Mathematics for economics applications School of Economics, University of Rome "Tor Vergata".
- 2005-2006 Mathematics for economics applications School of Economics, University of Rome "Tor Vergata".
- 2004-2005 Probability ans Stochastic Processes School of Economics, University of Rome "Tor Vergata".
- 2004-2005 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2003-2004 Mathematics School of Economics, University of Rome "Tor Vergata".
- 2003-2004 Advanced Probability and Mathematical Statistics, School of Economics, University of Chieti-Pescara.
- 2003-2004 Probability and Decision Theory School of Economics, University of Chieti-Pescara.
- 2002-2003 Advanced Calculus School of Economics, University of Chieti-Pescara.
- 2001-2002 Probability School of Economics, University of Chieti-Pescara.
- 2001-2002 Advanced Calculus School of Economics, University of Chieti-Pescara.
- 2000-2001 Probability Politecnico di Torino (exercise section).
- 1999-2000 Probabilistic and statistical models Politecnico di Torino (exercise section).
- 1999-2000 Probability Politecnico di Torino (exercise section).
- 1998-1999 Probability Politecnico di Torino (exercise section).
- 1997-1998 Probability Politecnico di Torino (exercise section).
- 1997-1998 Probabilistic and statistical models Politecnico di Torino (exercise section).

- 1996-1997 Probabilistic and statistical models Politecnico di Torino (exercise section).
- 1996-1997 Probability Politecnico di Torino (exercise section).
- 1995-1996 Probability Politecnico di Torino (exercise section).
- 1992-93 Teacher of Mathematics Istituto Statale "A. Diaz", Rome.
- 1988 Teaching Assistant at the University of Minnesota (Minneapolis, USA) Advanced Calculus (exercise section).

7 Conference organizations

• 2018 Member of the Program Committee for the 9th International Conference on Guided Self-Organisation (GSO-2018): Information Geometry and Statistical Physics, Max Planck Institute for Mathematics in the Sciences.

Webpage: https://www.mis.mpg.de/calendar/conferences/2018/gso18.html

• 2016 – Member of the Organizing Committee of the Fourth International Conference "Information Geometry and its Applications", Liblice Castle, Czech Academy of Sciences.

Webpage: http://igaia.utia.cz

• 2010 – Member of the Organizing Committee of the Third International Conference "Information Geometry and its Applications", University of Leipzig.

Webpage: http://www.mis.mpg.de/calendar/conferences/2010/infgeo.html

• 2008 – Scientific responsable for the Congress "Mathematical Explorations in Contemporary Statistics", University of Genova.

Webpage: http://www.dima.unige.it/rogantin/GP/gp65.html

• 2005 – Member of the Scientific Committee of the Second International Conference "Information Geometry and its Applications", Tokio University.

Webpage: http://www.stat.t.u-tokyo.ac.jp/ infogeo/index.html

2002 Member of the Organizing Committee of the International Conference "Information Geometry and its Applications", School of Economics, University of Chieti-Pescara "G. D'Annunzio".

Webpage: http://www.sci.unich.it/convegni/2002/infgeo/

• 1985 Member of the Organizing Committee for the Congress "Is Mathematics part of our culture?" on the teaching of Mathematics, University of Rome "La Sapienza".

8 Phd students

• 2008 Daniele Imparato. Scuola di Dottorato of the Politecnico di Torino. Ph. d. in Mathematics for the Engineering Sciences.

9 Coordination Activities

- 2015 Member of the Committee for the Research Quality Evaluation, Department of Economics and Finance, Università degli Studi di Roma "Tor Vergata".
- 2014 Member of the Committee for the selection of the students applying for Bachelor of Science in "Business & Economics", School of Economics, Università degli Studi di Roma "Tor Vergata".
- 2014 Head of the Committee for the pre-activating phase for the Bachelor of Science in "Business & Economics", Università degli Studi di Roma "Tor Vergata".
- 2012-2014 Faculty of the PhD Program in Economics and Finance, Università degli Studi di Roma "Tor Vergata".
- 2010-2012 Faculty of the PhD program in Econometrics and Empirical Economics, University of Rome "Tor Vergata".
- 2011-2014 Faculty of Master of Science in Economics and of the Master of Science in Finance and Banking, Università degli Studi di Roma "Tor Vergata".
- 2012 2014 Member of the Committee for the selection of the students applying for MSc in Economics and for the MSc in Finance and Banking, School of Economics, Università degli Studi di Roma "Tor Vergata".
- 2012-2014 Head of the Committee for the Fellowships for Meritorious Students, School of Economics, Università degli Studi di Roma "Tor Vergata".

10 Research Grants

- 2018 Funds from University of Rome "Tor Vergata" Participant of the project "Operator Algebras and Applications to Noncommutative Structures in Mathematics and Physics" financed by the program *Mission: sustainability*.
- 2016 Funds from University of Rome "Tor Vergata" Participant of the project "Operator Algebraic Structures in Noncommutative Geometry" (coordinator Daniele Guido) financed by the program *Consolidate the Foundations*.
- 2013 Funds from University of Rome "Tor Vergata" to invite G. Misiolek of the Department of Mathematics, University of Notre Dame, Indiana, USA.
- 2012 Funds GNAMPA INDAM (Italian National Institute for Higher Mathematics) to invite S.Luo of the Chinese Academy of Sciences.
- 2011 Funds from University of Rome "Tor Vergata" to invite F.Hansen of the Institute for International Education, Tohoku University, Japan.
- 2008 Funds GNAMPA INDAM (Italian National Institute for Higher Mathematics) for the Congress "Mathematical Explorations in Contemporary Statistics", University of Genova.

Webpage: http://www.dima.unige.it/rogantin/GP/gp65.html

- 2002-06 EU Research Training Network Quantum Probability with applications to physics, information theory and biology.
- 2010-11 Italian Ministry of University PRIN National coordinator: Roberto Longo
- 2007 Italian Ministry of University PRIN National coordinator: Luigi Accardi
- 2005 Italian Ministry of University PRIN National coordinator: Franco Fagnola
- 2002 Italian Ministry of University PRIN National coordinator: Franco Fagnola
- 2001 Italian Ministry of University PRIN National coordinator: Maurizio Pratelli
- 2000 Italian Ministry of University PRIN National coordinator: Franco Fagnola
- 1998 Italian Ministry of University PRIN National coordinator: Alessandra Giovagnoli.

11 Fellowships

- 1994-5 Post-doc fellowship of the University of Pavia.
- 1994 Fellowship of the CNR (Italian National Council of Reasearch)
- 1988 Fellowship of the University of Minnesota (Minneapolis, USA).
- 1986 Fellowship of the INDAM "Francesco Severi" (Italian National Institute for Higher Mathematics).
- 1986 Summer Fellowship of the CNR (Italian National Council of Reasearch) at the University of Perugia.
- 1984 Fellowship of the CNR (Italian National Council of Reasearch).

12 Editorial and Referee activities

- 2018 Referee for a Resident Professor position at the Santa Fe Institute, Santa Fe, NM, Usa.
- 2016 Referee for an associate professor position at the Academy of Mathematics and Systems Science, Chinese Academy of Sciences.
- 2016 Referee for the Romanian National Council for Scientific Research.
- 2016 Referee for the IEEE International Symposium on Information Theory, Barcellona.
- 2015 Referee for the Phd theses of the Indian Institute of Space Science and Technology.
- 2014 Referee for a postdoctoral position at the Institute of Science and Technology, Austria.
- 2013 Referee for the volume *Banach and Function Spaces IV*, Proceedings of the Fourth International Symposium on Banach and Function Spaces 2012, Sep. 12-15, 2012, Kitakyushu, Japan.
- 2012 Referee for the Romanian National Council for Scientific Research.

- 2012 Referee for the postdoctoral fellowships of the Engineering and Physical Sciences Research Council, UK.
- 2012 Referee for the attribution of the Otto Hahn Medal Max Planck Society, Germany.
- 2011 Referee for an associate professor position at the Department of Mathematical Analysis,
 Institute of Mathematics of the Budapest University of Technology and Economics.
- 2011 Referee for the survey of leading scientists on Japan's World Premier International Research Center Initiative (WPI Program), conducted under the auspices of the Japan Society for the Promotion of Science (JSPS).
- 2006 Referee for a full professor position at the Department of Information Network Science of the Tokio University of Electro-Communications.
- Member of the Editorial Board for
 - Advances in Statistics (2013 2016);
 - AIMS Mathematics (American Institute of Mathematical Sciences);
 - Information Geometry (2018);
 - ISRN Probability and Statistics (2012 2017);
 - The Scientific World Journal Mathematical Analysis. (2013 2016).
- Referee for the following Journals:
 - Acta Applicanda Mathematicae;
 - Advances in Operator Theory;
 - Bernoulli;
 - Bulletin of the London Mathematical Society;
 - Communication in Mathematical Physics;
 - Entropy;
 - IEEE Transactions on Information Theory;
 - Infinite Dimensional Analysis, Quantum Probability & Related Topics;
 - Information Sciences;
 - International Journal of Quantum Information;
 - International Journal of Theoretical Physics;
 - Journal of Mathematical Analysis and Applications;
 - Journal of Mathematical Inequalities;
 - Journal of Mathematical Physics;
 - Journal of Physics A: Mathematical and Theoretical;
 - Kybernetika;
 - Linear Algebra and its Applications;
 - Neurocomputing;
 - Open Systems and Information Dynamics;

- Physica A;
- Positivity.
- Quantum Information & Computation;
- Reports in Mathematical Physics;
- Research and Communications in Mathematics and Mathematical Sciences;
- Review in Mathematical Physics.
- Reviewer for Mathematical Reviews (2004-2006).

13 Other Editorial experiences

- 1997-1998 Design and realization of the mathematical section of the Appendix 2000, Enciclopedia Italiana "G. Treccani" (joint work with L. Accardi and Ana Millan-Gasca).
- 1990-98 Editorial activity at the Istituto della Enciclopedia Italiana "G. Treccani".
 - i) "History of XX century", volume "Mathematics and Logic". Translation of the Chapters: Measure theory (M. Sion), Geometry of transformation groups (B.A. Rosenfeld), Functional Analysis (J. Dhombres), Randomness (P. Vitanyi), Mathematics in United States (J.W. Dauben), Dynamical Systems (V.S. Afraimovich, L.A. Bunimovich, J.K. Hale), The development of mathematics in China in the XX century (Z. Dianzhou, Z. Zugui).

General revision of the volume.

- ii) Appendix 2000 of the Enciclopedia. Translation of the items: The Painlevé problem (H. Umemura), The last Fermat theorem (A. van der Poorten), Geometry (R. Kobayashi). General revision of the Appendix.
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