CURRICULUM VITAE Florin Rădulescu

BIRTH DATE: August 15, 1960.

Ph. D. in Mathematics: June 1991, University of California at Los Angeles

Title of Thesis: The fundamental group of the free group with infinitely many generators is $R_+\setminus\{0\}$.

Thesis Advisor: S. Popa.

Mathematical Interests: Operator Algebras, Ergodic Theory, Group Representations, Number Theory, Mathematical Physics.

EDUCATIONAL BACKGROUND:

• Fall 1990- Spring 1991, University of California, Los Angeles.

Degree received: Ph. D. in Mathematical Sciences, June 1991.

•February 1989- Degree Received: Candidate to Doctor in Mathematics,

Section of Mathematics, INCREST (actually Institute of Mathematics Romanian Academy).

Advisor: Prof. F.-H. Vasilescu This degree meant the admittance of the candidate to start a research

program leading to a doctoral degree. During 1985-1989 there were only a limited number

(25 aprox. in mathematics) of positions in such a program in Romania. Since 1985,

February 1989 was the first date when new positions in this program were allowed.

•Fall 1983- Spring 1984, University of Bucharest, Romania.

Degree received: Diploma of Specialization in Mathematical Analysis, 6/1984.

Field of specialization: Modern Analysis and Operator Theory.

Thesis Advisor: Prof F.-H. Vasilescu

•Fall 1979- Spring 1983, University of Bucharest, Romania.

Degree received: (Romanian) Masters in Mathematics, 6/1983.

Field of specialization: Operator Theory, Quantum Mechanics, Partial

Differntial Equations.

Thesis Advisor: Prof. M. Şabac

PROFESSIONAL EXPERIENCE:

- Professor, University of Rome 2, nominated in the program "Chiamata con Chiara Fama" of the Italian Education Minister, 2002 -ongoing
- •Principal Researcher 1, (CP1) Institute of Mathematics of the Romanian Academy, Spring 2002-ongoing
- •Professor, University of Iowa, Spring 1996-2006
- •Assoc. Prof., University of Iowa, August 1994-Spring 1996.
- •NATO-NSERC Postoctoral Research Fellow, University of Toronto, Summer 1994.

Sponsor: Prof. G. A. Elliott

•Miller Postdoctoral Research Fellow at the University of California at Berkeley,

August 1992-July 1994. Sponsor: Prof. D. Voiculescu.

- Maitre des Conferences, 1 classe, Université Paris 7, Spring 1992.
- •Postdoctoral Research Fellow, Institut des Hautes Études Scientifiques,

Bures sur Yvette, Sept. 1991- Aug 1992.

(Combined UCLA-IHES postdoctoral research fellowship).

•Researcher, Institute of Mathematics of the Romanian Academy,

Summer 1987- Spring 2002.

•Junior Researcher, Institute of Mathematics of the Romanian Academy,

Fall 1984- Spring 1987. Supervisor: Prof. F-H. Vasilescu

PUBLICATIONS:

- 1 Florin Rădulescu, On unbounded, non-trivial Hochschild cohomology in finite von Neumann algebras and higher order Berezin's quantization, Revue Roumaine de Mathematiques Pures et Appliquees, Volume LVIII (2014), no 2.
- 2 F. Rădulescu, Free group factors and Hecke operators, notes taken by N. Ozawa, Proceedings of the 24th Conference in Operator Theory, Theta Advanced Series in Mathematics, Theta Foundation, 2014.
- **3** Rădulescu, Florin Conditional expectations, traces, angles between spaces and representations of the Hecke algebras. Lib. Math. (N.S.) 33 (2013), no. 2, 65-95.
- 4 Capraro, Valerio; Rădulescu, Florin Cyclic Hilbert spaces and Connes' embedding problem. Complex Anal. Oper. Theory 7 (2013), no. 4, 863-872.
- **5** Rădulescu, Florin A universal non-commutative C*-algebra associated to the Hecke algebra of double cosets. An operator theory summer, 95-104, Theta Ser. Adv. Math., 13, Theta, Bucharest, 2012.
- 6 Rădulescu, Florin, A non-commutative, analytic version of Hilbert's 17th problem in type II1 von Neumann algebras. Von Neumann algebras in Sibiu, 93-101, Theta Ser. Adv. Math., 10, Theta, Bucharest, 2008.
- 7 Rădulescu, Florin, The von Neumann algebra of the non-residually finite Baumslag group $ab^2a^{-1}=b^3$ embeds into R^{ω} . Hot topics in operator theory, 173-185, Theta Ser. Adv. Math., 9, Theta, Bucharest, 2008.
- 8 Rădulescu, Florin Non-commutative Markov processes in free groups factors, related to Berezin's quantization and automorphic forms. Acta Univ. Apulensis Math. Inform. No. 14 (2007), 5-96.
- **9** F. Rădulescu, Combinatorial aspects of Connes's embedding conjecture and asymptotic distribution of traces of products of unitaries., Proceedings of the Operator Algebra Conference, Bucharest 2006, Theta Foundation.
- 10 Rădulescu, Florin Irreducible subfactors derived from Popa's construction for non-tracial states. Recent advances in operator theory, operator algebras, and their applications, 229–247, Oper. Theory Adv. Appl., 153, Birkhuser, Basel, 2005
- 11 Rădulescu, Florin, A comparison between the max and min norms on $C^*(F_n) \otimes C^*(F_n)$. J. Operator Theory 51 (2004), no. 2, 245–253
- 12 Dykema, Kenneth J.; Rădulescu, Florin, Rescalings of free products of II₁-factors. *Proc. Amer. Math. Soc.* 131 (2003), no. 6, 1813–1816.
- **13** C. D'Antoni, R. Longo, Roberto; F. Rădulescu, Conformal nets, maximal temperature and models from free probability. *J. Operator Th.* **45** (2001), no. 1, 195–208.
- 14 Nest, Ryszard; Radulescu, Florin Index of Γ-equivariant Toeplitz operators. in C^* -algebras , 151–160, Springer, Berlin, (2000).
- 15 Dykema, Kenneth J.; Rădulescu, Florin, Compressions of free products of von Neumann algebras. *Math. Ann.* 316 (2000), no. 1, 61–82.
- 16 Rădulescu, Florin Finite generation properties for Fuchsian group von Neumann algebras tensor B(H). *Proc. Amer. Math. Soc.* 128 (2000), no. 8, 2405–2411
- 17 F. Rădulescu, Convex sets associated with von Neumann algebras and the Connes' approximate embedding problem, *Math. Res. Lett*, **6**,no. 2, 229–236. 1999.
- 18 F. Rădulescu, The Γ invariant form of the Berezin quantization of the upper halfplane, Memoirs American Mathematical Society, vol 535, 1998.
- 19 Quantum dynamics and Berezin's deformation quantization, in *Operator Algebras and Quantum Field Theory*, S. Doplicher and al., edts., International Press 1997, pp. 383-389.
- **20** F. Rădulescu, A new invariant for subfactors of free group von Neumann algebras,in *Free Probability Theory* D. V. Voiculescu edt., American Mathematical Society, 1996, pp.213-240.
- 21 F. Rădulescu, The arithmetic Hecke operators and Berezin Quantization, Comptes Rendu Acad. Sci. Paris, 1996.
- 22 F. Rădulescu, A type III_{λ} factor with core isomorphic to the free group von Neumann algebra of a free group tensor B(H), in Proceedings of the Operator Algebras Conference 1992, Orléans, Asterisque, G. Skandalis, ed., Paris, France, June 1995.

- 23 F. Rădulescu, Random matrices, amalgamated free products and subfactors in free group factors of noninteger index, *Inv. Math.* 115 (1994), 347-389.
- 24 F. Rădulescu, On the von Neumann algebra of Toeplitz operators with automorphic symbol, in Subfactors, Proceedings of the Taniguchi Symposium, Kyoto 1993, H. Araki, H. Kosaki eds., World Scientific, 1994; pp. 287-293.
- 25 F. Rădulescu, The weak closure of the group algebras associated to free groups are stably isomorphic, Communications in Mathematical Physics 156 (1993), 17-36.
- **26** F. Rădulescu, A new invariant for subfactors of free group von Neumann algebras, *Comptes Rendu Acad. Sci. Paris* **316** (1993), 983- 988.
- 27 F. Rădulescu, Sous-facteurs de $L(F_{\infty})$ d'indice $4\cos^2\pi/n, n \geq 3$, Comptes Rendu Acad. Sci. Paris 315 (1992), 37-42.
- **28** F. Rădulescu, A one parameter group of automorphisms of $L(F_{\infty}) \otimes B(H)$ scaling the trace *Comptes Rendu Acad. Sci. Paris* **314** (1992), 1027-1032.
- 29 F. Rădulescu, The fundamental group of the von Neumann algebra of a free group with infinitely many generators is R+/0, Journal of the American Mathematical Society 5 (1992), 517-532.
- **30** F. Boca, F. Rădulescu, Singularity of the radial algebra in free products of finite groups, *Journal of Funct. Analysis* **93**, (1992), 138-159.
- **31** F. Rădulescu, Vanishing of $H^2(M, K(H))$ for certain von Neumann Algebras, Transactions of the American Math. Soc. **326** (1991), 569-584.
- **32** F. Rădulescu, Singularity of the radial algebra of $L(F_n)$ and the Pukanszky Invariant, *Pacific Journal of Mathematics* **151** (1991), 297-306.
- **33** F. Rădulescu, On some trace class norm estimates, J. of Operator Theory **23** (1990), 195-204.
- **34** F. Rădulescu, On smooth extensions of odd dimensional spheres and multidimensional Helton and Howe formula, *J. Reine Angew. Math.* **386** (1988), 145-171.
- **35** S. Popa, F. Rădulescu, Derivations of von Neumann algebras into the compact ideal space of a semifinite algebra, *Duke Mathematical Journal* **57** (1988), 485-518.
- **36** F. Rădulescu, F.-H. Vasilescu, Matrix operators and hyperinvariant subspaces *J London Math.Soc.* **36**, (1987), 327-338.
- 37 F. Rădulescu, Spectral properties of generalized multipliers J. Operator Theory 14 (1985), 277-289.
- **38** F. Rădulescu, Derivatives of analytic functions, Rev. Roum. Math. Pures Appl. **26** (1981), 141-142.
- **39** F. Rădulescu, A topological property of R^2 related to Froda theorem concerning discontinuities, *Rev. Roum. Math. Pures Appl.* **26** (1981), 1385-1389.
- 40 F. Rădulescu, On the frontier operator, Bull. Math. Soc. Acad. Roumanie 24 (1980), 401-406.

Work in progress-Circulated Preprints

- 1 F. Rădulescu, Type II₁ von Neumann representations for Hecke operators on Maass forms and Ramanujan-Petersson conjecture, Preprint, arXiv:0802.3548, submitted to J. of Non-commutative Geometry.
- 2 F. Rădulescu, Unitary representations restricting to the regular representation of an almost normal subgroup, Preprint arXiv:1306.4232, submitted to Comm. Math. Phys
- **3** F. Rădulescu, On the countable, measure preserving relation induced on an homogeneous quotient, by the action of a discrete group, Preprint arXiv:1208.2467, submitted to Complex Analysis and Representation Theory.
- 4 F. Rădulescu, Spaces of vectors fixed by a type II representation of a discrete group, and their endomorphisms, arXiv:1407.0890

RESEARCH FUNDING

- Program Director, Sept 2013-Sept 2016, Project "Operator Algebra and Number Theory Application", Executive Agency for Higher Education, Research Development and Innovation Funding, Romania, UEFISCDI (PN-II-ID-PCE-2012-4)
- Program Director, "Dezvoltarea unui parteneriat european pentru studiul unor probleme actuale de analiza matematica" EU-ANAMAT, Contract of Scientific Cooperation in the Program of Excellence in

Research (Programul de Cercetare de Excelenta) of National Authority for Scientific Research, Romania, Nr. CEx06-M3-102/01.08.2006 August 2006 - July 2008,

- NSF Research Grant, Principal Investigator, for the three year period 2003-2006
- NSF Research Grant, Principal Investigator, for the three year period 1999-2002.
- NSF Research Grant, Principal Investigator, for the three year period 1996-1999.
- NSF Support for the CBMS meeting in Iowa City, August 1997, (as coinvestigator, PI. Tom Branson)
- Coinvestigator, EU-Noncommutative Geometry, Research training network, Rome node
- Key Senior Scientist, MSRI, 1 year Program in Operator Algebra (the grant covered funding for 6 month participation in the program), 2000

Students

- Supervising Sara Malacarne, Master Thesis (Laurea Specialistica) degree received May 2014.
- Supervising two Ph. D Thesis students at University of Rome 2, Liviu Paunescu, Valerio Capraro, University of Rome 2, PhD degree received in 2011
- Supervising toward a Ph. D degree in Mathematics six graduate students at University of Iowa, Il Woo Cho (since 2000-2005, PhD awarded 2005), Stefan Bildea (2001-2005, PhD awarded 2005), Gabriel Picioroaga (2001-2005, PhD awarded 2005), Marius Bogdan Stefan (PhD awarded 2000), Maria Grazia Viola (PhD awarded 2005), Ionut Chifan (2003-2006, continued PhD degree at UCLA, under the supervision of S. Popa).
- Supervision of a student in Honors Program leading to an Honors Thesis (Spring 1995).

AWARDS and FELLOWSHIPS:

- Faculty Award, University of Iowa Fall 1999. (Three years duration).
- Prize "Simion Stoilov" awarded by the Romanian Academy, Fall 1994. (Yearly award in mathematics by the Romanian Academy).
- NSERC-NATO Research grant, Toronto, Summer 1994.
- Travel Grant for Young Mathematicians of the International Mathematical Union to attend the International Mathematical Congress, Zurich, 1994.
- Miller Research Fellowship at the Miller Institute for Basic Research in Science, U. C. Berkeley, August 1992- July 1994.
- Combined Postdoctoral Research Fellowship from U.C.L.A and Institute des Hautes Études Scientifiques, Bures sur Yvette, Sept. 1991-Sept. 1992.
- Graduate Division Fellowship, U. C. L. A., Fall 1990-Spring 1991.
- Travel Grant for Young Mathematicians of the International Mathematical Union, to attend the International Mathematical Congress, Kyoto, Summer 1990.
- Award of the "Serghie Brothers Foundation" for graduating students at the University of Bucharest, June, 1983. (5 annual prizes, one in Mathematics).
- First prize at the national competition of undergraduate students: "Traian Lalescu", Romania, 1980.

SERVICE

Organizing International Conferences

- EU- Noncommutative Geometry Network, International Workshop on: Free Probabilities, Operator Spaces and von Neumann Algebras Sibiu, Romania, June 9 16, 2007, organizers Ken Dykema, Florin Radulescu
- Joint AMS-Romanian Math. Soc Meeting, Alba Iulia, July 2013, Operator Algebra Section, organizers M. Dădărlat, Florin Rădulescu
- Noncommutative Geometry and Applications organized by: Simion Stoilow Institute of Mathematics of the Romanian Academy, in cooperation with LEA Math-Mode and the GDRE GREFI-GENCO with support from "Transilvania" University from Brasov September 1 8, 2013, Poiana Braşov, România. organizers D. Guido, S. Vassout, F. Radulescu

Editorial Bord and reviewer

- Editoral Board, Journal of Operathor Theory, since 2011
- Editorial Board, Liberthas Mathematica, since 2013

- Referee for Journal of Operator Theory (since 1987), 1 paper/yr.
- Occasionally serving as a referee for the following journals: Pacific J. Mathematics, Trans AMS, Proc. London Mathematical Society, International Mathematical Journal, Indiana University Mathematical Journal (1 or 2 papers for each of those journals during the period 1992-2014), and for several proceedings.

Grant Evaluation

- Evaluator of grants results, Ideas Program, UEFISCDI (National Authority for Research Romania), 2014
- Reviewer for NSF proposals 2006, 2007
- Serving as Panel reviewer in Analysis for NSF, Arlington, Virginia, 1996,1997, 1999, 2000, 2002 Service Departmental
- Member PhD Thesis Committee, Institute of Mathematics Romanian Academy, (once yearly).
- Serving on Ph. D. Thesis Committee of Pierre-Yves le Gal, Université Paris 7, (Chair: Prof A. Connes), Paris, June 1994.
- Serving as a coordinator, during the year 1993-1994 for an (informal) seminar in Operator Algebra for V. Jones's Ph.D students, during his one year leave (at Jones's request).
- Serving as member on the committee for the admittance exam at the Mathematics Department, University of Bucharest, Sept. 1983.

PROFESSIONAL PRESENTATIONS

- 127 Invited Plenary Speaker, 25-th Conference on Operator Theory, Timisoara, Romania, June 30-July 4, A Theory of Gamma-invariant vectors
- 126 Invited Speaker, Non Commutative Geometry and Mathematical Physics, Scalea Italy, June 16-20, 2014, A Theory of Gamma-invariant vectors
- 125 Seminar Speaker, Geometric Group Theory Seminar, University of Vienna, Guest Prof. G. Arzhantseva "Hecke operators, discrete series unitary representations and Operator Algebras" May 7, 2014
- 124 Seminar Speaker, Geometric Group Theory, Univ of Geneve, April 2014, Guest Prof T. Nagnibenda
- 123 Noncommutative Geometry and Applications Poiana Brasov Sept 1-8 2013, Main Speker, "Unbounded Hochschild Cohomology"
- 122 Invited Lecture (4 1hour lectures) Random Matrices, Quantum Hall Effect, Geometric Group Theory, DYGEST CORFU MEETING 2013, Corfu (Greece) from 28th May 2013 to 31st May 2013. Ramanujan Petersson conjectures and Von Neumann Algebras
- 121 Invited Speaker, Disordered Systems and Random Matrix Theory, Center for Mathematics and Theoretical Physics, Univ Rome 3, March 14-15, 2013 Random matrices and Operator Algebras
- 120 Ramanujan Peterson Conjecture and Operator Algebra invited speaker, Conferinta "Diaspora in Cercetarea Stiintifica si Invatamantul Superior din Romania" Bucuresti, 25-28 Septembrie 2012, Workshop exploratoriu: Perspective asupra cercetarii matematice in societatea bazata pe cunoastere
- 119 Free groups, Sl(2, z[1/p])'s, Countable, measure preserving equivalence relations and Ramanujan Petersson Conjectures, invited speaker, 24nd International Conference on Operator Theory July 2-7, 2012 West University of Timisoara Timisoara, Romania
- 118 Seminar Speaker, Operator Algebra and Operator Theory Seminar, University of Iowa, May 2012, Guest Prof. P. Muhly
- 117 Free groups, Sl(2,z[1/p])'s, Countable, measure preserving equivalence relations and Ramanujan Petersson Conjectures.invited speaker Noncommutative Geometry: Multiple Connections. May 7-18, 2012, Ohio State University, Columbus, organizator Henri Moscovici, Vitaly Bergelson, James Cogdell, Alain Connes, Avner Friedman, Roman Holowinsky, Wenzhi Luo,
- 116 Free groups, Sl(2,z[1/p])'s, Countable, measure preserving equivalence relations and Ramanujan Petersson Conjectures., Workshop on the Connes'embedding conjecture, Neuchtel, 23-27 April 2012, Neuchatel, organization A. Valette
- 115 Ramanujan Petersson Conjectures and Operator Algebras, invited speaker, Harmonic Analysis, Deformation Quantization, Non Commutative Geometry (Scalea 5-9 Septembrie, 2011) organizatori P. Bieliavsky
- 114 Ramanujan Peterson Conjecture and Operator Algebra invited speaker, Al VII-lea Congres International al Matematicienilor Romani, Brasov, Iunie, 2011, Organizator Univ Bucuresti, Imar

- 113 Seminar Speaker, Geometric Group Theory Seminar, Univ Lausanne, May 2012, guest Prof N. Monod
- 112 Seminar Speaker, Operator Algebra Seminar, University of Oslo, 11 May 2011, guest Prof. S. Nesveyev
- 111 Quantum dynamics in problems related to von Neumann algebras and number theory, invited speaker, The 32nd International Conference on Quantum Probability and Related Topics (Levico Terme, May 29-June 4, 2011) organizatori L. Accardi, R. Hudson
- 110 Quantum Double in Hecke Algebras, invited speaker, Workshop "Random Matrix, Op. Alg, and Math Phys Aspects", Schroedinger Institute, April 2011, organizatori D. Voiculescu, Rolland Speicher
- 109 Hecke Operators and Operator Algebras, invited speaker, the 60-th Anniversary conferences dedicated to Ryszard Nest (Nestfest-september 2010) University of Copenhagen , organizatori: Erik Christensen, Copenhagen,
- 109 Ramanujan Petersson Conjectures and Operator Algebras, invited speaker, ICM 2010 Sattelite Conferences on: Operator Algebras (Chennai 9-13 August), organizatori S. Sunder
- 108 Ramanujan Petersson Conjectures and Operator Algebras, invited speaker, ICM 2010 Sattelite Conferences on: Quantum Probability and Related Topics Quantum Systems (Chennai 14-18 August) organizatori R. Bhat,
- 107 Quantum Dynamics and Operator Algebras, invited speaker, ICM 2010 Sattelite Conferences on: Quantum Probability and Related Topics (Bangalore 14-18 August) organizatori R. Longo, Ruskai
- 106 Between operator algebras and number theory, invited speaker, 23nd International Conference on Operator Theory June 29 July 4, 2010 West University of Timisoara Timisoara, Romania
- 105 Hecke Operators and Operator Algebras, invited speaker, the 60-th Anniversary conferences dedicated to Uffe Haagerup (Uffefest-april 2010) University of Copenhagen, organizatori: Erik Christensen, Copenhagen,
- 104 Ramanujan Peterson Conjectures and von Neumann Algebras invited speaker, NORTH BRITISH FUNCTIONAL ANALYSIS SEMINAR, University NewCastle (upon Tyne) 30-31 October 2009, organizatori J. Zacharias
- 103 Operator algebra and arithmetic Hecke operators, invited speaker, ICTAMI 2009, Alba Iulia, September 3-6, 2009, organizer Daniel Breaz
- 102 invited speaker, Noncommutative Geometry and Quantum Physics Vietri sul Mare, August 31 September 5, 2009, title Quantum Dynamics and Operator Algebras organizar R. Longo, D.Guido
- 101 Operator algebra methods in the study of arithmetic Hecke operators, invited speaker, The 60th Anniversary of the Institute of Mathematics of the Romanian Academy June 25-27, 2009, Bucharest, Romania
- 100 invited speaker, Workshop on Operator Algebras, Conformal Field Theory and Related Topics; , organizatori: Roberto Longo, September 8-19, 2008, Vienna, Hecke Operators and type II1 factors,
- 99 Hecke Operators and Operator Algebras., invited speaker, C*-Algebras, Organizers: Claire Anantharaman-Delaroche, OrleansSiegfried Echterhoff, Mnster, Uffe Haagerup, Odense, Dan Voiculescu, Berkeley, August 17th August 23rd, 2008, Oberwohlfach
- 98 Hecke Operators and Operator Algebras. , invited speaker, 22nd International Conference in Operator Theory July 3-8, 2008 Universitatea de Vest Timisoara, Romania, organization D. Timotin
- 97 Invited speaker, EU-NCG Annual meeting, Dublin, June 16-20, 2008; , organizatori: David Evans, title Hecke Operators and type II1 factors, (2008),
- 96 Hecke Operators and Operator Algebras., Workshop Center in Non-commutative Geometry, MI, Copenhagen University University of Copenhagen, February 25-29, 2008, organization R. Nest
- 95 Hecke Algebras invited speaker, Al VI-lea Congres International al Matematicienilor Romani, Bucuresti, Iunie, 2007, Organizator Univ Bucuresti, Ima
- 94 iEU- Noncommutative Geometry SIBIU 2007 International Workshop on: Free Probabilities, Operator Spaces and von Neumann Algebras
- 93 Invited speaker, Operator Theory Conference, Timisoara, July 2006
- 92 Colloquium Speaker, Dept of Mathematics, University of Odense, December 2005
- 91 6th Operator Algebras International Conference, IMAR, Bucharest, Romania, August 10 17, 2005, Invited speaker
- **90** Third Annual Spring Institute on Noncommutative Geometry and Operator Algebras, Vanderbilt, May 2005, plenary speaker.

- 89 Colloquium Speaker, Dept of Mathematics, University of Puorto Rico, December 2004 (1 hour)
- 88 Invited speaker, Free Probabilty Conference, Banff Institute of Mathematics, November 2004, (1 hour)
- 87 Colloquium Speaker, Dept of Mathematics, Georgia State University, November 2004 (1 hour)
- 86 Invited presentation, von Neuman Algebra section, AMS Regional Meeting, Nashville, November 2004 (20 min).
- 85 Invited speaker, Wabash Analysis Conference, October 2004, (1 hour)
- 84 Invited speaker, Concentration Week in Free Probability and Noncommutative Lp spaces, College Station, Texas, August 2004, (1 hour)
- 83 Invited speaker, 14th Operator Theory Conference, Timisoara, Romania, July 2004 (1 hour)
- 82 Invited speaker, Conference on Non-commutative Geometry, Poincare Institut, Paris, July 2004
- 81 Invited speaker, Korean Operator Theory Operator Algebra Conference, June 2004 (1 hour)
- 80 Colloquium Speaker in the Seminar of the Institute of mathematics, Romanian Academy, November 2003, (1 hour)
- 79 Invited plenary speaker, Operator Algebra and Mathematical Physics, July 2003, Sinaia (Romania), (1 hour)
- 78 Invited plenary speaker, Operator Algebra and Operator Theory Conference, June 2003, Palermo, Torre Normanna, (1 hour)
- 77 Invited speaker, Workshop on subfactors, University of Rome, November 2002.
- 76 Invited speaker, Conference on Operator Theory, June 2002, Timisoara, Romania (1 hour).
- 75 Invited Lecturer, University of Copenhagen, May 2002 (1 hour).
- 74 Invited Speaker, Joint seminar, Welsh Universities, Cardiff, February 2002 (1 hour)
- 73 Invited Plenary Speaker, Workshop on Free Probabilty and Operator Spaces, University of Toronto Dec. 2001, 1 hour.
- 72 Invited Plenary Speaker, Conference on Operator Algebras and Mathematical Physics, Constantza, Romania, July 2001.
- 71 Invited Plenary Speaker, Workshop on Free Probabilty and Operator Spaces, Mathematical Sciences Research Institute, Berkeley Jan. 2001, 1 hour.
- 70 Lecturer in Seminar on Operator Algebras, Mathematical Sciences Research Institute, Octomber 2000, Berkeley, 1 hour
- **69** Invited Plenary Speaker, Mathematical Phisics and Operator Algebra Conference for the 60-th aniversary of S. Doplicher and J. Roberts, Sienna June 2000, 1 hour
- **68** Invited Plenary Speaker, 12-th Operator Theory and Operator Algebra Conference, Timisoara, June 2000, 1 hour
- 67 Invited Plenary Speaker, Workshop on Free Probabilty and Operator Spaces, Institut Emil Borel, Paris Jan. 2000, 1 hour.
- 66 Colloquium Speaker, Institute of Mathematics, Bucharest Jan 2000, 1 hour.
- 65 Invited Plenary Speaker, Anniversary Conference of the Institute of Mathematics, Romanian Academy, Bucharest, Summer 1999.
- 64 Colloquium Speaker, University of Rome 2 Dec. 1999, 1 hour.
- 63 Colloquium Speaker, University of Marseille Dec. 1999, 1 hour.
- 62 Invited Lecturer, Seminar on Free Probabilty, Institut Emil Borel, Paris Nov. 1999, 1 hour.
- 61 Invited Plenary Speaker, Workshop on Free Probabilty, Institut Emil Borel, Paris Sept 1999, 1 hour.
- 60 Invited Speaker, Anual Operator Algebras Conference, European Network, Cargese, June 1999 1 hour.
- 58 Invited Speaker, Seminar on Free Probabilty, Schroedinger Inst., Viena, Jan 1999, 1 hour.
- 57 Plenary Spaeaker, C*-Algebras Conference, (1/2 hour lecture), Copenhagen, 1998.
- 56 Colloquium Speaker, Department of Mathematics, University of Rome, Tor Vergata, June 1998.
- 55 Invited Spaeaker, C*-Algebras Conference, (1 hour lecture), Oberwohlfach, Germany, February 1998.
- 54 Colloquium Speaker, Institute of Mathematics, Romanian Academy, January 1998.
- 53 Invited Speaker, Free Probabilty Conference, Marseille, (1 hour lecture), January 1998.
- **52** Invited speaker, Seminaire des Algebres des Operateurs, College de France, Seminaire of Alain Connes, June 1997.
- **51** Colloquium lecture, University of Rome, March 1997.
- 50 Colloquium lecture, University of Orleans, Seminar on Operator Algebras, 3 lectures, February 1997.

- 49 Invited Main Speaker, Conference on Subfactors and Quantum Field Theory, Rome, July 1996.
- 48 Invited speaker, AMS Special Meeting on Quantization, Mount Holyook, July 1996
- 47 Invited Speaker, C*-Algebras Conference, (1 hour lecture), Oberwohlfach, Germany, April 1996
- **46** Invited Speaker, C*-Algebras Conference, Nihon University, Tokyo, February 1996.
- 45 Invited Speaker, (90 min lecture), Department of Mathematics, University of Tokyo, February 1996.
- 44 Colloquium speaker, (1 hour lecture), Department of Mathematics, The University of Texas, Austin, November 1995.
- 43 Lecturer, Analysis Seminar, (1 hour lecture), University of Texas, Austin, November 1995.
- 42 Lecturer, Analysis Seminar, University of Tokyo, (90 min. lecture) September 1995.
- 41 Main invited speaker (1 hour lecture) Conference on Operator Algebras, with the occasion of the 150 anniversary of the Cork University, Cork, July 1995.
- **40** Main invited speaker, (two 1 hour and respectively 90 min. lectures), Workshop on Subfactors, in the School of Geometry and Physics, University of Aarhus, June 1995.
- 39 Main invited speaker, (1 hour), Workshop on Subfactors, held at the Fields Mathematical Institute, Canada, with the occasion of the special year in Operator Algebras. April 1995.
- 38 Main invited speaker, (80 min), at the "Workshop on Noncommutative Probability Theory" held at the Fields Mathematical Institute, Canada with the occasion of the special year in Operator Algebras. March 1995.
- **37** Lecture in the Functional Analysis Seminar, (1 hour), at the Institute of Mathematics of the Romanian Academy, Bucharest, January 1995.
- **36** Lecture at the University of Rome 2, (two 1 hour lectures), in the Operator Algebras Seminar, December 1994.
- 35 Lecture in the Functional Analysis Colloquium, (1 hour), University of Toronto, September 1995.
- **34** Main invited speaker, (1 hour), at the Satellite Conference of the International Congress, on Operator Algebras, Geneve, July 1994.
- 33 Colloquium speaker, (1 hour), in the Functional Analysis Colloquium at the University of Orleans, June 1994.
- 32 Invited speaker, (1 hour), in the Cartan Seminary at Université Paris 6, June, 1994.
- 31 Main invited speaker, (1 hour), at the Canadian Symposium on Operator Algebras, Ottawa, May 1994.
- 30 Colloquium speaker, (1 hour), in the Functional Analysis Colloquium at U. C. L. A., May 1994.
- 29 Colloquium speaker, (1 hour), at the University of California, Santa Barbara, May 1994.
- 28 Main invited speaker, (1 hour), at the Special Meeting on Operator Algebras, Oberwohlfach February, 1994.
- 27 Colloquium speaker, (1 hour), in "New directions in Mathematics" at the University of Montreal, February, 1994.
- 26 Colloquium speaker, (1 hour), IUPUI University at Indianapolis, Oct 1993.
- 25 Colloquium speaker, (1 hour), Functional Analysis Colloquium, U. C. Berkeley, Sept. 1993.
- 24 Invited speaker (1 hour), C.B.M.S Meeting, Eugene University, Oregon, Summer 1993.
- 23 Main invited speaker (two 1 hour lectures) at the Taniguchi Symposium celebrating the anniversary of Prof. M. Takesaki, Kyoto, Japan, Summer 1993.
- 22 Invited lecturer (1 hour) in V. F. R. Jones seminary, U. C. Berkeley, May 1993.
- 21 Short communication (30 min.) at Great Plains Operator Theory Symposium, Boulder Colorado, Summer 1993.
- 20 Invited lecturer, (eight 1 hour lectures), combined V. F. R. Jones D. Voiculescu Seminar, U. C. Berkeley, Fall 1992.
- 19 Colloquium speaker, (1 hour), Functional Analysis Colloquium, U. C. Berkeley, Sept. 1992.
- 18 Main invited speaker, (1 hour), at the West Coast Meeting in Operator Algebras, Fall '92, University of Reno, Reno.
- 17 Invited speaker, (30 min.), at the Conference on Operator Algebras with the occasion of the Anniversary of the Royal Danish Academy, Summer 1992, Copenhagen.
- 16 Invited lecture, (90 min.), in A. Connes Seminar, Collége de France, September 1991.
- 15 Colloquium speaker, (1 hour), Odensee University, May 1992.

- 14 Invited lecturer, (1 hour), Copenhagen University, May 1992.
- 13 Invited lecturer, (1 hour), Université Paris 7, February 1992.
- 12 Invited speaker, (1 hour), Satellite Conference at the European Congress of Mathematics on Operator Algebras, Orléans, summer 1992.
- 11 Invited Lecture, (90 min.), at the Université d'Orléans, February 1992, France.
- 10 Invited Lecture, (30 min.), at The Operator Algebras Canadian Symposium, Montreal, Spring 1991.
- 9 Colloquium speaker (1 hour) Functional Analysis Colloquium, U.C.L.A, Spring 1991.
- 8 Invited Lecture, (1 hour), U. C. Berkeley, March 91, Seminar of Professor V. F. R. Jones.
- 7 Invited Speaker, (1hour), Workshop on Subfactors, M. S. R. I., February 1991, Berkeley.
- 6 Invited lecturer, (90 min.), at the Université d'Orléans, Spring 1990 France.
- 5 Invited Speaker, (1 hour), at the Intnl. Conference on Operator Algebras and Ergodic Theory, Craiova, 1989.
- 4 Short communication, (30 min), St-Petersburg Institute of Mathematics, Fall 1988, seminar of Prof. A. Vershik.
- 3 Short communication, (30 min), St-Petersburg Institute of Mathematics, Fall 1988 Seminar of Prof. N. Nicolski.
- 2 Invited Speaker, (1 hour), at the Intnl. Conference on Operator Theory, Timişoara, Romania, 1988.
- 1 Invited Lecture, (30 min.), at the Intnl. Conf. Operator Theory, Bucharest, 1987.

RESEARCH VISITS:

- Ohio State University, 1 month participation Program: Interactions Between Ergodic Theory, Number Theory and Noncommutative Geometry, 1 month research visit, May 2012
- Von Neumann algebras and ergodic theory of group actions, April 18 July 9, 2011, Institut Henri Poincare in Paris, 1 month research visit
- 1 month research visits, IHES, 2006, 2011
- Third Annual Spring Institute on Noncommutative Geometry and Operator Algebras, Vanderbilt, May 2005, two weeks participation in the program.
- University of Copenhagen, May 2002
- University of Cardiff, February 2002
- University of Geneve, June-July 2001.
- Mathematical Sciences Research Institute, Berkeley, Fall 2000 Invited as Key Senior Scientist.
- University of Geneve, June-July 2000
- Institut Emil Borel, Paris, Fall 1999
- Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France, Fall 1999.
- University of Rome, Dec 1999 (Italian Research Council Fellow).
- University of Copenhagen, July 1999.
- University of Copenhagen, July 1998.
- University of Rome, June 1998 (Italian Research Council Fellow).
- University of Copenhagen, June 1997.
- Institut des Hautes Etudes Scientifiques, May 1997.
- University of Geneve, April 1997.
- University of Rome, March 1997 (Italian Research Council Fellow).
- University of Paris 7, May 1997, (Professeur visitateur).
- University of Orleans, February 1997, (Professeur visitateur).
- University of Tokyo, September 1995.
- University of Rome 2, Italy, December 1994, (Italian Research Council Fellow).
- University of Toronto and University of Waterloo, on the occasion of the special year in Operator Algebras, Fall 1994 (NATO research Fellow).
- Université Paris 6, France, Summer 1994.
- R.I.M.S, Kyoto, Japan, July 1993.
- University of Odensee and University of Copenhagen, Denmark, Spring 1992.
- Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France, May 1990.
- Japan, August, 1990, Int. Math. Congress.

• St-Petersburg Institute of Mathematics, November, 1988.

COURSES TAUGHT:

A. Undergraduate courses

- University of Rome 2, Mathematical Analysis, First year Laurea Magistrale, Informatica, 2010-2014
- University of Iowa,

Differential equations for Engineers, Spring 2005,2006

22M034 (two sections) Fall 2004

22M034, 22M115, Fall 2003

22M042, Fall 2002

22M028, Fall 2001

22M042, 22M100 Spring 2001

22M042, 22M026 Spring 2000

Calculus I, II, III: 22M025, 22M028, 22M42 (1997-1999) Matrix algebra for Engineers 22M:025 (Fall 1995); 22M40 (Fall 1995) Calculus 1, 22M:029 (Fall 1995); Linear Algebra, 22M:027 (Spring 1995); Foundations of Analysis, 22M:055 (Spring 1995).

- Université Paris 7, Spring 1992 Traveaux dirigés. This course in real analysis (equivalent to Calculus I) was aimed to students in their first year at the university.
- U.C.L.A., Spring 1991, Calculus 2 (discussion session).
- University Bucharest, Spring 1987, Complex Analysis in Several variables, (discussion session).
- Math. classes for high school students, Bucharest, Romania, Fall 1984- Spring 1985. The appointment at the Institute of Mathematics of the Romanian Academy required post-graduation teaching training
- Trainer, Romanian Team, International Math. Olympiad, 1984-1986.

B. Graduate courses

- Operator Algebra, Univ Rome, 2014
- Functional Analysis, Univ Rome 2006, 2010, 2011
- Functional Analysis, Univ Rome 2005
- Free Probabilty, Graduate School Institute of Mathematics Romanian Academy (Şcoala Normala Superioara) Bucharest, Spring, 2010
- Graduate students seminar (meeting once weekly) on von Neumann Algebras (2002-2004).
- Functional Analysis 22M313, Fall 2002
- Real Analysis, 22M211, Fall 2001.
- Topics in Analysis, 22M303, Fall 1998.
- Functional Analysis, 22M313, Fall 1997.
- Topics in Functional Analysis, Spring 1998.
- Free Probability and Subfactors (4 1-hour lectures), Berkeley, Fall 1992, Functional Analysis Seminar.
- The Atiyah Singer Index Theorem, University of Bucharest, Romania, Spring 1990. (7 wks, 4 hs/wk, aprox 10 students.)
- Subnormal Operators, University of Timişoara, Spring, 1988.
- Spectral Properties of Operators in Banach spaces, University of Bucharest, 1984-1989, (discussion session, 10 students).
- Operator Algebras, University of Bucharest, Fall 1985, Fall 1986. (discussion session, 10 students).
- Advanced course on the Atiyah-Singer Index Theorem, for researchers and advanced students at the Institute of Mathematics of the Romanian Academy, Spring 1988.
- Advanced course on Connes's Cyclic Cohomology, for researchers and advanced students at the Institute of Mathematics of the Romanian Academy, Spring 1989.

MEMBERSHIPS

• Romanian Mathematical Society, since 2012.