Ugo Pietro Gianazza

Curriculum and List of Publications

Pavia, Italy
June 2017

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Personal Data of Ugo Pietro Gianazza

Date of birth: November 6^{th} 1963

Place of birth: Milan, Italy

Marital status: Married with Monica Ghielmetti

Nationality: Italian and Swiss

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Languages known	Italian	mother tongue
	English	very good knowledge, both spoken and written
	German	good knowledge, both spoken and written

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Curriculum Vitae et Studiorum, November 2001–June 2017

Vita

- **Present Position:** Full Professor of Mathematical Analysis at the Department of Mathematics of the University of Pavia since November 1^{st} 2001.
- Chair of the Department of Mathematics "Felice Casorati" since November 1^{st} 2013.
- **Past Positions:**
  - Associate Professor of Mathematical Analysis at the School of Engineering of the University of Pavia, 1998–2001.
  - Assistant Professor of Mathematical Analysis at the Faculty of Science of the University of Pavia, 1992–98.
  - Lecturer in Mathematical Analysis at the School of Engineering of the University of Pavia, 1995–98.
  - Lecturer in Mathematical Analysis at the School of Engineering of the Politecnico of Milan, 1988–92.
- **Studies:** MSc in Nuclear Engineering at the Politecnico of Milan, 1982 - 88; thesis work: "Study of the helicoidal equilibrium of a plasma as extremum of a variational functional", advisors Marco Biroli and Ettore Minardi.

Teaching Activity at Undergraduate Level

If not otherwise stated, all the courses were taught at the University of Pavia.

- AY 2001–02
  - Course "Mathematical Methods" (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.

  - Course “Mathematical Analysis B” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
- AY 2002–03
  - Course “Mathematical Methods” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course “Mathematical Analysis A” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course “Complex Variable and Fourier Transform” (First Level Degree in Mathematics) at the Faculty of Science.
  - I advised two First Level Degree theses, one in Mathematics and one in Information Engineering.
- AY 2003–04
  - Course “Mathematical Methods” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course “Mathematical Models and Methods I” (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.
  - Course “Complex Variable and Fourier Transform” (First Level Degree in Mathematics) at the Faculty of Science.
  - I advised three First Level Degree theses, two in Mathematics and one in Electronic Engineering.
- AY 2004–05
  - Course “Mathematical Methods” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course “Mathematical Models and Methods I” (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.
  - Course “Complex Variable and Fourier Transform” (First Level Degree in Mathematics) at the Faculty of Science.
  - I advised five First Level Degree theses, four in Mathematics and one in Electronic Engineering. I also advised a Second Level Degree thesis in Mathematics (Title: *Motion of a Fluid in a Porous Medium: Modeling and Analytical Aspects*).
- AY 2005–2006
  - Course “Mathematical Methods” (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course “Mathematical Models and Methods I” (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.

  - Course "Complex Variable and Fourier Transform" (First Level Degree in Mathematics) at the Faculty of Science.
  - I advised one First Level Degree thesis in Mathematics. I also advised two Second Level Degree theses in Mathematics (Titles: *Propagation Models of Viruses in Information Networks* and *Harnack Inequalities for Doubly Nonlinear Equations*).
- AY 2006–2007
  - Course "Mathematical Methods" (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course "Mathematical Models and Methods I" (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.
  - Course "Complex Variable and Fourier Transform" (First Level Degree in Mathematics) at the Faculty of Science.
  - I advised six First Level Degree theses, one in Electronic Engineering, five in Mathematics. I also advised one Second Level Degree thesis in Mathematics (Title: *Some Results on the Regularity of the Infinity Laplacian Equation*), and co–advised two Second Level Degree theses in Engineering (Titles: *Analysis of Guided Beam Antennas with Optical Physics Methods* and *Regularized Kernel Methods*).
- AY 2007–2008
  - Course "Mathematical Methods" (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course "Mathematical Models and Methods I" (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.
  - I advised two First Level Degree theses in Engineering. I also advised two Second Level Degree theses in Mathematics (Titles: *Partial Differential Equations and Deterministic Games* and *The LANS–α Model and Turbulence in the Motion of Fluids*).
- AY 2008–2009
  - Course "Mathematical Methods" (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course "Mathematical Models and Methods I" (Second Level Degree in Electronic and Telecommunication Engineering) at the School of Engineering.
  - I advised two First Level Degree theses, one in Electronic Engineering and one in Mathematics. I also advised one Second Level Degree thesis in Mathematics (Title: *Random Games and Partial Differential Equation*).
- AY 2009–2010

  - On Sabbatical Leave; Visiting Research Scholar at Vanderbilt University (USA) from September 30 to December 16 2009, and from February 7 to April 12 2010.
- AY 2010–2011
  - Course "Mathematical Methods" (First Level Degree in Biomedical, Electrical, Electronic, Telecommunication and Information Engineering) at the School of Engineering.
  - Course "Complements of Mathematical Analysis" (Second Level Degree in Civil Engineering) at the School of Engineering.
  - I advised one Second Level Degree thesis in Mathematics (Title: *Regularity of solutions to Navier–Stokes equations*).
  - During the month of October 2010 I taught a 12-hour Course on "Mathematics for Economics" at the University Institute *Sophia* of Incisa in Val d'Arno, Italy.
- AY 2011–2012
  - Course "Mathematical Methods" (First Level Degree in Mechatronics Engineering) at the Mantova Campus of the School of Engineering.
  - Course "Complements of Mathematical Analysis" (Second Level Degree in Civil Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Building Engineering and Architecture) at the School of Engineering.
  - I advised one First Level Degree thesis in Mechanical Engineering.
- AY 2012–2013
  - Course "Complements of Mathematical Analysis" (Second Level Degree in Civil Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Building Engineering and Architecture) at the School of Engineering.
- AY 2013–2014
  - Course "Complements of Mathematical Analysis" (Second Level Degree in Civil Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Building Engineering and Architecture) at the School of Engineering.
  - Course "Functional Analysis and Differential Equations" (Second Level Degree in Mathematics).
- AY 2014–2015
  - Course "Advanced Mathematical Methods for Engineers" (Second Level Degree in Electronic Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Building Engineering and Architecture) at the School of Engineering.
- AY 2015–2016
  - Course "Advanced Mathematical Methods for Engineers" (Second Level Degree in Electronic Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Building Engineering and Architecture) at the School of Engineering.

  - Course "Mathematical Analysis II" (Degree in Civil Engineering) at the School of Engineering.
- AY 2016–2017
  - Course "Mathematical Analysis II" (Degree in Bioengineering, Electronic and Information Engineering) at the School of Engineering.
  - Course "Mathematical Analysis I" (Degree in Civil Engineering) at the School of Engineering.
  - Course "Mathematical Analysis II" (Degree in Civil Engineering) at the School of Engineering.

Teaching Activity at Graduate Level

- AY 2001–02: Course "Regularity Results for Elliptic Equations" for the Ph.D. Program in Mathematics and Statistics in Pavia.
- AY 2002–03: Course "Regularity Results for Parabolic Equations" for the Ph.D. Program in Mathematics and Statistics in Pavia.
- AY 2003–04: Part of the course "Classical Computational Methods" for the Master Program *Complexity and its interdisciplinary Applications* of the Istituto Universitario di Studi Superiori of Pavia.
- June 2007: In the framework of the *2007 Workshop/Summer School in Saariselkä on Qualitative Properties of Solutions to Elliptic and Parabolic Equations* (Saariselkä, Finland, June 6-10, 2007) a four–hour–mini-course on "Harnack Inequalities for Non-negative Solutions to Degenerate and Singular Parabolic Partial Differential Equations."
- August 2012: In the framework of the *22^{nd} Summer School* in Jyväskylä, Finland, a ten–hour–course on "Regularity for Singular Porous Medium Equations."
- March 2015: In the framework of the School/Workshop *Phase Transition Problems and Nonlinear PDEs* (Bologna, Italy, March 9-11, 2015) a three–hour–course on "Boundary regularity for degenerate and singular parabolic equations."
- August 2016: In the framework of the *Scuola Matematica Interuniversitaria* (Perugia, Italy, August 1-September 2, 2016) I taught a course on "Introduction to Partial Differential Equations." It consisted in 10 hours of lectures, and 6 hours of problem-solving.

Ph.D. Students

- From November 2003 to September 2005 I advised Oscar Salas Huertas, a student of the Ph.D. Program in Mathematics and Statistics in Pavia, who at the time was studying analytical and computational problems connected to the dam problem. Then Huertas changed research subject, and finished his Ph.D. work with another advisor.

- Maria Sosio: Ph.D. in Mathematics and Statistics, University of Pavia. Title of the dissertation: *Regularity for Transport and Nonlinear Diffusion Problems*. Defense on June 1^{st} 2011
- Andrea Fugazzola: Ph.D. in Mathematics and Statistics, University of Pavia. Title of the dissertation: *Higher integrability results for singular and degenerate parabolic equations*. Defense on December 16^{th} 2011.
- Simona Puglisi: Ph.D. in Mathematics, University of Catania. Title: *Regularity results for some elliptic and parabolic problems*. Defense on February 27^{th} 2012.

Activity in Selection Committees

- In 2002 I was a member of the Admission Committee for the Ph.D. Program in Mathematics and Statistics in Pavia.
- In April–July 2010 I was member of the selection committee for a position of associate professor of Mathematical Analysis at the School of Statistics of the University of Messina, Italy.
- In 2010 I chaired the Admission Committee for the Ph.D. Program in Mathematics and Statistics in Pavia.
- On December 17^{th} 2010 I was member of the habilitation committee for a position of professor of Mathematics at the Institute of Mathematics of the Martin Luther University, Halle-Wittenberg, Germany.
- In August 2011–January 2012 I was member of the Selection Committee for a position of Assistant Professor in Mathematical Analysis at the Faculty of Sciences of the University of Como.
- In April–June 2015 I was member of the Selection Committee for a position of Senior Assistant Professor (RTD-b) in Mathematical Analysis at the Department of Mathematics of the Polytechnics of Milan.
- In November 2016–February 2017 I was member of the Selection Committee for a position of Senior Assistant Professor (RTD-b) in Mathematical Analysis at the Department of Basic and Applied Sciences for Engineering at Sapienza University of Rome.

Academic Organizational Activity

- From February 2000 to August 2013 I represented the School of Engineering of the University of Pavia in the Italian National Committee which is in charge of preparing the admission test for prospective students of the Italian Schools of Engineering.
- I represent the Department of Mathematics in the Steering Committee of CIRSIS, research center of the University of Pavia on Higher Education Systems.

- From September 2001 to August 2013 I chaired the Admission Committee of the School of Engineering of the University of Pavia.
- From November 1^{st} 2010 to October 31^{st} 2013 I was vice–chair of the Department of Mathematics "Felice Casorati" of the University of Pavia.
- From December 13^{th} 2010 to March 31^{st} 2013 I was President of the Scientific Committee of the Library of Science and Technique of the University of Pavia.
- From February 11^{th} to May 31^{st} 2013 I was Director of the five-year undergraduate program in Architecture at the School of Engineering of the University of Pavia.
- From September 20^{th} 2013 to September $3o^{th}$ I represented the Second Scientific Library Committee (CSB2) in the University Library Committee of the University of Pavia.
- Since November 1^{st} 2013 I have been the Chair of the Department of Mathematics of the University of Pavia.
- Since November 15^{th} 2013 I have been Coordinator of the Conference of the Chairs of the University of Pavia.

Scientific Organizational Activity

- 2005
  - I was part of the Organizing Committee of the *Fourth Colloquium Politecnico of Milan - University of Pavia: Partial Differential Equations and Calculus of Variations*, which took place in Milan on March 9^{th}.
  - With J. M. Urbano (University of Coimbra) and V. Vespri (University of Florence) I organized the *Workshop on Harnack Inequalities and Positivity for Solutions of PDEs*, sponsored by the Italian INdAM, which was held in Cortona from June 12^{th} to June 18^{th}.
- 2006
  - With E. DiBenedetto (Vanderbilt University), M. Safonov (University of Minnesota), J.M. Urbano (University of Coimbra), V. Vespri (University of Florence), I was Guest Editor of a 2006 Special Issue of the journal "Boundary Value Problems" on *Harnack Estimates, Positivity and Local Behavior of Degenerate and Singular Parabolic Equations* (see [1] in third section of the complete list of publications).
- 2007
  - With P. Colli (University of Pavia), M. Grasselli (Politecnico of Milan) and V. Pata (Politecnico of Milan) I was part of the Organizing Committee of the *Sixth Colloquium Politecnico of Milan - University of Pavia: Partial Differential Equations and Calculus of Variations*, which took place in Milan on October 18^{th}.
- 2008
  - With V. Vespri (University of Florence) and U. Abdulla (Florida Institute of Technology) I organized a Session on "Degenerate and Singular

Parabolic Problems/Potential Theory and Wiener Type Criteria" during the Fifth World Congress of Nonlinear Analysts, which was held in Orlando from July 2^{nd} to July 9^{th}.
  - With G. Gilardi (University of Pavia), M. Grasselli (Politecnico of Milan) and F. Tomarelli (Politecnico of Milan) I was part of the Organizing Committee of the *Seventh Colloquium Politecnico of Milan - University of Pavia: Partial Differential Equations and Calculus of Variations*, which took place in Pavia on November 28^{th}.
- 2009
  - With J. Lewis (University of Kentucky) I organized a CIME Summer Course on "Regularity estimates for nonlinear elliptic and parabolic problems", which took place in Cetraro (Cosenza, Italy), from June 21^{st} to June 27^{th}. The proceedings appeared in 2012 in the Springer Lecture Notes in Mathematics Series (see [2] in third section of the complete list of publications).
  - With V. Vespri (University of Florence) and S. Salsa (Politecnico di Milano) I organized an INdAM intensive period on "Geometric properties of nonlinear local and nonlocal problems", which took place in Milan and Pavia, from May 1^{st} to June 20^{th}.
- 2012
  - With E. DiBenedetto (Vanderbilt University) I organized a minisymposium on "Degenerate and Singular Elliptic and Parabolic Equations" during the 36^{th} Annual SIAM Southeastern Atlantic Section Conference, which was held in Huntsville, Alabama from March 24^{th} to March 25^{th}.
  - With F. Brezzi (IUSS Pavia), P. Colli Franzone (University of Pavia), G. Gilardi (University of Pavia), I was Editor of the Proceedings of the Conference "Analysis and Numerics of Partial Differential Equations" held in Pavia at the beginning of November 2011 in memory of Enrico Magenes. The proceedings appeared in 2013 in the Springer INdAM Series (see [3] in third section of the complete list of publications).
- 2013
  - With P. Colli (University of Pavia), M. Grasselli (Politecnico of Milan) and V. Pata (Politecnico of Milan) I was part of the Organizing Committee of the *Ninth Colloquium University of Pavia - Politecnico of Milan: Partial Differential Equations and Calculus of Variations*, which took place in Pavia on May 23^{rd}.
- 2014
  - With F. Duzaar (University of Erlangen-Nürnberg) I organized an *INdAM Meeting on Degenerate and Singular Parabolic Problems*, held in Cortona, Italy, in June 2014.

Editorial Activity

- Since April 20^{th} 2014 I have been Editor in Chief of the *Central European Journal of Mathematics*, now *Open Mathematics*.
- Since November 2015 I have been Editor of *Advances in Calculus of Variations*.

Past and Present Funding

2005 "Harnack Inequalities and Positivity for Solutions of PDEs", Italian INdAM Workshop. The amount of money at the organizers' disposal (José Miguel Urbano, Vincenzo Vespri and myself) was EUR 15,000.00.

2006 "Structural Properties of Diffusion Phenomena", Italian GNAMPA Project, EUR 4,500.00, running from 01/01/06 to 28/02/07.

2008 "Parabolic Equations: Regularity Results and Applications to Free Boundary Problems", Italian GNAMPA Project, EUR 2,500.00, running from 01/01/08 to 28/02/09.

2009 "Regularity Estimates for Nonlinear Elliptic and Parabolic Problems", Italian CIME Summer School hold in Cetraro (Italy). The CIME Foundation approved the proposal and granted funding in November 2006. The amount of money at the organizers' disposal (John Lewis and myself) was EUR 24,000.00.

2009 INdAM Intensive Period "Geometric properties of nonlinear local and nonlocal problems". The amount of money at the organizers' disposal (Sandro Salsa, Vincenzo Vespri and myself) was EUR 40,000.00.

2009–2010 With J.M. Urbano (Universidade de Coimbra, Portugal) I was coordinator of a two–year bilateral Research Programme FCT–CNR. The grant covered two trips from Italy to Portugal, and two trips from Portugal to Italy.

2009–2012 With the collaboration of Elena Bonetti and Fulvio Bisi, I set up the Laboratory of Applied Mathematics (LAMA) at the Mantova Campus of the School of Engineering of the University of Pavia, thanks to a grant of approximately 40,000.00 EUR from the Foundation "University of Mantova". With a large part of the grant we could pay a two-year non-tenure track position of assistant professor at the Mantova Campus. In 2011 LAMA started a collaboration with Polimeri Europa (the ENI polymers division) for the modeling of industrial processes. Due to a sudden and unexpected closure of the Mantova Campus of the School of Engineering of the University of Pavia, LAMA was closed at the end of 2012.

2011–2013 Italian Ministry of Education, University and Research 2009 PRIN Project "Geometric Properties of Nonlinear Diffusion Problems". I was scientific coordinator of a three-investigator research team. The amount of money at disposal of the group was EUR 6,309.00.

2014 "Singular and Degenerate Evolution Problems," Italian INdAM Meeting. The amount of money at the organizers' disposal (Frank Duzaar and myself) was EUR 15,000.00.

Recent Invited Talks at Conferences and Scientific Meetings

- 2006
  - Meeting on Subelliptic PDE's and Applications to Geometry and Finance (Cortona, Italy, June 12-17); "Harnack estimates for quasilinear degenerate parabolic differential equations."
  - Mathematics and its applications, a joint SIMAI–SMAI–SMF–UMI meeting (Turin, Italy, July 3-7); "Intrinsic Harnack estimates for degenerate parabolic differential equations."
  - Minisymposium on Recent Development in the Theory of Nonlinear Degenerate Elliptic and Parabolic Equations with Applications - SIAM Conference on Analysis of Partial Differential Equations (Boston, USA, July 10-12); "Continuity of solutions of nonlinear filtration equations."
- 2007
  - Shanks Workshop on Nonlinear Partial Differential Equations and Applications (Vanderbilt University, Nashville, USA, March 17-18); "Harnack estimates for quasilinear parabolic equations."
  - Minisymposium on Recent Development in Nonlinear Degenerate Elliptic and Parabolic Equations, Potential Theory and Applications - SIAM Conference on Analysis of Partial Differential Equations (Mesa, USA, December 10-12); "Continuity of the Saturation in the Flow of Two Immiscible Fluids Through a Porous Medium."
- 2008
  - Session on Degenerate and Singular Parabolic Equations/Potential Theory and Wiener Type Criteria - Fifth World Congress of Nonlinear Analysts (Orlando, USA, July 2-9); "The Harnack Inequality for Solutions to Nonlinear Singular Parabolic Equations."
  - The London Mathematical Society South West and South Wales Regional Meeting 2008 and subsequent Workshop on Calculus of Variations and Nonlinear PDEs (Swansea University, UK, September 15-17); "Harnack inequalities for degenerate and singular parabolic equations."
- 2009
  - Nonlinear problems for p–Laplace and Laplace (Linköping, Sweden, August 10-14); "Continuity of the Saturation in the Flow of Two Immiscible Fluids Through a Porous Medium."
  - Regularity for non-linear pdes (Pisa, Italy, September 21-25); "Continuity of the Saturation in the Flow of Two Immiscible Fluids in a Porous Medium."

  - Prairie Analysis Seminar (Kansas State University, Manhattan, KS, USA, October 2-3); "Continuity of the Saturation in the Flow of Two Immiscible Fluids Through a Porous Medium."
- 2010
  - Mathematical Modelling of Materials and Processes. First Joint Workshop Centro Ricerche Polimeri Europa - Gruppo ENI (Mantova Site) Laboratorio di Matematica Applicata - Fondazione Università di Mantova (School of Engineering, University of Pavia, Mantova, Italy, April 22-23); "Non-newtonian fluids and related structural properties."
  - Nonlinear Evolution Equations (Mondello, Italy, June 8–11); "A new regularity approach for weak solutions to singular parabolic equations."
  - Nonlinear partial differential equations - 2010 (Dnipropetrovsk, Ukraine, September 6-11); "Boundary Estimates for Quasilinear Parabolic Equations."
  - Viscosity, metric, and control theoretic methods for nonlinear partial differential equations (Padova, Italy, September 23-24); "Boundary Estimates for Quasilinear Parabolic Equations".
  - Eighth Colloquium Politecnico di Milano - Università di Pavia on Partial Differential Equations and Calculus of Variations (Milan, Italy, December 15); "Boundary Estimates for Quasilinear Parabolic Equations."
- 2011
  - IV Pini Memorial (Bologna, Italy, November 25); "On the Local Behavior of Non-Negative Solutions to a Logarithmically Singular Equation."
- 2012
  - 2012 SIAM Southeast Atlantic Section Conference (Huntsville, AL, USA, March 24–25); "Logarithmically Singular Parabolic Equations as Limits of the Porous Medium Equation."
  - 7^{th} European Conference on Elliptic and Parabolic Problems (Gaeta, Italy, May 21–25); "On the local behavior of solutions of logarithmically singular parabolic equations."
  - Workshop on "Recent Trends in Nonlinear Diffusion" (Centro DeGiorgi, Pisa, Italy, July 1–6); "On the Local Behavior of Solutions to Logarithmically Singular Parabolic Equations."
  - Workshop on "Calculus of Variations and Partial Differential Equations" (Erlangen, Germany, November 9); "Boundary Estimates for Certain Degenerate and Singular Parabolic Equations."
  - Workshop on "New trends in Nonlinear Parabolic Equations" (Parma, Italy, November 12–16); "Boundary Estimates for Certain Degenerate and Singular Parabolic Equations."
- 2013
  - Minisymposium on Dynamics of Non-linear Flows in Porous Media: Analysis and Applications - 2013 SIAM Conference on Mathematical and Computational Issues in the Geosciences (Padova, Italy, June 17–

20); "On the regularity of Non-Negative Solutions to a Logarithmically Singular Equation."
  - Workshop on "Nonlinear Elliptic and Parabolic Partial Differential Equations" (Milan, Italy, June 19–21); "Boundary regularity for degenerate and singular parabolic equations."
  - Wokshop on "Elliptic and Parabolic Equations" (Hannover, Germany, September 10–12); "Porous medium type equations with measure data and potential estimates."
  - Invited visitor at the Mittag-Leffler Institute for the Semester on "Evolution Problems" (Stockholm, Sweden, October 1–November 15 2013); "Analyticity of solutions to a singular diffusion equation" on October 10^{th}.
- 2015
  - Meeting "Incontro con Marco Biroli" (Milan, Italy, May 9); "Un criterio di tipo Wiener per la continuità al bordo di Quasi-Minimi."
  - Conference on "PDEs, Potential Theory and Function Spaces in honour of Lars Inge Hedberg (1935-2005)" (Linköping, Sweden, June 14–18); "A Necessary and Sufficient Condition for the Continuity of Local Minima of Parabolic Variational Integrals with Linear Growth."
- 2016
  - Workshop on "The Total Variation Flow and Related Nonlinear Evolution Problems" (Salzburg, Austria, July 11–15); "A self-improving property of degenerate parabolic equations of porous medium-type."

Recent Invited Talks at Mathematics Departments

- A Harnack estimate for a degenerate parabolic equation - University of Bristol, November 22^{nd}, 2005.
- The Wasserstein Gradient Flow of the Fisher Information and the Quantum Drift–Diffusion Equation - Vanderbilt University, Nashville, USA, September 21^{st}, 2007.
- Concentration of positivity and Harnack inequality - University of Florence, Italy, February 1^{st}, 2008.
- A new regularity approach for weak solutions of degenerate parabolic equations - Vanderbilt University, Nashville, USA, October 30^{th}, 2009.
- A new regularity approach for weak solutions of degenerate parabolic equations - University of Kentucky, Lexington, USA, November 17^{th}, 2009.
- A new regularity approach for weak solutions to singular parabolic equations - University of Catania, Italy, June 30^{th}, 2010.
- The Logarithmic Diffusion Equation and its Connections with the Singular Porous Medium Equation - Kolloquium Angewandte Mathematik, Universität Erlangen–Nürnberg, Erlangen, Germany, May 16^{th}, 2013.
- Porous Medium Equation and Potential Estimates - The Mathematical Colloquium, Linköping University, Linköping, Sweden, October 23^{rd}, 2013.

- Boundary Regularity for Degenerate and Singular Parabolic Equations - Vanderbilt University, USA, February 20^{th}, 2015.
- The Expansion of Positivity: Old and New - The Mathematical Colloquium, Linköping University, Linköping, Sweden, September 9^{th}, 2015.
- The Continuity Issue for the Parabolic p-Laplacian: Old and New Results, Chongqing University, Chongqing, China, March 16^{th}, 2017.