

# Curriculum Vitae et Studiorum

## Personal Data:

Name : Tommaso Leonori  
Date and place of birth : 28/5/1979, Rome  
Address : Dipartimento di Scienze di Base e Applicate per l'Ingegneria  
Universit di Roma "Sapienza"  
Via Antonio Scarpa 10, 00161 Roma  
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## Education and positions

- 12 November 2002: *Degree in Mathematics* University of Rome "La Sapienza".  
Title of thesis: *Equazioni ellittiche con termine di ordine inferiore a crescita naturale nel gradiente e dati misura*. Advisor: Prof. L. Orsina.
- November 2002: Doctoral fellow in *Pure mathematics*, (XVIII Ciclo) University of Rome "Tor Vergata", Rome.
- 3 March 2006: *Ph.D. in Mathematics*, University of Rome "Tor Vergata".  
Title of thesis: *Large Solutions for a class of Nonlinear Elliptic Equation with Gradient Terms*. Advisor: Prof. A.Porretta.  
Committee: G.Tarantello (Rome), J.P. Puel (Versailles), F.Murat (Paris).
- December 2005-September 2007: Post-doc position, Department of Mathematics "G. Castelnuovo", University of Rome "La Sapienza".
- October 2007-December 2008: Post-doc at CMUC, University of Coimbra (Portugal).
- January 2009- December 2011: Postdoc "Juan de la Cierva", University of Granada (Spain).
- January 2012- Julio 2014: "Profesor Ayudante Doctor" at University Carlos III, Madrid (Spain).
- Julio 2014- March 2017: "Programa de proyectos de investigación para la incorporación de jóvenes doctores a nuevas líneas de investigación en grupos de la Universidad de Granada" University of Granada (Spain).
- March 2017- Now: Ricercatore a tempo determinato-B, Università di Roma "Sapienza".

## Qualifications

- May 2011: Qualification for the position of "Profesor Contratado Doctor", "Professor Ayudante Doctor" and "Professor de Universidad Privada" (ANECA-SPAIN).
- June 2013: Qualification for the position of "Profesor Titular" (ANECA-SPAIN).
- December 2013 and March 2018: Qualification for the position of "Professore Associato" (ANVUR-ITALY).

## Publications

### Articles

1. J. Carmona, E. Colorado, T. Leonori, A. Ortega, *Regularity of solutions to a fractional elliptic problem with mixed Dirichlet-Neumann boundary data*. To appear in Adv. in Calculus of Variations.
2. T. Leonori, A. Molino, S. Segura de León, *Parabolic equations with natural growth approximated by nonlocal equations*, To appear in Comm. Cont. Math.
3. T. Leonori, M. Magliocca, *Comparison results for unbounded solutions for a parabolic Cauchy-Dirichlet problem with superlinear gradient growth*, to appear in Communications in Pure and Applied Analysis.
4. J. Carmona, T. Leonori, S. López-Martínez, P. Martínez-Aparicio, *Quasilinear elliptic problems with singular and homogeneous lower order terms*, Nonlinear Analysis, **179** (2019) 105–130.
5. T. Leonori, M. Medina, I. Peral, A. Primo, F. Soria, *Principal Eigenvalue of Mixed Problem for the Fractional Laplacian: Moving the Boundary Conditions*, Journal of Differential Equations 265 (2018), 593–619
6. T. Leonori, A. Porretta *On the comparison principle for unbounded solutions of elliptic equations with first order terms*, Journal of Mathematical Analysis and Applications 457 (2018), 1492–1501.
7. L. Carmona, T. Leonori, *A uniqueness result for a singular elliptic equation with gradient term*, to appear in Proceedings of the Royal Society of Edinburgh Section A: Mathematics.  
<https://doi.org/10.1017/S0308210518000112>
8. T. Leonori, A. Porretta, G. Riey *Comparison principles for  $p$ -Laplace equations with lower order terms*, Annali di Matematica Pura e Applicata, 196 (2017) 877–903.
9. T. Leonori A. Porretta *Large solutions and gradient bounds for quasilinear elliptic equations*, Comm. Part. Diff. Eq. **41** (2016) 952–998.
10. T. Leonori, Peral, Ana Primo, F. Soria *Basic estimates for solution of elliptic and parabolic equations for a class of nonlocal operators*, Discrete and Continuous Dynamical Systems, **35** (2015) 6031–6068
11. S. Calogero, T. Leonori, *Ground states of self-gravitating elastic bodies*, Calc. Var. **54** (2015) 881–899

12. D. Arcoya, T. Leonori, A. Primo, *Existence of solutions for semilinear nonlocal elliptic problems via a Bolzano Theorem*, Acta Applicandae Mathematicae, **127** (2013) 87–104
13. D. Arcoya, L. Boccardo, T. Leonori,  $W_0^{1,1}$ -solutions for nonlinear elliptic problems with gradient terms, Nodda **20** (2013) 1741–1757
14. D. Arcoya, E. Colorado, T. Leonori, *Asymptotically linear problems and antimaximum principle for the square root of the laplacian*, Adv. Nonlin. Stud. **12** (2012), 683–701
15. T. Leonori, A. Porretta, *Gradient bounds for elliptic problems singular at the boundary*, Arch. Rational Mech. Anal. **202** (2011) 663–705
16. T. Leonori, P. Martínez, A. Primo *Nonlinear Elliptic equations with Hardy potential and lower order term with natural growth* Nonlinear Analysis: Theory, Methods & Applications, **74**(2011) 3556–3569.
17. T. Leonori, F. Petitta *Local estimates for parabolic equations with nonlinear gradient terms*, Calc.Var. **42** (2011) 153–187.
18. L. Boccardo, T. Leonori, L. Orsina, F. Petitta, *Quasilinear elliptic equations with singular quadratic growth terms*, Comm. Cont. Math, **13** (2011) 607–642.
19. D. Arcoya, L. Boccardo, T. Leonori, A. Porretta, *Some elliptic problems with singular natural growth lower order terms*, J.Diff.Eq., **249**, (2010) 2771–2795
20. I.N. Figueiredo, C. Leal, T. Leonori, G. Romanazzi, P. N. Figueiredo, and M. M. Donato, *A coupled convection-diffusion level set model for tracking epithelial cells in colonic crypts*, International Conference on Computational Science, ICCS 2010, 1 (2010) 961–969
21. L. Boccardo, T. Leonori, *Local property of solutions of elliptic equations depending on local property of data*, Methods and Applications of Analysis, **15** (2009) 53–64.
22. D. Arcoya, J. Carmona, T. Leonori, P. J. Martínez, L. Orsina, F. Petitta, *Existence and nonexistence of solutions for singular quadratic quasilinear equations*, J. Diff. Eq., **246** (2009) 4006–4042.
23. T. Leonori, A. Porretta *The boundary behaviour of blow-up solutions related to a state constraint problem*, SIAM Math. Anal. **39** (2008), 1295–1327.
24. T. Leonori, F. Petitta *Existence and regularity results for some singular elliptic problem*, Adv. Nonlin. Stud. **7**(2007), 329–344.
25. T. Leonori *Large solutions for a class of nonlinear elliptic equations with gradient terms*, Adv. Nonlin. Stud. **7**(2007), 237–269.
26. T. Leonori *Bounded solutions for some Dirichlet problems with  $L^1(\Omega)$  data*, Boll. U.M.I., sez. B, **4** (2007) 785–796.

27. T. Leonori, F. Petitta *Asymptotic behavior of solutions for parabolic equations with natural growth term and irregular data*, *Asymptotic Analysis* **48**(3) (2006), 219–233.

## Preprints

1. J. Carmona, E. Colorado, T. Leonori, A. Ortega, *Semilinear fractional elliptic problems with mixed Dirichlet-Neumann boundary conditions*. Preprint, arXiv:1902.08925v1.
2. S. Buccheri, T. Leonori *Large solution for an equation involving the  $p$ -Laplacian with  $p$  diverging*, Preprint.

## Other publications

1. T. Leonori, A. Porretta, *Lipschitz solutions of elliptic problems with singularity at the boundary and applications*, Proceedings XXII Congreso de Ecuaciones Diferenciales y Aplicaciones, XII Congreso de Matematica Aplicada, Universidad de Les Illes Balears, Palma de Mallorca, (September 59, 2011), (Actas Electronicas). ISBN: 978-84-694-4935-6
2. T. Leonori, A. Porretta, *Gradient Bounds for Elliptic Problems Singular at the Boundary and Application to a Stochastic Control Problem with State Constraint*, Proceedings of the ICM 2010, Hyderabad, India. ISBN: 978-981-4324-30-4 (hardcover)
3. T. Leonori *Large solutions for a class of nonlinear elliptic equations with gradient terms*, Ph.D. Thesis (2006) at University of Roma “Tor Vergata”. Advisor: Prof A. Porretta
4. T. Leonori *Equazioni ellittiche con termini di ordine inferiore a crescita naturale nel gradiente e dati misura*, Degree Thesis at University of Roma “La Sapienza” (2002). Advisor: Prof. L. Orsina.

## Books

1. Ejercicios del curso “Ecuaciones en Derivadas Parciales”. ISBN 978-84-686-2795-3  
<http://www.bubok.es/libros/219821/Ejercicios-del-curso-Ecuaciones-en-derivadas-parciales>

## Seminars

1. *Principal Eigenvalue of Mixed Problem for the Fractional Laplacian*, "Second Days Of Nonlinear Elliptic Pde" In Hauts-De-France, Université Du Littoral Cote D'opale, Calais, June 24–27 2019
2. *Large solution for an equation involving the  $p$ -Laplacian with  $p$  diverging*, "II IMDE: Conference Amazon-Andalusia on PDEs" in Belém, Brazil, from 10 to 13 June, 2019.
3. *Large solution for an equation involving the  $p$ -Laplacian with  $p$  diverging*, 16 Maggio 2019, Seminario P(n), "Sapienza" Università di Roma.
4. *Large solution for an equation involving the  $p$ -Laplacian with  $p$  diverging*, Seminario all' Univerdidad de La Laguna (Spagna).
5. 8 July 2017 *Comparison principle for quasilinear elliptic and parabolic equations*, The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Taipei (Taiwan)
6. 7 July 2017 *Principal Eigenvalue of Mixed Problem for the Fractional Laplacian*, The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications Taipei (Taiwan)
7. 28 June 2017, *Quasilinear elliptic equations with lower order terms*, First Days Of Nonlinear Elliptic PDE in Hauts-De-France, Valenciennes
8. 7 October 2016, *Basic estimates for solutions of a class of nonlocal elliptic and parabolic equations* Research Meeting On Non-Local Operators, Cagliari
9. 21 Abril 2016 *Alcuni risultati di esistenza per equazioni ellittiche quasilineari*, Università di Bologna.
10. 2 July 2015 *Ecuaciones elípticas casilineales con terminos de orden inferior*, Universitat de Valencia
11. 27 March 2015 *Quasilinear elliptic equations with lower order terms*, COPDE, Munich
12. 5 February 2015 *Quasilinear elliptic equations with lower order terms* , Congreso RSME 2015, Granada
13. 27 May 2014 *Gradient bounds and large solutions for some nonlinear elliptic equations*, 8th European Conference on Elliptic and Parabolic Problems, Gaeta
14. 8 May 2014 *Gradient bounds for quasilinear elliptic equations*, Università di Catania
15. 28 January 2014 *Gradient bounds for quasilinear elliptic equations*, Università di Padova
16. 14 March 2014 *Ligação entre problemas de controle e equações diferenciais em derivadas parciais*, Universidad Agostinho Neto, Luanda
17. 19 December 2013 *Some remarks on the theory of a class of nonlocal operators: elliptic and parabolic case*, Universidad Autonoma de Madrid.

18. 18 September 2013 *Gradient bounds and large solutions for quasilinear elliptic equations*, Congreso de jóvenes Investigadores, Sevilla.
19. 4 July 2013 *Gradient bounds and large solutions for some nonlinear elliptic equations*, Nonlinear Partial Differential Equations On the occasion of J. Mazón's 60th birthday. Burjassot,
20. 10 December 2012 *Ecuaciones elípticas singulares y aplicaciones a problemas de control*, Universidad Carlos III, Madrid.
21. 2 July 2012, *Problemas elípticos no lineales con términos de orden inferior singulares*, Universidad de Granada
22. 8 May 2012, *Lipschitz bounds for nonlinear elliptic equation with strong singularity at the boundary*, Universidad Carls III, Madrid.
23. 22 March 2012, *Some results about large solutions for nonlinear elliptic equations and their applications*, Universidad Carls III, Madrid.
24. 24 January 2012, *Lipschitz estimates for solutions of elliptic equations singular at the boundary*, Universidad de Granada.
25. 16 November 2011, *Lipschitz estimates for solutions of elliptic equations singular at the boundary*, UAM, Madrid
26. 13 September 2011, *Lipschitz estimates for solutions of elliptic equations singular at the boundary*, CIDAMA, Almería
27. 5 September 2011, *Lipschitz solutions of elliptic problems with singularity at the boundary and applications* CEDYA, Palma de Mallorca.
28. 30 March 2011, *Problemas elípticos no lineales con terminos de orden inferior singulares*, Universitat de Valencia
29. 25 August 2010 *Gradient Bounds for Elliptic Problems Singular at the Boundary and Application to a Stochastic Control Problem with State Constraint*, ICM 2010, Hyderabad, India
30. 7 July 2010, *Quasilinear singular equations*, Department of Mathematics, University of Coimbra.
31. 10 June 2010, *Gradient bounds for elliptic problems singular at the boundary and applications*, Università Bicocca, Milano
32. 18 May 2010, *Gradient bounds for elliptic problems singular at the boundary and application to a stochastic control problem with state constraint*, INdAM Workshop on vector-valued mappings and systems of PDE's, Rome
33. 4 April 2009, *Existence and nonexistence of solutions for singular quadratic quasilinear equations*, 2éme EPEDPNL'2009, Equations aux Drives Partielles Non Linaires, Ttouan, 31 March- 5 April 2009 .
34. 12 December 2008, *Existence and nonexistence of solutions for singular quadratic quasilinear equations*, CMUC- Department of Mathematics, University of Coimbra.

35. 20 November 2008, *Existence, regularity and applications to a stochastic control problem of some nonlinear elliptic equations* CMA-University of Oslo.
36. 19 June 2008, *The boundary behavior of blow-up solutions related to a stochastic control problem with state constraint*, Workshop on Elliptic and Parabolic Equations and Systems, Napoli.
37. 13 December 2007, *The boundary behavior of blow-up solutions related to a stochastic control problem with state constraint*, CIM Workshop on PDEs, Numerical Simulation and Applications, Coimbra (Portugal).
38. 12 October 2007, *Large solutions for a class of nonlinear elliptic equations with gradient terms*, CMUC- Department of Mathematics, University of Coimbra.
39. 18 September 2007, *Large solutions for a class of nonlinear elliptic equations with gradient terms*, Primer Encuentro de la Red de Ecuaciones Parabolicas y Elpticas No Lineales, San José, Spain.
40. 23 May 2007, *Comportamento asintotico per soluzioni esplosive legate ad un problema di controllo stocastico con vincoli di stato*, Department of Mathematics, University of Rome “Tor Vergata”.
41. 3 March 2006, *Large solutions for a class of nonlinear elliptic equations with gradient terms*, Department of Mathematics, University of Rome “Tor Vergata”.
42. 13 August 2004: *About some PDE with measure data*, Cortona 2004, il Palazzone, organizers: SMI–SNS di Pisa, UNESCO.

## Teaching Activity

### Graduate:

- *Analisi I* “Sapienza” Università di Roma, A. A. 2019–2020 (9 CFU)
- *Mathematica Methods in Chemical Engineering* “Sapienza” Università di Roma, A. A. 2019–2020 (6 CFU)
- *Introduzione alle Equazioni differenziali alle derivate parziali*, percorso d’eccellenza, “Sapienza” Università di Roma, A. A. 2019–2020 (1 CFU)
- *Analisi I* “Sapienza” Università di Roma, A. A. 2018–2019 (9 CFU)
- *Laboratorio di Matematica* “Sapienza” Università di Roma, A. A. 2018–2019 (3 CFU)
- *Introduzione alle Equazioni differenziali alle derivate parziali*, percorso d’eccellenza, “Sapienza” Università di Roma, A. A. 2018–2019 (1 CFU)
- *Analisi I* “Sapienza” Università di Roma, A. A. 2017–2018 (9 CFU)
- *Analisi II* “Sapienza” Università di Roma, A. A. 2016–2017 (6 CFU)
- *Cálculo I* Universidad de Granada, A. A. 2016–2017 (8 CFU)
- *Cálculo I* University of Granada, A. A. 2015–2016 (8 CFU)
- *Análise funcional* Universidade Agostinho Neto, Luanda, A. A. 2013–2014 (10 CFU)
- *Cálculo I* Universidad “Carlos III” de Madrid, A. A. 2013–2014 (16 CFU)
- *Cálculo I* Universidad “Carlos III” de Madrid, A. A. 2012–2013 (16 CFU)
- “*Cálculo Avanzado*”, Universidad de Granada, A. A. 2011–2012 (4,5 CFU)
- “*Cálculo Avanzado*”, Universidad de Granada, A. A. 2010–2011 (3 CFU)
- “*Fundamentos de Matematica I*”, Universidad de Granada, A. A. 2010–2011 (1,5 CFU)
- “*Ecuaciones en Derivadas Parciales*”, Universidad de Granada, A. A. 2009–2010 (2 CFU)
- *Analisi II* (Facoltà di Architettura, Università “Roma 3”, A. A. 2006–2007). (3 CFU)
- *Analisi I* “Sapienza”, Università di Roma A. A. 2006–2007. (10 CFU)

### Postgraduate:

- “*Ecuaciones en Derivadas Parciales*”, Master en Caminos, Universidad de Granada, A. A. 2016–2017 (4,5 CFU)
- “*Ecuaciones en Derivadas Parciales*”, Master en Caminos, Universidad de Granada, A. A. 2015–2016 (4,5 CFU)



- "*Ecuaciones en Derivadas Parciales*", Master en Caminos, Universidad de Granada, A. A. 2014–2015 (4,5 CFU)
- "*Ecuaciones elpticas no lineales con trminos gradiente*", PhD Program Fisymat, Universidad de Granada, A. A. 2011–2012 (2 CFU)
- "*Analisis no lineal*", PhD Program Fisymat, Universidad de Granada, A. A. 2009–2010 (2 CFU)
- "*Analisis no lineal*", PhD Program Fisymat, Universidad de Granada, A. A. 2010–2011 (2 CFU)

## Visits

1. May 2006: Visitor at Department of Mathematics of University Autonoma (Madrid), Department of Mathematical Analysis of Granada and Department of Mathematical Analysis of Valencia. (2 weeks)
2. July 2007: Visitor at Department of Mathematical Analysis and Algebra of University of Almeria, invited by Professor J. Carmona. (1 week)
3. October 2007: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (1 week)
4. April 2008: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (2 weeks)
5. November 2008: Visitor at C.M.A.-University of Oslo, invited by Doct. F. Petitta (1 week)
6. November 2008: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (1 week)
7. February 2009: Visitor at at Department of Mathematical Analysis of University Valencia, invited by Professor Segura De León (1 week)
8. June 2009: Visitor at CMUC (Coimbra), invited by Professor I. de Figueiredo. (1 week)
9. February 2010: Visitor at at Department of Mathematical Analysis of University Valencia, invited by Doct. F. Petitta. (1 week)
10. May/June 2010: Visitor at at Department of Mathematics of University of Milan Bicocca, invited by Doct. A. Primo. (1 week)
11. July 2010: Visitor at at CMUC, Invited by Prof. Urbano. (1 week)
12. March 2011: Visitor at at Department of Mathematical Analysis of University Valencia, invited by Doct. F. Petitta. (1 week)
13. May 2011: Visitor at at Department of Mathematical Analysis and Algebra of University of Almeria, invited by Prof. J. Carmona.(1 week)
14. November 2011: Visitor at at Department of Mathematics of UAM, invited by Prof. I. Peral. (1 week)

15. January 2012: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (3 weeks)
16. Abril 2012: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (3 weeks)
17. June 2012: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (3 weeks)
18. March 2013: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (2 weeks)
19. May 2013: Visitor at Department of Mathematics of University Rome "Tor Vergata", invited by Professor A. Porretta. (1 week)
20. January 2014: Visitor at Department of pure and applied mathematics of University Padova, invited by Professor L.Rossi. (1 week)
21. March 2014: Visitor at Department of Mathematical Analysis of University Granada, invited by Professor D. Arcoya. (1 week)
22. April 2014: Visitor at Department of Mathematics, Visitor at at Department of Mathematics of UAM, invited by Prof. I. Peral. (1 week)
23. March 2015: Visitor at Math. Department of University Paris 9, invited by Professor A.Porretta. (1 week)
24. July 2015: Visitor at at Department of Mathematical Analysis of University Valencia, invited by Prof. S.Segura de León. (1 week)
25. July 2015: Visitor at at Department of Mathematic of University of Almeria, invited by Prof. J.Carmona Tapia. (1 week)
26. November 2015: Visitor at at Department of Mathematical Analysis of University Valencia, invited by Prof. S.Segura de León. (1 week)
27. March 2016: Visitor at at Department of Mathematics of UAM and UC3M, invited by Profs. A Primo and E.Colorado (1 week)
28. Abril 2016: Visitor at at Department of Mathematics of Università di Bologna (1 week)
29. July 2016: Visitor at at Department of Mathematics of UAM, invited by Prof. I. Peral. (2 weeks)
30. Abril 2019: Visitor at Department of Mathematics, Visitor at at Department of Mathematics of UALL, invited by Prof. B.Barrios. (2 weeks)

## **International Conferences and Courses**

1. June 2019, "Second Days Of Nonlinear Elliptic Pde" In Hauts-De-France, Université Du Littoral Cote D'opale, Calais (France).
2. June 2019 "II IMDE: Conference Amazon-Andalusia on PDEs" in Belém (Brazil).

3. July 2017, AIMS, Taipei (Taiwan).
4. June 2017, First Days Of Nonlinear Elliptic PDE in Hauts-De-France, Valenciennes
5. October 2016, Research Meeting On Non-Local Operators, Cagliari
6. COPDE, Munich, 25–29 March 2015
7. Congreso RSME 2015, Granada, 2–6 February 2015
8. 8th European Conference on Elliptic and Parabolic Problems, Gaeta (Italia), 26–30 May 2014.
9. Congreso de jóvenes Investigadores, Sevilla 16–20 September 2013
10. Nonlinear Partial Differential Equations On the occasion of J. Mazón's 60th birthday. Burjassot, Valencia, 1– 5 July 2013
11. Workshop on Nonlinear Elliptic PDE's and Applications, Granada 15 and 16 December 2011.
12. V Curso Internacional De Análisis Matemático En Andalucía. Almería, del 12 al 16 de septiembre de 2011.
13. XXII CEDYA Palma (Mallorca) del 5 al 9 de septiembre de 2011
14. Jornades D'interacció Entre Sistemes Dinàmics I Equacions En Derivades Parcial (JISD2011), Barcelona, June 27-July 01, 2011
15. The International Congress of Mathematicians, Hyderabad 19-27 August 2010
16. GNAMPA - ERC- SUMMER SCHOOL, from 13th to 18th June 2010, Ischia (Napoli, Italy).
17. INdAM Workshop on vector-valued mappings and systems of PDE's, Rome, Italy, 17-21 May 2010.
18. Nonlinear PDE and Boundary Value Problems with Measure Data, Technion - Israel Institute of Technology Haifa, Israel, 1-5 March 2010
19. School in Regularity Estimates for Nonlinear Elliptic and Parabolic Problems, June 22 - June 27, 2009 - Cetraro (CS), Italy
20. An international conference in memoriam Fuensanta Andreu. Burjassot, Spain, May 28-30, 2009
21. 2éme EPEDPNL'2009, Equations aux Drives Partielles Non Linaires, Ttouan, 31 March- 5 April 2009 .
22. June 18-20 2008, *Workshop on Elliptic and Parabolic Equations and Systems*, Napoli
23. April 7-11 2008, *Topics in PDE's and applications 2008*, Granada
24. December 13-15 2007, *CIM Workshop on PDE's, Numerical simulations and applications*, Coimbra, Portugal.

25. September 17-19 2007 *Primer Encuentro de la Red de Ecuaciones Parabólicas y Elípticas No Lineales* San José, Spain.
26. July 22–27 2007, *CIM/UC Summer School: Topics in Nonlinear PDEs*, Centro Internacional de Matematica (CIM), Coimbra, Portugal.
27. June 26-29, 2007, *An international conference in honour of Juan Luis Vázquez on the occasion of his 60th birthday*, El Escorial, Spain.
28. February 12–15 2007 *Recent Trends in Non-linear Partial Differential Equation: A celebration of the 60th birthday of Irene Peral*, Salamanca, Spain Febrero 2007.
29. October 30-November 1 *Renormalisation en EDP & Applications* ENSAM, Meknès, Maroc.
30. June 19-21 2006 *ESPALIA 2006*, Department of Mathematics, University of Rome “La Sapienza”.
31. February 5-10, 2006 *XVIe Giornate di Lavoro su “Questioni di Teoria Geometrica della Misura e di Calcolo delle Variazioni”*, Levico Terme (Trento).
32. January 16-20, 2006, *Third Trilateral Meeting Australia - Taiwan - Italia*, Department of Mathematics, University of Rome “La Sapienza”.
33. May 30–June 3, 2005: *Infinite energy solutions of partial differential equations and related topics*, INdAM meeting, Cortona.
34. January 10-14 2005, *Variational Methods and Nonlinear Differential Equations (in occasione del sessantesimo compleanno di Antonio Ambrosetti)*, Roma.
35. September 30–October 2, 2004: Meeting on *Teoria Geometrica della Misura e Calcolo delle Variazioni*, Lizzanello (Lecce).
36. September 20–24, 2004: Summer course on *Analysis and Applied Mathematics*, Rome.
37. August 2004: Summer course on *Calculus of variations*, Cortona 2004, held by A. Cellina (Univ. Bicocca di Milano), G. Bouchitt (Univ. Di Toulon).
38. May 30–June 3, 2004: *Fifth European Conference on Elliptic and Parabolic Problems (A Special Tribute to the work of Haim Brezis)*, Gaeta.
39. January 26–28, 2004, *School on Geometric Evolution Problems*, Roma.
40. January 28–31, 2003: International Conference on *Nonlinear evolution problems*, Rome.
41. January 9–11, 2003: *Giornate Nonlineari*, Rome.
42. 31 March -1 April 2003, *Conferenza Franco-Italiana in memoria di Guido Stampacchia*, Paris.

## Languages

- *Italian*: Mother tongue.

- *English*: Very good.
- *Spanish*: Very good.
- *Portuguese*: Basic.

## Organization

- Organizer of the congress "New trends in Partial Differential Equations", May 24-26 2017, Universidad de Granada.  
<http://congresoireneo.wixsite.com/home>
- Organizer of the congress "Espalia", June 17-19 2015, University of Rome "La Sapienza".  
<http://www.sbai.uniroma1.it/conferenze/espalia2015/homepage/Home.html>
- Organizer of the workshop "Workshop on nonlinear equations", October 17-18 2013, University Carlos III de Madrid.  
<https://sites.google.com/site/nonlinearmadri2013/home>
- Organizer of the Seminars at Universidad de Granada, from July 2014 to March 2017.
- Organizer of the "Incontri di Analisi maTEmatica allo SBAI" at "Sapienza" Università di Roma, from April 2017.

## Supervisions

- Co-director of the Ph.D. thesis of Stefano Buccheri, at Università di Roma "La Sapienza", Defended of January 2019.
- Director of the Master thesis of Antonio Jesús Fernández Sánchez: "Solutions of Elliptic Equations Involving Fractional Operators" defended on July 2016 at University of Granada (FisYMat program).
- Co-director (with Prof. D. Arcoya and Prof. S.Terracini) of the Master thesis of Stefano Buccheri, at Università di Torino. Title of the thesis: "Elliptic partial differential equations with quadratic growth with respect to the gradient". Final mark: 110 e lode
- Co-director (with Prof. D. Arcoya) of the Master thesis of Laura Gonella: "Periodic solutions for a class of singular nonlinear elliptic problems" defended on September 2011 at University of Granada (FisYMat program).

## Other Activities

- Referee for several international journals.
- Member of the p.h.d. committee of the thesis of Lourdes Moreno Merida (Universidad de Granada)
- October 2012– June 2013: Visitor Profesor at ICMAT
- 2000-2002: Collaboration fellow at *Library of Mathematics*, Department of Mathematics "G. Castelnuovo", University of Rome "La Sapienza".