

PERSONAL  
INFORMATION

Born in Rome on May 11, 1944. Male. Italian citizen. Married, two children.

## EDUCATION

1963-1967: Laurea in Fisica, University of Rome

## LANGUAGES

Italian (native), English (fluent), French (fluent), German (intermediate)

## POSITIONS HELD

1988-2014: Full Professor of Mathematical Analysis, University “Sapienza di Roma”, Faculty of Sciences

1981-1987: Full Professor of Mathematical Analysis, Second University of Rome “Tor Vergata”, Faculty of Engineering

1980: Full Professor of Mathematical Analysis, University “Sapienza di Roma”, Faculty of Engineering

1971-1980: Researcher, Istituto per le Applicazioni del Calcolo “M. Picone”, Consiglio Nazionale delle Ricerche, Rome.

ACADEMIC  
DISTINCTIONS

1994-2015: Socio Corrispondente of the Accademia Nazionale dei Lincei

2015-present: Socio Nazionale of the Accademia Nazionale dei Lincei

2022-present: President of the Foundation “I Lincei per la Scuola”, Accademia Nazionale dei Lincei

OTHER  
AFFILIATIONS

2013-present: Research Affiliate, Istituto per le Applicazioni del Calcolo “M. Picone”, Consiglio Nazionale delle Ricerche, Rome

TEACHING  
EXPERIENCE

- Calculus (1980, 1985, 1988, 1996, 2000, 2008)
- Advanced Calculus (1977, 1981, 1989, 1997)
- Real Analysis (1990, 1991, 1992, 1994, 1995, 1998, 2002, 2011, 2012, 2013, 2014)
- Complex Analysis (1990, 1991, 1992, 1994, 1995)
- Functional Analysis (1984, 2003, 2004)
- Ordinary Differential Equations (1999, 2000, 2002)
- Partial Differential Equations (1997, 2004, 2005, 2006, 2009, 2010)
- Mathematical Models of the Applied Sciences (2005, 2006, 2010)

GRADUATE AND  
POST-GRADUATE  
SUPERVISION:  
A SELECTION

- 2014: A.R. Fotache (M. Sc. thesis; subject: Weak convergence of measures and forward-backward parabolic equations)
- 2013: T. Savitska (PhD thesis; subject: Reaction-diffusion systems with nonlocal interactions; current state: Researcher, University of Zürich).
- 2013: G. Gravina (M. Sc. thesis; subject: Viscous Cahn-Hilliard equation and related topics; current state: Research Assistant Professor, Temple University, Philadelphia, USA)
- 2010-2012: Bui Le Troc Thanh (PhD thesis; subject: Measure-valued solutions of forward-backward parabolic equations; current state: Lecturer, Ho Chi Minh City University, Vietnam).
- 2009: C. Nobili (M. Sc. thesis; subject: Evolution equations on Riemannian manifolds; current state: Max-Planck-Institute PhD student, Leipzig)
- 2005-2009: F. Smarrazzo (PhD thesis; subject: Measure-valued solutions of forward-backward parabolic equations; current state: Associate Professor, University “Campus Biomedico”, Rome)
- 2005-2009: F. Punzo (PhD thesis; subject: Well-posedness of boundary value problems for elliptic-parabolic degenerate equations; current state: Full Professor, Politecnico, Milan)
- 2004-2010: *Coordinator of the PhD Program, Department of Mathematics, University “Sapienza di Roma”*
- 2001: L. Dupaigne (Post-doctoral fellow; subject: Semilinear elliptic equations with Hardy potential; current state: Assistant Professor, Université de Lyon 1, Lyon)
- 2000: D. Smets (Post-doctoral fellow; subject: Degenerate semilinear elliptic equations; current state: Full Professor, Université Paris VI)
- 1998: G. Reyes (Post-doctoral fellow; subject: Asymptotic behaviour of solutions of diffusion-convection equations; current state: Research Assistant Professor, University of Southern California, USA)
- 1997: A. Pisante (M. Sc. thesis; subject: Stability of travelling wave solutions of reaction - diffusion equations; current state: Full Professor, University “Sapienza di Roma”)
- 1997: L. Moschini (M. Sc. & PhD thesis; subject: Semilinear parabolic equations with Hardy potential; current state: Researcher, University “Sapienza di Roma”)
- 1991-1995: C. Marchi (PhD thesis; subject: Initial-boundary value problems for higher order parabolic equations; current state: Associate Professor, University of Padua)
- 1989-1992: A. Terracina (M. Sc. & PhD thesis; subject: Initial-boundary value problems for hyperbolic balance laws; current state: Associate Professor, University “Sapienza di Roma”)
- 1989-1992: C. Mascia (M. Sc. & PhD thesis; subject: Travelling wave solutions of hyperbolic balance laws; current state: Full Professor, University “Sapienza di Roma”)
- 1989-1992: C. Sinestrari (M. Sc. thesis; subject: Asymptotic behaviour of solutions of hyperbolic balance laws; current state: Full Professor, Second University of Rome “Tor Vergata” )
- 1987-1990: F. Guarguaglini (PhD thesis; subject: Singular solutions of hyperbolic balance laws; current state: Researcher, University of L’Aquila)
- 1987-1990: S. Claudi (PhD thesis; subject: Qualitative properties of solutions of diffusion - convection equations).

PROFESSIONAL  
ACTIVITIES

- 1989-1995: Co-founder and Member of the Board of Directors, Società Italiana di Matematica Applicata e Industriale (SIMAI)
- 1988-1992: Director, Progetto Strategico “Analisi Funzionale e Applicazioni”, Consiglio Nazionale delle Ricerche, Rome
- 1986-1996: Director, Istituto per le Applicazioni del Calcolo “M. Picone”, Consiglio Nazionale delle Ricerche, Rome
- 1984: Director, Department of Mathematics, Second University of Rome “Tor Vergata”

SCIENTIFIC  
PROGRAM  
ORGANIZATION:  
A SELECTION

- 2022- : President of the Foundation *“I Lincei per la Scuola”*, Accademia Nazionale dei Lincei, Rome
- 2017: Chairman of the Organizing Committee, Conference *“Mathematics and Social Sciences”*, Accademia Nazionale dei Lincei, Rome
- 2016-2022: Member of the Steering Committee, Centro Linceo Interdisciplinare *“B. Segre”*, Accademia Nazionale dei Lincei, Rome
- 2010-2013: Italian Team Coordinator, ITN European Research Network *“Fronts and Interfaces in Science and Technology”*, European Community
- 2010: Chairman of the Organizing Committee, Workshop *“Nonconvex Evolution Equations”*, Istituto Nazionale di Alta Matematica, Rome
- 2009-2011: Team Coordinator, PRIN Project *“Mathematical Population Theory: Methods, Models, Comparison with Data”*, Italian Ministry of University and Research
- 2005-2007: Project Coordinator, GNAMPA Project *“Interfaces and Singularities in Nonlinear Parabolic Problems”*, Istituto Nazionale di Alta Matematica, Rome
- 2003: Chairman of the Organizing Committee, Conference *“Nonlinear Evolution Problems”*, Accademia dei Lincei, Rome
- 2002-2006: Network Training Coordinator, European RTN Research Network *“Fronts and Singularities”*, European Community
- 1998-2002: Network Coordinator, European TMR Research Network *“Nonlinear Parabolic Partial Differential Equations: Methods and Applications”*, European Community
- 1995: Member of the Program Committee, *“Third International Conference in Industrial and Applied Mathematics”*, Hamburg
- 1991: Member of the Steering Committee, *“Second International Conference in Industrial and Applied Mathematics”*, Washington D.C.
- 1988-1996: Chairman of the Organizing Committee, *Concentration Years of the Istituto per le Applicazioni del Calcolo “M. Picone”*, Consiglio Nazionale delle Ricerche, Rome
- 1985: Co-Chairman of the Organizing Committee, Conference *“Nonlinear Parabolic Equations: Qualitative Properties of Solutions”*, Second University of Rome “Tor Vergata” .

EDITORIAL  
SERVICE

Associate Editor of *Rendiconti Lincei: Matematica e Applicazioni* (Accademia Nazionale dei Lincei & European Mathematical Society)

VISITING  
POSITIONS (SINCE  
1998)

- 2015: Eastern China Normal University, Shanghai
- 2015: Departement de Mathématiques, Université Paris-Sud, Paris
- 2014: Technion, Haifa
- 2013: Academia Hungarica, Budapest
- 2010: Graduate School of Mathematical Sciences, Tokyo State University, Tokyo
- 2009: Institute for Advanced Study of Mathematical Sciences, Meiji University, Tokyo
- 2007: College of Mathematics and Statistics, Sultan Qaboos University, Musqat, Oman
- 2007: Institute of Mathematical Sciences, Chinese University of Hong Kong
- 2006: Tata Institute of Fundamental Research, Bangalore

2005: Departamento de Matemáticas, Universidad Complutense, Madrid  
 2005: Graduate School of Mathematical Sciences, Tokyo State University, Tokyo  
 2004: Department of Mathematics, University of Minnesota, Minneapolis  
 2003: Laboratoire d'Analyse Numérique, Université de Paris VI, Paris  
 2003: Institute of Mathematics, Academia Sinica, Beijing  
 2002: Laboratoire d'Analyse Numérique, Université de Paris VI, Paris  
 2002: Departamento de Matemáticas, Universidad Carlos III, Madrid  
 2001: Academia Hungarica, Budapest  
 2000: Laboratoire d'Analyse Numérique, Université de Paris VI, Paris  
 2000: Department of Mathematics, Tel-Aviv University, Tel-Aviv  
 1999: Departement de Mathématiques, Université de Bordeaux I, Bordeaux  
 1998: Departamento de Matemáticas, Universidad Autónoma, Madrid.

INVITED  
 CONFERENCES  
 (SINCE 1998)

2019: *"Singular Problems, Blow-up and Regimes with Peaking in Nonlinear PDEs"*, Moscow  
 2018: *"Joint Meeting of UMI-SIMAI-PTM"*, Wrocław  
 2018: *"12th AIMS Conference on Dynamical Systems, Differential Equations and Applications"*, Taipei  
 2017: *"Reaction-Diffusion Systems, Theory and Applications"*, Tokyo  
 2016: *"New Trends in Calculus of Variations"*, Rome  
 2015: *"Workshop on Mathematics and Social Sciences"*, London  
 2015: *"Workshop on Reaction-Diffusion Equations and Mathematical Biology"*, Paris  
 2014: *"Conference on Mathematics and its Applications"*, Kuwait City  
 2014: *"Seventh International Conference on Differential and Functional Differential Equations"*, Moscow  
 2014: *"8th European Conference on Elliptic and Parabolic Problems"*, Gaeta  
 2013: *"Final Workshop of the European Community Project FIRST"*, Madrid  
 2012: *"Image Processing and Reaction-Diffusion"*, Jerusalem  
 2011: *"Mathematical Innovative Methods and Models of Biosciences"*, Trento  
 2010: *"Fronts and Interfaces in Science and Technology"*, Orsay  
 2009: *"Second Spring School on Nonlinear Partial Differential Equations"*, Tétouan  
 2008: *"Liouville theorems and Detours"*, Cortona  
 2008: *"Colloque Franco-Roumain"*, Brasov  
 2008: *"Differential Equations and Applications in Life Sciences"*, Iași  
 2007: *"Eighth Colloquium on the Qualitative Theory of Differential Equations"*, Szeged  
 2005: *"Asymptotic Analysis and Singularity"*, Sendai  
 2005: *"International Conference on Differential and Functional Differential Equations"*, Moscow  
 2004: *"Singularities and Front Propagation"*, Leiden

2003: *“Special EUCOR Meeting in Honour of C. Bandle”*, Basel

2003: *“Singularities in Nonlinear Problems”*, Bratislava

2002: *“Nonlinear Phenomena in Science”*, Leiden

2002: *“International Conference on Differential and Functional Differential Equations”*, Moscow

2001: *“Reaction-Diffusion Systems: Theory and Applications”*, Kyoto

2000: *“International Conference on Nonlinear Parabolic Partial Differential Equations”*, Tel-Aviv

1999: *“Functional Spaces, Differential Operators and Nonlinear Analysis”*, Syöte

1999: *“Nonlinear Partial Differential Equations: International Conference Dedicated to S.N. Kruzhkov”*, Besançon

1999: *“International Conference on Differential and Functional Differential Equations”*, Moscow

1999: *“Nonlinear Partial Differential Equations: International Conference Dedicated to J.P. Schauder”*, Lviv

1999: *“Workshop on Nonlinear Parabolic Problems”*, Leiden

1998: *“Colloque Franco-Néerlandais Dedicated to L.A. Peletier”*, Paris

1998: *“Recent Advances in Partial Differential Equations”*, Rome

1998: *“Problemi Attuali dell’Analisi e della Fisica Matematica”*, Taormina.

PREVIOUS  
RESEARCH  
INTERESTS

*Well-posedness of degenerate elliptic and parabolic problems:* Uniqueness of solutions to the Cauchy problem for parabolic equations. Liouville theorems for singular elliptic problems. Instantaneous blow-up for singular parabolic problems.

*Hyperbolic scalar conservation laws:* Existence, uniqueness and qualitative properties of entropy solutions. Blow-up phenomena.

*Volterra partial differential equations of parabolic type:* Asymptotic behaviour of solutions for large time.

*Quasilinear parabolic systems:* Qualitative properties of solutions of weakly coupled systems. Strongly coupled systems: existence, uniqueness and qualitative properties of solutions.

*Quasilinear parabolic equations:* Steady state solutions: existence, multiplicity, support properties. Asymptotic behaviour of solutions for large time. Time periodic solutions.

*Mathematical problems of quantum field theory:* Existence, uniqueness and qualitative properties of solutions.

PRESENT  
RESEARCH  
INTERESTS

*Nonconvex evolution equations and hyperbolic scalar conservation laws:* Existence and uniqueness of measure-valued entropy solutions. Formation and disappearance of singularities.

*Evolution equations on Riemannian manifolds and metric graphs:* Blow-up phenomena; pattern formation; travelling waves and propagation.

1. Punzo, F.; Tesei, A. Extinction and propagation phenomena for semilinear parabolic equations on metric trees (preprint, 2025).
2. Porzio, M.M.; Smarrazzo, F.; Tesei, A. Regularization and persistence in nonlinear diffusion equations with measure initial data (preprint, 2025).
3. Punzo, F.; Tesei, A. Monotonicity results for semilinear parabolic equations on metric graphs (preprint, 2024).
4. Punzo, F.; Tesei, A. Parabolic problems on metric graphs. *Japan J. Ind. Appl. Mat.* (2025, in press).
5. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Measure-valued solutions of scalar hyperbolic conservation laws, Part 2: Uniqueness. *Nonlinear Anal.* (2025, in press).
6. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Measure-valued solutions of scalar hyperbolic conservation laws, Part 1: Existence and time evolution of singular parts. *Nonlinear Anal.* **245** (2024). [10.1016/j.na.2024.113571]
7. Tesei, A. Diffusion phenomena on metric graphs. In: “Problems in Mathematical Biophysics - a volume in memory of Alberto Gandolfi”, SEMA SIMAI Springer (2024, in press).
8. Punzo, F.; Tesei, A. Blow-up on metric graphs and Riemannian manifolds. *Discr. Cont. Dyn. Syst. B* **28** (2023), 6362-6392.
9. Porzio, M.M.; Smarrazzo, F.; Tesei, A. Radon measure-valued solutions of unsteady filtration equations. *Discr. Cont. Dyn. Syst.* **43** (2023), 1595-1624.
10. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Discontinuous solutions of Hamilton-Jacobi equations versus Radon measure-valued solutions of scalar conservation laws: Disappearance of singularities. *J. Dynam. Differential Equations* **35** (2023), 455-491.
11. Porzio, M.M.; Smarrazzo, F.; Tesei, A. Noncoercive diffusion equations with Radon measures as initial data (2020). *J. London Math. Soc.* **105** (2022), 1823-1896.
12. Smarrazzo, F.; Tesei, A. *Measure Theory and Nonlinear Evolution Equations*, De Gruyter Studies in Mathematics **86**, De Gruyter, 2022. 34 + 422 pp.
13. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Discontinuous viscosity solutions of first order Hamilton-Jacobi equations. *J. Hyperbolic Differ. Equ.* **17** (2021), 1-42.
14. Tesei, A. Discontinuous solutions of  $U_t + H(U_x) = 0$  versus measure-valued solutions of  $u_t + [H(u)]_x = 0$ . *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **32** (2021), 391-411.
15. Tesei, A. Radon measure-valued solutions of quasilinear parabolic equations. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **32** (2021), 213-231.
16. Bertsch, M.; Smarrazzo, F.; Tesei, A. On a class of forward-backward parabolic equations: formation of singularities. *J. Differential Equations* **269** (2020), 6656-6698.
17. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Radon measure-valued solutions of first order hyperbolic conservation laws. *Adv. in Nonlinear Anal.* **9** (2020), 65-107.
18. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. Signed Radon measure-valued solutions of flux saturated scalar conservation laws. *Discr. Cont. Dyn. Syst.* **40** (2020), 3143-3169.
19. Bertsch, M.; Giacomelli, L.; Tesei, A. Measure-valued solutions to a nonlinear fourth-order regularization of forward-backward parabolic equations. *SIAM J. Math. Anal.* **51** (2019), 374-402.
20. Bertsch, M.; Smarrazzo, F.; Terracina, A.; Tesei, A. A uniqueness criterion for measure-valued solutions of scalar hyperbolic conservation laws. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **30** (2019), 137-168.
21. Bertsch, M.; Smarrazzo, F.; Tesei, A. On a class of forward-backward parabolic equations: Existence of solutions. *Nonlinear Anal.* **177** (2018), 46-87.
22. Bertsch, M.; Smarrazzo, F.; Tesei, A. On a class of forward-backward parabolic equations: Properties of solutions. *SIAM J. Math. Anal.* **49** (2017), 2037-2060.

23. Bertsch, M.; Smarrazzo, F.; Tesei, A. Nonuniqueness of solutions for a class of forward-backward parabolic equations. *Nonlinear Anal.* **137** (2016), 190-212.
24. Tesei, A. On a model for the nexus between resource wealth and political regimes. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **27** (2016), 465-495.
25. Bertsch, M.; Smarrazzo, F.; Tesei, A. Pseudo-parabolic regularization of forward-backward parabolic equations: Power-type nonlinearities. *J. Reine Angew. Math.* **712** (2016), 51-80.
26. Tesei, A. Pseudo-parabolic regularization of forward-backward parabolic equations with bounded nonlinearities. *Contemp. Math. Fund. Dir.* **60** (2016), 164-183.
27. Matano, H.; Punzo, F.; Tesei, A. Front propagation for nonlinear diffusion equations on the hyperbolic space. *J. European Math. Soc.* **17** (2015), 1199-1227.
28. Bertsch, M.; Smarrazzo, F.; Tesei, A. A note on the strong maximum principle. *J. Differential Equations* **259** (2015), 4356-4375.
29. Bertsch, M.; Smarrazzo, F.; Tesei, A. On a pseudoparabolic regularization of a forward-backward-forward equation. *Nonlinear Anal.* **129** (2015), 217-257.
30. Porzio, M. M.; Smarrazzo, F.; Tesei, A. Radon measure-valued solutions of nonlinear strongly degenerate parabolic equations. *Calc. Var. & PDE* **51** (2014), 401-437.
31. Bui, L.T.T.; M.; Smarrazzo, F.; Tesei, A. On the asymptotic limit of the viscous Cahn-Hilliard equation *J. Math. Anal. Appl.* **420** (2014), 1265-1300.
32. Bui, L.T.T.; M.; Smarrazzo, F.; Tesei, A. Sobolev regularization of a class of forward-backward parabolic equations *J. Differential Equations* **257** (2014), 1403-1456.
33. Smarrazzo, F.; Tesei, A. Degenerate regularization of forward-backward parabolic equations: The vanishing viscosity limit. *Math. Ann.* **355** (2013), 551-584.
34. Porzio, M. M.; Smarrazzo, F.; Tesei, A. Radon measure-valued solutions for a class of quasilinear parabolic equations. *Arch. Rat. Mech. Anal.* **210** (2013), 713-772.
35. Bertsch, M.; Smarrazzo, F.; Tesei, A. Pseudo-parabolic regularization of forward-backward parabolic equations: A logarithmic nonlinearity. *Analysis & PDE* **6-7** (2013), 1719-1754.
36. Smarrazzo, F.; Tesei, A. Degenerate regularization of forward-backward parabolic equations: The regularized problem. *Arch. Rat. Mech. Anal.* **204** (2012), 85-139.
37. Bandle, C.; Punzo, F.; Tesei, A. Existence and nonexistence of patterns on Riemannian manifolds. *J. Math. Anal. Appl.* **387** (2012), 33-47.
38. Smarrazzo, F.; Tesei, A. Entropy solutions of forward-backward parabolic equations with Devonshire free energy. *Networks Heterog. Media* **7** (2012), 941-966.
39. Pozio, M.A.; Punzo, F.; Tesei, A. Uniqueness and nonuniqueness of solutions to parabolic problems with singular coefficients. *Discr. Cont. Dyn. Syst.* **30** (2011), 891-916.
40. Bandle, C.; Pozio, M.A.; Tesei, A. The Fujita exponent in the hyperbolic space. *J. Differential Equations* **251** (2011), 2143-2163.
41. Smarrazzo, F.; Tesei, A. Some recent results concerning a class of forward-backward parabolic equations. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **22** (2011), 175-188.
42. Gilding, B.H.; Tesei, A. The Riemann problem for a forward-backward parabolic equation. *Physica D* **239** (2010), 291-311.
43. Smarrazzo, F.; Tesei, A. Long-time behaviour of solutions to a class of forward-backward parabolic equations. *SIAM J. Math. Anal.* **42** (2010), 1046-1093.
44. Punzo, F.; Tesei, A. On a semilinear parabolic equation with inverse-square potential. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **21** (2010), 359-396.
45. Punzo, F.; Tesei, A. On the refined maximum principle for degenerate elliptic and parabolic problems. *Nonlinear Anal.* **70** (2009), 3047-3055.

46. Mascia, C.; Terracina, A.; Tesei, A. Two-phase entropy solutions of a forward-backward parabolic equation. *Arch. Rat. Mech. Anal.* **194** (2009), 887-925.
47. Punzo, F.; Tesei, A. Uniqueness of solutions to degenerate elliptic problems with unbounded coefficients. *Ann. Inst. H. Poincaré - Analyse Nonlinéaire* **26** (2009), 2001-2024.
48. Tesei, A. Local properties of solutions of a semilinear elliptic equation with inverse-square potential. *J. Math. Sci.* **149** (2008), 1726-1740.
49. Pozio, M.A.; Punzo, F.; Tesei, A. Criteria for well-posedness of degenerate elliptic and parabolic problems. *J. Math. Pures Appl.* **90** (2008), 353-386.
50. Moschini, L.; Tesei, A. Parabolic Harnack inequality for the heat equation with inverse-square potential. *Forum Math.* **19** (2007), 407-427.
51. Kamin, S.; Pozio, M.A.; Tesei, A. Admissible conditions for parabolic equations degenerating at infinity. *St. Petersburg Math. J.* **19** (2007), 105-121.
52. Mascia, C.; Terracina, A.; Tesei, A. Evolution of stable phases in forward-backward parabolic equations. *Asymptotic Analysis and Singularities* (edited by H. Kozono, T. Ogawa, K. Tanaka, Y. Tsutsumi & E. Yanagida) pp. 451-478, *Adv. Stud. Pure Math.* **47-2**, Mathematical Society of Japan, Tokyo, 2007.
53. Moschini, L.; Reyes, G.; Tesei, A. Nonuniqueness of solutions to semilinear parabolic equations with singular coefficients. *Comm. Pure Appl. Anal.* **5** (2006), 155-179.
54. Brezis, H.; Dupaigne, L.; Tesei, A. On a semilinear elliptic equation with inverse-square potential. *Sel. Math.* **11** (2005), 1-7.
55. Pozio, M.A.; Tesei, A. On the uniqueness of bounded solutions to singular parabolic problems. *Discr. Cont. Dyn. Syst.* **13** (2005), 117-137.
56. Reyes, G.; Tesei, A. Self-similar solutions of a semilinear parabolic equation with inverse-square potential. *J. Differential Equations* **219** (2005), 40-77.
57. Moschini, L.; Tesei, A. Harnack inequality and heat kernel estimates for the Schrödinger operator with Hardy potential. *Atti Accad. Naz. Lincei Rend. Cl. Sci. Fis. Mat. Natur.* **16** (2005), 171-180.
58. Pohozaev, S.I.; Tesei, A. Nonexistence of local solutions to semilinear partial differential inequalities. *Ann. Inst. H. Poincaré - Analyse Nonlinéaire* **21** (2004), 487-502.
59. Kersner, R.; Tesei, A. Well-posedness of initial value problems for singular parabolic equations. *J. Differential Equations* **199** (2004), 47-76.
60. Reyes, G.; Tesei, A. Basic theory for a diffusion-absorption equation with variable density. *Nonlinear Differential Equations Appl.* **10** (2003), 197-222.
61. Smets, D.; Tesei, A. On a class of semilinear elliptic problems with first order terms. *Adv. Differential Equations* **8** (2003), 257-278.
62. Kersner, R.; Reyes, G.; Tesei, A. On a class of parabolic equations with variable density and absorption. *Adv. Differential Equations* **7** (2002), 155-176.
63. Marchi, C.; Tesei, A. Higher order parabolic equations without conditions at infinity. *J. Math. Anal. Appl.* **269** (2002), 352-368.
64. Pohozaev, S.I.; Tesei, A. Instantaneous blow-up of solutions to a class of hyperbolic inequalities. *Electronic J. Differential Equations*, **Conference 08** (2002), 155-165.
65. Pohozaev, S.I.; Tesei, A. Critical exponents for the absence of solutions for systems of quasilinear parabolic inequalities. (Russian) *Differ. Uravn.* **37** (2001), 521-528.
66. Moschini, L.; Pohozaev, S.I.; Tesei, A. On a class of nonlinear Dirichlet problems with first order terms. *International Conference on Differential and Functional Differential Equations*, *Funct. Differ. Equ.* **8** (2001), 345-352.
67. Tesei, A. Support properties of solutions to parabolic equations with variable density and absorption. *Reaction-Diffusion Systems: Theory and Applications* (Kyoto, 2001), 117-125.



68. Claudi, S.; Peletier, L.A.; Tesei, A. A free boundary problem involving convection and singular absorption. *J. Math. Anal. Appl.* **243** (2000), 191-216.
69. Gilding, B.H.; Natalini, R.; Tesei, A. How parabolic free boundaries approximate hyperbolic fronts. *Trans. Amer. Math. Soc.* **352** (2000), 1797-1824.
70. Moschini, L.; Pohozaev, S.I.; Tesei, A. Existence and nonexistence of solutions of nonlinear Dirichlet problems with first order terms. *J. Funct. Anal.* **177** (2000), 365-382.
71. Pohozaev, S.I.; Tesei, A. Blow-up of nonnegative solutions to quasilinear parabolic inequalities. *Atti Accad. Naz. Lincei Rend. Cl. Sci. Fis. Mat. Natur.* **11** (2000), 99-109.
72. Pohozaev, S. I.; Tesei, A. Existence and nonexistence of solutions of nonlinear Neumann problems. *SIAM J. Math. Anal.* **31** (2000), 119-133.
73. Natalini, R.; Tesei, A. On the Barenblatt model for non-equilibrium two phase flow in porous media. *Arch. Rat. Mech. Anal.* **150** (1999), 349-367.
74. Hanouzet, B.; Natalini, R.; Tesei, A. On the Chapman-Jouguet limit for a combustion model. *SIAM J. Math. Anal.* **29** (1998), 619-636.
75. Kamin, S.; Kersner, R.; Tesei, A. On the Cauchy problem for a class of parabolic equations with variable density. *Atti Accad. Naz. Lincei Rend. Cl. Sci. Fis. Mat. Natur.* **9** (1998), 279-298.
76. Natalini, R.; Tesei, A. Global existence and comparison properties of solutions to a nonlinear Goursat problem. *Nonlinear Boundary Value Problems* (Kiev, 1997), 199-208 (Inst. Appl. Math. Mech. NAS Ukraine, 1998).
77. Pohozaev, S. I.; Tesei, A. Existence of positive solutions for some nonlinear Neumann problems. *Dokl. Russ. Acad. Sci.* **363** (1998), 450-453.
78. Tesei, A. On uniqueness of the positive Cauchy problem for a class of parabolic equations. *Problemi Attuali dell'Analisi e della Fisica Matematica* (Taormina, 1998), pp.145-160.
79. Gilding, B.H.; Natalini, R.; Tesei, A. How parabolic free boundaries approximate hyperbolic fronts. *Differential Equations and Mathematical Physics* (Tbilisi, 1997), *Mem. Differential Equations Math. Phys.* **12** (1997), 62-67.
80. Tan, D.; Tesei, A. Nonlinear stability of strong detonation waves in gas dynamical combustion. *Nonlinearity* **10** (1997), 355-376.
81. Tesei, A. *Istituzioni di Analisi Superiore*, Bollati Boringhieri, Turin, 1997. vii+ 413 pp.
82. Natalini, R.; Sinestrari, C.; Tesei, A. Incomplete blowup of solutions of quasilinear hyperbolic balance laws. *Arch. Rational Mech. Anal.* **135** (1996), 259-296.
83. Pozio, M.A.; Tesei, A. On a class of nonlinear Neumann problems of parabolic type: blow-up of solutions. *Z. Anal. Anwend.* **15** (1996), 917-933.
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