

BIOGRAPHICAL SKETCH, PAOLO PODIO-GUIDUGLI

Born:

August 23, 1940; La Spezia, Italy

Degree:

Nuclear engineering, Università di Pisa, 1964

Research Interests:

Rational continuum physics in general, with emphasis on the mechanics of materials and structures: linear and non-linear elasticity; materials with internal constraints, oriented materials, materials with elastic range; rods, plates, and shells; wave motion; motion of phase interfaces in solids, crack propagation; dynamics of deformable ferromagnets; strain effects in superconductors; mechanics of carbon nanotubes and graphene; continuum theories of phase segregation by atomic rearrangement; continuum and statistical thermodynamics; conceptual issues in molecular dynamics, with special reference to the multiscale modelling of condensed matter.

Address:

Via Bergamo, 7 - 00198 Roma (Italy)

Phones: +39 06 85353716 (home); +39 320 4223236 (mobile); +39 06 72594698 (office)

E-mail: ppg@uniroma2.it

Current Position:

Visiting professor at the Department of Mathematics, University of Rome TorVergata
Via della Ricerca Scientifica, 1 - 00133 Roma (Italy)

Former Positions:

- Fellowships, Università di Pisa, 1964-1968
- Assistant Professor, Università di Pisa, 1969-1975
- Winner of national competitions for the chairs of Mathematical Physics and Strength of Materials, 1975; position chosen: Professor and Head, Istituto di Scienza delle Costruzioni, Università di Ancona, 1975-1977
- Professor of Strength of Materials, Università di Pisa, 1977-1983
- Professor of Strength of Materials, Università di Roma TorVergata, Nov 1983–Oct 2012; retired, Nov 2012

Other Appointments:

- Visiting Post-Doctoral Fellow in the Department of Mathematics, Carnegie-Mellon University, Pittsburgh, Pennsylvania, U.S.A., Sept-Nov 1972
- Lecturer at the Scuola di Perfezionamento Interuniversitaria, Firenze, Feb 1976
- Lecturer at the Scuola Estiva di Fisica Matematica, GNFM-CNR (i. Bari, Sept 1976; ii. Catania, Sept-Oct 1977; iii. Ravello, Sept 1981; iv. Ravello, Sept 1993)
- Lecturer at the International Center for Theoretical Physics, IAEA-UNESCO, Trieste (i. Oct-Nov 1976; ii. Dec 1977)

- Visiting Professor in the Programa de Engenharia Mecânica, COPPE–Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, Jul-Oct 1978
- Visiting Professor in the Department of Mathematics, Carnegie-Mellon University, Pittsburgh, Pennsylvania, U.S.A., Sept 1979-May 1980
- Visiting Research Scientist in the Department of Mechanics, Whiting School of Engineering, The Johns Hopkins University, Baltimore, Maryland, U.S.A., Aug 1980
- Lecturer in Theoretical Mechanics at the Scuola Superiore di Studi Avanzati, Trieste, Feb-March 1981
- Visiting Research Fellow (British Science Research Council) in the Department of Mathematics, University of Strathclyde, Glasgow, U.K., Sept 1983
- Visiting Professor, Mathematics Research Center, University of Wisconsin, Madison, Wisconsin, U.S.A., Jul-Aug 1984
- Lecturer at the Centro Internazionale di Scienze Meccaniche, Post-Doctoral Programme in Mechanical Sciences, Udine, Mar-Apr 1986
- Scientific Consultant at the Istituto per le Applicazioni del Calcolo “M. Picone” (I.A.C.), Roma (Nov 1986-Oct 1987)
- Scientific Consultant at the Department of Mathematics, Northwestern University, Evanston, Illinois, U.S.A. (one week in Aug 1987)
- Scientific Consultant at the Istituto CNUCE, Pisa (Nov 1987-Oct 1997)
- Visiting Professor in the Laboratoire d’Analyse Numérique, Université Pierre et Marie Curie - Paris VI, Paris, France, May 1988
- Lecturer at the Dottorato di Ricerca in Meccanica delle Strutture, Università di Bologna (1989-2000)
- Resident Scientist at I.M.A., Minneapolis, Minnesota, U.S.A., Sept 1990
- Lecturer at the Dottorato di Ricerca in Ingegneria delle Strutture, Università di Napoli, Mar-Apr 1991
- Lecturer at the Dottorato di Ricerca in Meccanica Applicata, Università di Roma “La Sapienza”, Jun-Jul 1991
- Lecturer in Mathematical Physics at the Istituto Nazionale di Alta Matematica, Roma, Mar-May 1992
- Lecturer at Graduiertkolleg Technomathematik and Zentrum für Techno- und Wirtschaftsmathematik, Universität Kaiserslautern, Kaiserslautern, Germany, Mar 1993
- Lecturer at the Department of Structural Engineering, University of São Paulo, Brazil, Aug 1996
- Lecturer at the “School on Modelling, Control and Numerical Simulation of Smart Systems”, Pavia, Sept 2003
- Lecturer at the Department of Mechanical Engineering, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, March 2004
- Lecturer at the CISM Course “Classical and Advanced Theories of Thin Structures: Mechanical and Mathematical Aspects”, Udine, Jun 2006
- Visiting Scientist in the Department of Mathematics, City University of Hong Kong, Sept 2007
- Lecturer at the Institute for Computational Engineering and Sciences and the Computational Visualization Center, University of Texas at Austin, Aug 2009, Feb-March 2011, Jan-Feb 2012, Feb-March 2013, May 2013, Feb 2014, March 2018
- Lecturer at the Structural Engineering Department/EESC, Universidade Federal de São Carlos, Brazil, Jan 2010
- Visiting Scientist in the Programa de Engenharia Mecânica, COPPE–Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, Oct 2013, May 2019
- Visiting Scientist at the Division of Physical Science and Engineering, KAUST, Saudi Arabia, April 2014
- Lecturer at MSME, Université Paris-Est Créteil, Apr 2016, Sept 2016

- Visiting Scientist at Okinawa Institute of Science and Technology, Mathematics and Mechanics Unit, Jun 2018, Feb 2019, May 2019
- Visiting Scientist at the École Nationale Supérieure d'Architecture Paris-Malaquais, Oct 2017, May 2018, Jan 2019

Main Service Activities:

- Italian leader of the research project “Variational Methods in Structural Mechanics”, Bilateral Cooperation Agreement between C.N.R. (Italy) and C.N.P_q (Brazil) (1979-1986)
- Project leader of national research projects: “Termomeccanica dei continui classici e con struttura”, 1986-1996; “Mathematical Models for Materials Science”, 1999-2000, 2001-2002 and 2003-2004; coordinator of the Rome 2 Unit 2005-2006
- Member of the General Assembly of I.U.T.A.M. (1994-2014)
- Elected member of the Scientific Council of GNFM (Gruppo Nazionale per la Fisica Matematica), 2001-2004, 2005-2008
- Project leader of “Some nonclassical problems for thin structures”, INTAS Project 06-1000017-8886 for South Caucasian Republics, 2007-2008
- President of the Scientific Committee, XIX Congress of AIMETA, Ancona, Sept 2009
- Corresponding Fellow of the *Accademia Nazionale dei Lincei*, Classe di Scienze Fisiche, Matematiche e Naturali (Categoria prima: Matematica, Meccanica e applicazioni – Sezione B: Meccanica ed applicazioni della Matematica) (2010-)
- Acting Head of the Department of Civil Engineering and Information Engineering, University of Rome TorVergata, May-July 2012
- Member of the Scientific Committee of MATHEX, Università Cattolica del S. Cuore, Milano, 2013/14–2016/17

Reviewing and Editorial Activities, Societies:

- Applied Mechanics Reviews (1976-1980); Mathematical Reviews (1980-1987); Zentralblatt für Mathematik (1985-1991)
- Advisory Board: Meccanica (1984-1994); European Journal of Mechanics A/Solids (1994-2015)
- Editorial Board: Stochastica (1980-1990); M3AS: Mathematical Models and Methods in Applied Sciences (1990-2004); SIAM Journal on Mathematical Analysis (Guest Editor, 1993-1994); IFB: Interfaces and Free Boundaries (1998-2003); Rendiconti del Seminario Matematico dell'Università di Padova (2000-2005); NoDEA: Nonlinear Differential Equations and Applications (2000-2008); Journal of Elasticity (1987-); Wave Motion (2001-2014); Meccanica (2006-2011); Rendiconti Lincei - Matematica e applicazioni (2010-)
- Society for Natural Philosophy (Arrangements Committee); Unione Matematica Italiana; S.I.M.A.I.; AIMETA; M.A.A.; A.M.S.; S.I.A.M.; International Society for the Interaction of Mechanics and Mathematics (Executive Committee 1994-1998)

Patent:

- Deployable Tensegrity Structure, especially for Space Applications. Inventors: Sciamiero, LG; Zolesi, V; Ganga, PL; Podio-Guidugli, P; Tibert, G; Micheletti, A. - European Patent No. 2 828 928 B1 (UK and ES) - United States Patent No. 9,815,574 B2

(<http://www.freepatentsonline.com/y2015/0151854.html>)

(<https://register.epo.org/application?number=EP12716619>)

Recognitions:

- “Recent Advances in Continuum Physics and Analysis”, a meeting to celebrate the 60th birthday of Paolo Podio-Guidugli. Università di Roma TorVergata, Roma, Nov 15-17, 2000
- Journal of Elasticity, January 2000, special issue dedicated to Paolo Podio-Guidugli on the occasion of his 60th birthday
- “Physics and Mathematics of Materials: Some Current Insights”, on the occasion of the 75th birthday of Paolo Podio-Guidugli. Gran Sasso Science Institute, L’Aquila, Jan 20-22, 2016

Invited Speaker to Meetings and Symposia:

- 1st Italian-Polish Meeting on Finite Elasticity, Jabłonna (Warsaw), Poland, Jul 1973
- Italian-American Symposium on Mixtures and Oriented Continua, Udine, Jun 1974
- International Symposium on Continuum Mechanics and Partial Differential Equations, Rio de Janeiro, Brazil, Aug 1977
- Italian-American Symposium on Non-Linear Mechanics, Venezia, May 1978
- 776th Meeting of the American Mathematical Society, Philadelphia, Pennsylvania, U.S.A., Apr 1980
- Workshop in Mathematical Physics, Cosenza, Oct 1980
- Meeting on Mathematical Problems in Continuum Mechanics, Trento, Jan 1981
- 2nd I.U.T.A.M. Symposium on Stability in the Mechanics of Continua, Nümbrecht, Germany, Sept 1981
- 1st Workshop on Waves and Stability in Continuous Media, Catania, Nov 1981
- Seminar on Problems in the Mechanics of Materials and Structures, Roma, May 1982
- 2nd Workshop on Waves and Stability in Continuous Media, Cosenza, Jun 1983
- 5ème Congrès sur les Applications des Mathématiques Pures à la Mécanique, Palaiseau (Paris), France, Nov 1983
- Workshop on Equilibrium and Stability Questions in Continuum Physics and Partial Differential Equations, Minneapolis, Minnesota, U.S.A., Sept 1984
- III Convegno su Insegnamento e Ricerca Matematica nelle Facoltà di Ingegneria, Napoli, Nov 1984
- Convegno sulla Termoelasticità Finita, Accademia Nazionale dei Lincei, Roma, May 1985
- XXIII Meeting of the Society for Natural Philosophy, Lexington, Kentucky, U.S.A., Dec 1985
- ItaBra 86, Rio de Janeiro, Brazil, Aug 1986
- Workshop on Saint-Venant’s Principle and Problem, Edinburgh, U.K., May 1987
- XXV Meeting of the Society for Natural Philosophy, Baltimore, Maryland, U.S.A., Apr 1988
- Convegno celebrativo della nascita di A.Signorini, Accademia Nazionale dei Lincei, Roma, Apr 1988
- Joint Meeting of Society of Engineering Science & Applied Mechanics Division of American Society of Mechanical Engineers, Berkeley, California, U.S.A., Jun 1988
- Minisymposium on Plasticity, I.M.A. Program in Nonlinear Waves, University of Minnesota, Minneapolis, Minnesota, U.S.A., Feb 1989
- Workshop on Some Topics in Non-Linear PDE’s, Torino, Oct 1989
- 5th International Conference on Waves and Stability in Continuous Media, Sorrento, Oct 1989
- XXXIII Meeting of the Society for Natural Philosophy on Variational Methods in Continuum Mechanics, Pittsburgh, Pennsylvania, U.S.A., Nov 1989
- Meeting on Calculus of Variations, Elasticity and Crystals, Trento, Dec 1989

- Meeting on Matematiche Probleme in der nichtlinearen Elastizität, Oberwolfach, Germany, June 1990
- First Rutgers Conference on Theoretical Mechanics, “The Dynamics of Rods”, New Brunswick, New Jersey, U.S.A., Aug 1990
- IV Italian-German Symposium on the Applications of Mathematics in Industry and Technology, München, Germany, Apr 1991
- Convegno INDAM su “Materiali dotati di memoria e continui con microstruttura”, Cortona, May 1991
- Meeting on Advances in Modern Continuum Dynamics, Isola d’Elba, Jun 1991
- Plasticity ’91 Symposium, Grenoble, France, Aug 1991
- 22nd Midwestern Mechanics Conference, Rolla, Missouri, U.S.A., Oct 1991
- Workshop on “Surface Tension and Movement by Mean Curvature”, Trento, Jul 1992
- Workshop on “Crescita di Cristalli Artificiali: Modelli e Trattamento Numerico”, Roma, Nov 1992
- XXXVII Meeting of the Society for Natural Philosophy on Mathematical Aspects of Continuum Mechanics, A Symposium in Honor of Walter Noll on the Occasion of his Retirement from Teaching, Pittsburgh, Pennsylvania, U.S.A., Apr 1993
- Euromech Colloquium 290, “Mechanics of Swelling”, Rhodos, Greece, Aug 1993
- Euromech Colloquium 321, “Microstructures and phase transitions in solids”, Udine, Italy, May 1994
- West Pomfret Meeting, Caltech, Pasadena, California, U.S.A., Jan 1995
- Third Meeting on Current Ideas in Mechanics and Related Fields, Segovia, Spain, June 1995
- Conference on “Evolutionary Problems for Dynamical Systems”, dedicated to L. Salvadori, Trento, Oct 1995
- Convegno in onore di G. Capriz, Pisa, Oct 1995
- Modern Group Analysis VI, Johannesburg, South Africa, January 1996
- Symposium in Elasticity to honor Prof. Jerald L. Ericksen, Baltimore, Maryland, U.S.A., June 1996
- Conference on “Recent Developments in Solid Mechanics” in honor of W. Altman, Rio de Janeiro, Brazil, Aug 1996
- Giornata Lincea su “Il Problema di de Saint-Venant: Aspetti Teorici e Applicativi”, Roma, Mar 1997
- Modern Group Analysis VII, Nordfjordheid, Norway, June 1997
- Mathematical Aspects of Mechanics, An International Meeting Dedicated to the Seventieth Birthday of G.I. Barenblatt, Roma, July 1997
- Fourth Meeting on Current Ideas in Mechanics and Related Fields, Dedicated to H. Zorski, Cracow, Poland, Aug 1997
- INCOWASCOW 97, 9th International Conference on Waves and Stability in Continuous Media, Bari, Oct 1997
- Models and Numerical Methods in Transport Theory and in Mathematical Physics, An international conference dedicated to Vinicio Boffi on his 70th birthday, Roma, Apr 1998
- Interactions between Analysis and Mechanics. The legacy of Gaetano Fichera. Roma, Accademia Nazionale dei Lincei, Apr 1998
- Recent Advances in Partial Differential Equations. A tribute to Guido Stampacchia on the 20th anniversary of his death. Roma, May 1998
- Interfaces in Continuous Media, Lisbon, Mar 1999
- Workshop in the honor of R.L. Fosdick, Blacksburg, Virginia, U.S.A., Jun 1999
- XVI Congresso Nazionale U.M.I., Napoli, Sept 1999 (general lecture)
- SIMAI 2000, Ischia, Jun 2000 (general lecture) -
- Recent Contributions to Modeling Evolution Problems, a meeting in the memory of Andrea Donato, Messina, Jan 2001

- Colloque Lagrange “Tensegrité: Analyse et Projets”, Villa Mondragone, Roma, May 2001
- WASCOM 2001, 11th International Conference on Waves and Stability in Continuous Media, Porto Ercole, Jun 2001
- I Conferenza di Ricerca DICA, Politecnico di Bari, Bari, Jun 2001
- Symposium on the Eshelbian Mechanics of Materials, 2001 ASME Mechanics of Materials Conference, San Diego, California, U.S.A., Jun 2001
- International Symposium on Structured Media, in memory of Professor Ekkehart Kröner, Poznan, Poland, Sept 2001
- Fourth European Conference on Elliptic and Parabolic Problems, Gaeta, Sept 2001
- Magnetic Microstructures 01, Max Planck Institute-Leipzig, Germania, Oct 2001
- Convegno in onore dei 90 anni del Prof. Giuseppe Grioli, Padova, Accademia Patavina, Apr 2002
- 2nd Canadian Conference on Nonlinear Solid Mechanics, Vancouver, Jun 2002 (plenary lecture)
- Symposium on Partial Differential Equations to celebrate the Seventy-Fifth Birthday of James Serrin, Perugia, Jun 2002
- STAMM 2002, Symposium on Trends in Applications of Mathematics to Mechanics, Maiori (Salerno), Sept-Oct 2002
- Symposium in honour of the memory of C.A. Truesdell, Torino, Accademia delle Scienze, Nov 2002
- “New Trends in Mathematical Physics”, a meeting to celebrate the seventieth birthday of Salvatore Rionero, Napoli, Jan 2003
- EUROMECH Colloquium 445 “Mechanics of Materials”, Kaiserslautern, Germany, May 2003
- 19th Canadian Congress of Applied Mechanics CANCAM 2003, Calgary, Jun 2003 (keynote speaker)
- “Materiali Speciali e Memorie: Problemi Modellistici e Analitici”, Salò (BS), Jul 2003
- “Multiscale Effects in Material Microstructures and Defects”, 42nd meeting of the Society for Natural Philosophy, Lexington, Kentucky, U.S.A., Sept 2003
- “Principles, Methods and Taste in Continuum Physics and Mathematical Analysis”, a symposium in honor of Mort Gurtin on the occasion of his 70th birthday, Pittsburgh, Pennsylvania, U.S.A., Jun 2004
- “Modelli Matematici e Problemi Analitici per Materiali Speciali”, Salò (BS), Jul 2004
- “Variational Problems in Materials Science”, SISSA, Trieste, Sept 2004
- Giornata in onore del Prof. Alfonso Laratta, Modena, Oct 2004
- Riunione annuale PRIN “Nonlinear Mathematical Problems of Wave Propagation and Stability in Models of Continuous Media”, Bressanone, Jan 2005
- “Mathematical Modeling in Continuum Mechanics and Structures”, Alghero, May 2005
- MecMat2005, Symposium honoring the contributions of Elias Aifantis, Baton Rouge, Louisiana, U.S.A., Jun 2005
- WASCOM05, 13th International Conference on Waves and Stability in Continuous Media, Acireale, Jun 2005
- “Partial Differential Equations and Applications”, Rome, March 2006
- “New Trends in Mathematical Methods for Engineers”, Latina, May 2006
- “Variational Formulations in Mechanics: Theory and Applications”, a workshop dedicated to the 60th birthday of Prof. Raul A. Feijoo, Petropolis, Brazil, Sept 2006
- Workshop on “Microscopic Approaches to Elastic and Surface Tension Functionals”, Roma, Oct 2006
- International Symposium on “Defect and Material Mechanics”, Aussois, France, March 25-29, 2007
- IUTAM Symposium on “Relation of Shell, Plate, Beam and 3D Models”, Tbilisi, Georgia, Apr 22-28, 2007 (closing plenary lecture)

- Colloquium Lagrangianum 2007, Ecole Polytechnique, Paris, France, Dec 6-8, 2007
- EUROMECH-MECAMAT Conference “Mechanics of microstructured solids: cellular materials, fibre reinforced solids and soft tissues”, Torino, March 10-14, 2008
- Workshop on “The mathematics of growth and remodelling of soft biological tissues”, Oberwolfach, 1-5 Sept, 2008
- International Workshop on “New directions in continuum mechanics: on the interplay among mathematics, mechanics and physics”, Castro Urdiales, Cantabria, Spain, Sept 8-11, 2008
- SIMAI 2008, Minisimposium on “Interactions between Continuum Physics and Molecular Dynamics”, Roma, 15-16 Sept, 2008
- VIII International Seminar on Geometry, Continua and Microstructures, Catania, Oct 10-12, 2008
- IUTAM Symposium on “Progress in the Theory and Numerics of Configuration Mechanics”, Erlangen, Germany, Oct 20-24, 2008
- International Conference on Partial Differential Equations and Applications – in honour of Professor Philippe G. Ciarlet’s 70th birthday, City University of Hong Kong, China, Dec 5-8, 2008
- EUROMECH Colloquium 510 ”Mechanics of generalized continua - A hundred years after the Cosserats”, Paris, May 2009
- 2nd World Symposium on Multiscale Material Mechanics & Engineering Sciences, AUT, Thessaloniki, Greece, May 2009
- “A Thermodynamics Day”, Dipartimento di Matematica Pura ed Applicata & Dipartimento di Metodi e Modelli per le Scienze Applicate, Università di Padova, June 2009
- ISDMM09 (4th International Symposium on Defect and Material Mechanics), Trento, Jul 6-9, 2009 (keynote speaker)
- XXI CEDYA (Congreso de Ecuaciones Diferenciales y Aplicaciones) - XI CMA (Congreso de Matematica Aplicada), Ciudad Real, Spain, Sept 21-25, 2009 (plenary speaker)
- 11th Pan-American Congress of Applied Mechanics - PACAM XI, Foz do Iguacu, PR, Brazil, Jan 4-8 2010 (plenary speaker)
- “Unilateral Problems in Structural Analysis”, Palmanova (UD), 17-19 June 2010
- “Advances in Continuum Mechanics and Thermodynamics”, a meeting in honor of the 65th birthday of Victor Berdichevsky, Bochum, Germany, June 30-July 2 2010
- “Evolution Equations and Materials with Memory”, Rome, 12-14 July 2010
- “Topical Problems of Continuum Mechanics”, Dilijan, Armenia, Oct 4-8 2010 (plenary speaker)
- “Problems of Mechanics of Deformable Bodies”, a symposium dedicated to the 100th anniversary of birthday of A.A. Ilyushin, Moscow, Russia, Jan 20-21 2011
- Convegno in onore del Professor Cesare Davini, Udine, Feb 25-26 2011
- “Between Mechanics and Mathematics: the non-smooth view by Michel Frémond”, Gargnano (BS), Jun 21-22 2011
- “Continuum Mechanics and Related Problems of Analysis”, international conference dedicated to the 120th birthday anniversary of Academician N. Muskhelishvili, Sept 9-14 2011, Tbilisi, Georgia (plenary speaker)
- II International Conference of the Georgian Mathematical Union, Batumi, Georgia, Sept 15-19 2011, (plenary speaker)
- Giornate di Studio sui Modelli della Meccanica dei Continui, in onore del Professore Giuseppe Grioli nell’occasione del suo 100° compleanno, Messina, Apr 13-14 2012
- AIMS Conference Series on Dynamical Systems and Differential Equations, Special session on “Nonlinear Evolution PDEs and Interfaces in Applied Sciences”, Orlando (FLA), July 1-5 2012
- ICTAM 2012, SM04 Elasticity, Beijing, China, Aug 22, 2012 (invited lecture)

- PDEs for multiphase advanced materials ADMAT2012, Cortona (AR) Sept 17-21, 2012 (invited lecture)
- “Piezoelectric Nanodevices: Present and Future”, Accademia Nazionale dei Lincei, Sept 28, 2012
- 50th Meeting of the Society for Natural Philosophy, “New materials and new problems in continuum mechanics”, Udine, Oct 22-24 2012 (plenary speaker)
- VII Italian - Latin American Conference on Industrial and Applied Mathematics (VII ITLA 2012) , Rosario, Argentina, Dec 17-21, 2012 (plenary speaker)
- “Advances in Computational Mechanics”, a conference celebrating the 70th birthday of T.J.R. Hughes, S. Diego (CA), Feb 24-27, 2013
- XVII International Conference on “Waves and Stability in Continuous Media”, Special Sessions in Honour of Prof. Salvatore Rionero, Levico, June 17-21, 2013
- Sixth International Conference on Nonlinear Mechanics (ICNM-VI), Shanghai, China, August 12-15, 2013 (plenary speaker)
- 1st International Conference “Shell and Membrane Theories in Mechanics and Biology: From Macro- to Nanoscale Structures”, Minsk (Belarus), Sept 16-20, 2013
- XXI Congresso AIMETA, Torino, Sept 17-20, 2013 (plenary speaker)
- 51th Meeting of the Society for Natural Philosophy, “Mathematics and Mechanics in the Physical Sciences: A Tribute to James Serrin”, Minneapolis (MN), Nov 14-16, 2013 (plenary speaker)
- MPMS 2014 International Colloquium, Paris, France, Oct 6-8, 2014
- 52nd Meeting of the Society for Natural Philosophy, “Scale Bridging in the Mathematical and Mechanical Sciences”, Rio de Janeiro, Brazil, Oct 22-24, 2014 (plenary speaker)
- “The Powerful Continuum Mechanics”, in honour of Antonio DiCarlo’s 70th birthday, Brescia 13-14 Nov, 2014
- 64th Meeting on “Variational Analysis and Aerospace Engineering III: Mathematical Challenges for the Aerospace of the Future”, Erice, 28 Aug- 5 Sept, 2015
- 53d Meeting of the Society for Natural Philosophy, “Geometry and Mechanics. Celebrating Marcelo Epstein’s 70th birthday”, Calgary, Canada, Aug 19-21, 2015 (Clifford Ambrose Truesdell III Lecturer)
- “Marrying continuum and molecular physics: the Andersen-Parrinello-Rahman method revised into a scale bridging device”, CECAM - HQ - EPFL, Lausanne, Switzerland, May 23-26, 2016 (invited lecturer)
- “New Frontiers in Continuum Mechanics”, Accademia Nazionale dei Lincei, Roma, Jun 2016
- “Recent Advances in the Mechanics of Materials”, University of Sassari at Alghero, Nov 27-28, 2016
- “James SERRIN: from His legacy to the new frontiers”, Perugia, Jan 30-Feb 3, 2017 (plenary speaker)
- “Hierarchical multiscale methods using the Anderson-Parinello-Rahman formulation of molecular dynamics”, OIST, Okinawa, Japan, Apr 3-8, 2017 (invited lecturer)
- “Harnack’s Inequalities and Nonlinear Operators”, in honor of Prof. Emmanuele DiBenedetto on the occasion of his 70th birthday, Cortona, June 18-24, 2017
- CoMFoS17 (Mathematical Analysis of Continuum Mechanics), OIST Graduate University, Okinawa, Japan, Sept 20-22, 2017
- Third International Conference on Application of Mathematics and Informatics in Natural Sciences and Engineering (AMINSE 3), dedicated to the 80th Anniversary of Prof. David Gordeziani. I.Vekua Institute of Applied Mathematics of Iv. Javakhishvili Tbilisi State University, Tbilisi, Georgia, Dec 6-9, 2017 (plenary speaker)
- “International Conference on Applied Mathematics 2018”, LBJ Centre and Department of Mathematics of City University of Hong Kong, Jun 4-7, 2018

- “From shape memory alloys to Cahn-Hilliard systems: a journey of friendship and collaboration” (one-day session of SMACS 2018, held to celebrate Pierluigi Colli’s 60th and Juergen Sprekels’ 70th birthdays) Palazzo Feltrinelli, Gargnano (Brescia), Jun 18-22, 2018.
- “Leonardo. Il Corpo dell’Uomo”, Accademia Nazionale dei Lincei e Istituto Superiore di Sanità, Roma, Apr 8-9, 2019
- RAMSS2019-Recent Advances in Mechanics of Solids and Structures, Trento, June 6-8, 2019

Invited Colloquium Lecturer:

- Università di Trento (Dipartimento di Matematica; Dipartimento di Meccanica Strutturale e Progettazione Automatica)
- Carnegie-Mellon University, Pittsburgh, Pennsylvania (Department of Mathematics; Department of Mechanical Engineering)
- Università di Cagliari (Istituto di Scienza delle Costruzioni)
- Università di Padova (Seminario di Analisi e Meccanica)
- Istituto Universitario di Architettura, Reggio Calabria
- Università della Calabria, Cosenza (Dipartimento di Strutture)
- Universidade Federal do Rio de Janeiro (Departamento de Engenharia Mecânica; Departamento de Engenharia Civil)
- Laboratório Nacional de Computação Científica, CNPq, Rio de Janeiro
- Politecnico di Milano (Dipartimento di Ingegneria Chimica)
- Brown University, Providence, Rhode Island (Division of Engineering; Division of Applied Mathematics)
- University of Florida, Gainesville, Florida (College of Engineering)
- The Johns Hopkins University, Baltimore, Maryland (J. Whiting School of Engineering)
- University of Minnesota, Minneapolis (MN) (Department of Mathematics; Department of Chemical Engineering)
- Sandia Laboratories, Albuquerque, New Mexico (Geomechanics Research Division)
- University of California, Berkeley, California (Department of Mathematics)
- Università di Napoli (Istituto di Matematica; Istituto di Scienza delle Costruzioni, Facoltà di Architettura)
- E.N.S.E.M., Institut National Polytechnique de Lorraine, Nancy
- Università di Torino (Istituto di Fisica Matematica)
- I.N.R.I.A., Rocquencourt
- Université Pierre et Marie Curie, Paris (Laboratoire d’Analyse Numérique)
- Università di Bari (Istituto di Scienza delle Costruzioni, Facoltà di Ingegneria; Dipartimento di Matematica)
- Università di Genova (Istituto di Scienza delle Costruzioni, Facoltà di Architettura)
- Università di Pavia (Istituto di Matematica; Dipartimento di Meccanica Strutturale)
- Istituto CNUCE/C.N.R., Pisa
- Istituto per le Applicazioni del Calcolo “M.Picone”, Roma
- Università di Catania (Dipartimento di Matematica)
- Università di Roma “La Sapienza” (Dipartimento di Matematica; Dipartimento di Metodi e Modelli Matematici per le Scienze Applicate; Dipartimento di Ingegneria Strutturale e Geotecnica)
- Università di Udine (Istituto di Meccanica Teorica e Applicata)
- Università di Bologna (Dipartimento di Matematica)
- Università di L’Aquila (Dipartimento di Matematica)
- Rutgers University, Piscataway, New Jersey (College of Engineering)
- Università di Pisa (Dipartimento di Matematica; Istituto di Scienza delle Costruzioni)

- Università di Ancona (Dipartimento di Matematica; Istituto di Scienza delle Costruzioni)
- University of New Orleans, New Orleans, Louisiana (Department of Mathematics)
- University of Pittsburgh, Pittsburgh, Pennsylvania (Department of Mechanical Engineering)
- Terza Università di Roma (Facoltà di Architettura)
- Istanbul Technical University (Department of Engineering Science)
- University of Cape Town (Department of Mathematics and Applied Mathematics)
- Università di Ferrara (Istituto di Ingegneria)
- Laboratoire de Modélisation en Mécanique, CNRS and Université de Paris VI
- ENEA, Centro Ricerche Casaccia, Roma
- École Polytechnique, Palaiseau, Paris
- Laboratoire National des Ponts et Chaussées, Paris
- Università di Salerno (Dipartimento di Matematica; Dipartimento di Ingegneria Civile)
- Lehrstuhl für Technische Mechanik, TU Kaiserslautern
- Department of Mathematics, Université Libre de Bruxelles
- Mathematical Institute of the Charles University, Prague
- Laboratoire de Mécanique Physique, Université Paris 12 – Val de Marne
- Institut für Analysis, Fachrichtung Mathematik, TU Dresden
- Applied Mechanics, University of Erlangen-Nuremberg
- Centre des Recherches Mathématiques, McGill University, Montreal
- Department of Civil Engineering and Applied Mechanics, McGill University, Montreal
- Laboratorio di Fisica, Università Campus Bio-medico, Roma
- Programa de Pós-Graduação Interunidades Bioengenharia, São Carlos Campus I of the University of São Paulo
- Institute of Problems in Mechanical Engineering, St. Petersburg
- I.C.E.S. & Computational Visualization Center, University of Texas at Austin
- Technische Universität Dresden, Institut für Analysis
- Dipartimento di Ingegneria Civile, Ambientale e Meccanica, Università di Trento
- Dipartimento di Matematica e Fisica “N. Tartaglia”, Università Cattolica del Sacro Cuore, Brescia
- LABEX MMCD, Université Paris-Est Créteil
- Séminaire Navier, Cité Descartes
- Dipartimento Politecnico di Ingegneria e Architettura, Università di Udine
- SISSA, Trieste

Published Papers:

- Parametri di rilassamento nell'impiego delle armature da precompresso, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume VII, pp. 120-139 (1966) (with F. Selleri)
- Sui requisiti delle armature da precompresso, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume VII, pp. 183-204 (1966) (with F. Selleri)
- Su una legge di rilassamento empirica per gli acciai da precompresso, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume VII, pp. 227-247 (1966) (with F. Selleri)
- Termodinamica dei modelli reologici viscoelastici, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume VIII, pp. 207-217 (1967)
- Deformazioni dinamiche finite di un guscio sferico di materiale isotropo elastico comprimibile, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume IX, pp. 230-240 (1968)
- Relazioni di media e limitazioni inferiori per le componenti di tensione nella statica dei continui deformabili, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume X, pp. 48-62 (1969)
- Monotonic difference operators for rectangular plates, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume X, pp. 244-256 (1969)
- A second-order solution for simply compressed rubber bearings, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume X, pp. 257-277 (1969) (with G. Del Piero)
- Collapse loads for reinforced rubber bearings in simple compression, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume XI, pp. 115-128 (1970) (with G. Del Piero)
- Problemi quasi lineari per travi su suolo elastico, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume XI, pp. 93-114 (1970) (with F. Selleri)
- Sull'immersione di corpi monodimensionali in un continuo vincolato, pp. 39-77 of Atti del I Congresso Nazionale di Meccanica Teorica ed Applicata (Udine, 1971), Volume II, Part I, Udine, C.I.S.M., 1972 (with F. Andreussi). Reprinted in Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume XII, pp. 23-46 (1971)
- Condizioni di monotonia per operatori differenziali lineari ordinari, pp. 301-323 of Atti del I Congresso Nazionale di Meccanica Teorica ed Applicata (Udine, 1971), Volume I, Udine, C.I.S.M., 1972 (with F. Selleri). Reprinted in Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume XII, pp. 81-94 (1971)
- Thermomechanical constraints in simple materials, Bulletin de l'Academie Polonaise des Sciences, Serie des Sciences Techniques, Volume XXI, pp. 199-205 (1973) (with F. Andreussi)
- The thermodynamics of constrained materials, Archive for Rational Mechanics and Analysis, Volume 51, pp. 192-208 (1973) (with M.E. Gurtin)
- Stabilità infinitesima di materiali elastici incomprimibili in deformazione finita, Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa, Volume XIII, pp. 117-128 (1973) (with F. Selleri)
- Alcune applicazioni della teoria delle trasformazioni monotone tra spazi semiordinati, pp. 277-280 of Rapporti tra ricerca matematica pura e ricerca matematica applicata (Convegno U.M.I., Siena, 1973), Bologna, Off. Graf. Pitagora-Tecnoprint, 1973. Reprinted as Pubbl. n. A. 73-18 - I.E.I., C.N.R., Pisa (1973)
- An axiomatic approach to the theory of thermomechanically constrained materials, pp. 359-364 of Problems of Plasticity, Volume II (Symposium on Foundations of Plasticity, Warsaw, 1972), Leyden, Noordhoff International Publishing, 1974 (with F. Andreussi)
- On the basic laws of reacting mixtures of structured continua, MECCANICA, Volume IX, pp. 9-15 (1974) (with G. Capriz)

- A geometrical interpretation of monotonicity of matrices, *Bollettino dell'Unione Matematica Italiana*, Volume IX, pp. 757-766 (1974) (with F. Andreussi)
- Material stability restrictions on the response function in finite elasticity, *Journal of Elasticity*, Volume IV, pp. 147-154 (1974) (with F. Selleri)
- On Signorini's perturbation method in finite elasticity, *Archive for Rational Mechanics and Analysis*, Volume 57, pp. 1-30 (1974) (with G. Capriz)
- An existence and uniqueness theorem in linear elastodynamics, *MECCANICA*, Volume X, pp. 194-197 (1975)
- Discrete and continuous bodies with affine structure, *Annali di Matematica Pura ed Applicata (IV)*, Volume CXI, pp. 195-211 (1976) (with G. Capriz)
- Formal structure and classification of theories of oriented materials, *Annali di Matematica Pura ed Applicata (IV)*, Volume CXV, pp. 17-39 (1977) (with G. Capriz)
- De Giorgi's counterexample in elasticity, *Quarterly of Applied Mathematics*, Volume 34, pp. 411-419 (1977)
- A new proof of the representation theorem for isotropic, linear constitutive relations, *Journal of Elasticity*, Volume 8, pp. 319-322 (1978) (with L.C. Martins)
- Elastic bodies in a Signorini-type environment, pp. 225-236 of *Contemporary Developments in Continuum Mechanics and Partial Differential Equations*, G. de La Peña and L.A.J. Medeiros Ed.s, North-Holland, 1978
- The role of Fredholm conditions in Signorini's perturbation method, *Archive for Rational Mechanics and Analysis*, Volume 70, pp. 261-288 (1979) (with G. Capriz)
- On modelling the solids conveying zone of a plasticating extruder, *Polymer Engineering and Science*, Volume 20, pp. 709-715 (1980) (with G. Attalla)
- Perturbations of bifurcations: simple structural examples, *Atti dell'Istituto di Scienza delle Costruzioni dell'Università di Pisa*, Volume XVI, pp. 165-179 (1979)
- Uma caracterização variacional da vorticidade, *COPPE/UFRJ's Anniversary Volume*, 1978 (with L.C. Martins). Italian translation in *Rendiconti del Seminario Matematico dell'Università di Padova*, Volume LXI, pp. 313-317 (1979)
- A variational approach to the polar decomposition theorem, *Rendiconti dell'Accademia Nazionale dei Lincei*, Volume LXVI (6), pp. 487-493 (1979) (with L.C. Martins)
- An elementary proof of the polar decomposition theorem, *The American Mathematical Monthly*, Volume 87, pp. 288-290 (1980) (with L.C. Martins)
- Some qualitative aspects in structural stability, *MECCANICA*, Volume XIV, pp. 163-167 (1979) (with C. Davini)
- Questions of uniqueness in finite elasticity, pp. 76-95 of *Trends and Applications of Pure Mathematics to Mechanics*, R.J. Knops Ed., Pitman, 1981 (with G. Capriz)
- Flexural instabilities of elastic rods, *Journal of Elasticity*, Volume 12, pp. 3-17 (1982)
- Materials with finite-dimensional structure, pp. 255-268 of *Mechanics of Structured Media - Part A*, A.P.S. Selvadurai Ed., Elsevier 1981 (with G. Capriz)
- Materials with spherical structure, *Archive for Rational Mechanics and Analysis*, Volume 75, pp. 269-279 (1981) (with G. Capriz)
- On balance equations for materials with affine structure, *MECCANICA*, Volume XVII, pp. 80-84 (1982) (with G. Capriz and W.O. Williams)
- Is there a critical void fraction for the yield stress of metals?, *International Journal of Mechanical Sciences*, Volume 24, pp. 741-747 (1982) (with C. Davini)
- Duality and stability questions for the linearized traction problem with live loads in elasticity, pp. 70-78 of *Stability in the Mechanics of Continua*, F.H. Schroeder Ed., Springer-Verlag Berlin Heidelberg 1982 (with G. Capriz)
- St.Venant formulae for generalized St.Venant problems, *Archive for Rational Mechanics and Analysis*, Volume 81, pp. 13-20 (1983)
- Il problema di trazione con carichi vivi in elasticità: primi risultati per il problema linearizzato, pp. 48-56 of *Onde e Stabilità nei Mezzi Continui*, A.M. Anile, S. Motta and S. Pluchino Ed.s, Quaderni G.N.F.M., Catania 1982

- A generalization of Signorini's perturbation method suggested by two problems of Grioli, *Rendiconti del Seminario Matematico dell'Università di Padova*, Volume 68, pp. 149-162 (1982) (with G. Capriz)
- Structured continua from a Lagrangian point of view, *Annali di Matematica Pura ed Applicata (IV)*, Volume CXXXV, pp. 1-25 (1983) (with G. Capriz)
- Posizione singolare della flessione e taglio tra le soluzioni del problema di St. Venant, pp. 43-52 of *Atti del VI Congresso Nazionale di Meccanica Teorica ed Applicata (Genova, 1982)*, Volume II (with S. Bennati)
- Internal constraints, Appendix 3A, pp. 159-170 of *C. Truesdell's Rational Thermodynamics*, 2nd Edition, Springer-Verlag New York 1984 (with G. Capriz)
- Discontinuous energy minimizers in nonlinear elastostatics: an example of J. Ball revisited, *Journal of Elasticity*, Volume 16, pp. 75-96 (1986) (with G. Vergara Caffarelli and E.G. Virga)
- On rate-type viscoelasticity and the second law of thermodynamics, *International Journal of Non-Linear Mechanics*, Volume 19, pp. 545-564 (1984) (with I. Suliciu)
- Materiali elastici approssimativamente vincolati, *Rendiconti del Seminario Matematico dell'Università di Padova*, Volume 73, pp. 1-19 (1985) (with S. Marzano)
- On a class of live traction problems in elasticity, pp. 291-304 of *Trends and Applications of Pure Mathematics to Mechanics*, P.G. Ciarlet and M. Roseau Ed.s, *Lecture Notes in Physics*, Springer-Verlag Berlin-Heidelberg-New York-Tokyo 1984 (with G. Vergara Caffarelli)
- Una formula di Green per il problema di carichi vivi dell'elastostatica linearizzata, pp. 1-10 of *Atti del VII Congresso Nazionale di Meccanica Teorica ed Applicata (Trieste, 1984)*, Volume II (with G. Vergara Caffarelli and E.G. Virga)
- Formulazioni alternative del vincolo di rigidità sulle deformazioni di materiali elastici, pp. 131-141 of *Atti del VII Congresso Nazionale di Meccanica Teorica ed Applicata (Trieste, 1984)*, Volume II (with S. Marzano)
- The role of ellipticity and normality assumptions in formulating live-boundary conditions in elasticity, *Quarterly of Applied Mathematics*, Volume 44, pp. 659-664 (1987) (with G. Vergara Caffarelli and E.G. Virga)
- Independence of Poisson's ratio in classical elastostatics with generalized boundary condition, *Journal of Elasticity*, Volume 16, pp. 323-331 (1985) (with R. Sbrulati)
- Problemi matematici nuovi in elasticità linearizzata, *Atti del III Congresso U.M.I. su "Insegnamento e Ricerca Matematica nelle Facoltà di Ingegneria"* (Napoli, 1984), *Suppl. Notiziario della Unione Matematica Italiana*, n.1, 1986
- Cavitation and phase transition of hyperelastic fluids, *Archive for Rational Mechanics and Analysis*, Volume 92, pp. 121-136 (1986) (with G. Vergara Caffarelli and E.G. Virga). Reprinted in *Analysis and Thermomechanics*, W. Noll's Anniversary Volume, B.D. Coleman, M. Feinberg & J. Serrin Ed.s, Springer-Verlag: Berlin Heidelberg, 1987
- Discontinuous displacements in elasticity, pp. 151-163 of *Contributi del Centro Linceo Interdisciplinare di Scienze Matematiche e Loro Applicazioni N.76*, Meeting on: *Finite Thermoelasticity (Roma, 1985)*. *Accademia Nazionale dei Lincei*, Roma 1986 (with W. Noll)
- The Piola-Kirchhoff stress may depend linearly on the deformation gradient, *Journal of Elasticity*, Volume 17, pp. 183-187 (1987)
- On the vanishing of the additive measures of strain and rotation for finite deformations, *Journal of Elasticity*, Volume 17, pp. 189-193 (1987) (with L.C. Martins and R.F. Oliveira)
- Transversely isotropic elasticity tensors, *Proceedings of the Royal Society of London A411*, pp. 85-93 (1987) (with E.G. Virga)
- Restrizioni costitutive per materiali elastici lineari trasversalmente isotropi, pp. 465-470 of *Atti dell'VIII Congresso Nazionale di Meccanica Teorica ed Applicata (Torino, 1986)*, Volume II (with A. Campanella and E.G. Virga)

- Sulle classi funzionali in cui le soluzioni di Saint-Venant sono minimi energetici, pp. 707-712 of *Atti dell'VIII Congresso Nazionale di Meccanica Teorica ed Applicata* (Torino, 1986), Volume II (with R. Sburlati)
- A variational approach to live loadings in finite elasticity, *Journal of Elasticity*, Volume 19, pp. 25-36 (1988)
- Sull'equilibrio di un involucro elastico pieno di gas. Nota I, *Atti della Accademia Nazionale dei Lincei, Rend. Fis.* (8), LXXXI, pp. 287-292 (1987); Nota II, *ibidem*, pp. 373-378 (1987) (with E.G. Virga)
- *Statica*, intended for the *Dizionario delle Scienze Fisiche*, Istituto della ENCICLOPEDIA ITALIANA fondata da G. Treccani, Roma 1987, unpublished.
- Materials with elastic range: a theory with a view toward applications. Part I, *Archive for Rational Mechanics and Analysis*, Volume 102, pp. 23-43 (1988) (with M. Lucchesi)
- Materials with elastic range and the possibility of stress oscillations in pure shear, pp. 71-80 of *Proceedings of the International Conference on Computational Plasticity: Models, Software & Applications*, Barcelona, 6-10 April 1987. D.R.J. Owen, E. Hinton & E. Oñate Ed.s, Pineridge Press: Swansea 1987 (with M. Lucchesi)
- An exact derivation of the thin plate equation, *Journal of Elasticity*, Volume 22, pp. 121-133 (1989)
- A concise proof of the representation theorem for linear isotropic tensor-valued mappings of a skew argument, *Journal of Elasticity*, Volume 21, pp. 317-320 (1989) (with Guo Zhong-Heng)
- A duality proof of the stress-strain relations of isotropic, linear microelasticity, (in Chinese) *Acta Mechanica Sinica*, Volume 21, pp. 58-64 (1989) (with Guo Zhong-Heng)
- Load symmetry and energy minimization in Saint-Venant's problem, *Mechanics Research Communications*, Volume 14, pp. 387-393 (1987)
- Equilibrium of an elastic spherical cap pulled at the rim, *SIAM Journal on Mathematical Analysis*, Volume 20, pp. 643-663 (1989) (with M. Rosati, A. Schiaffino, and V. Valente)
- Deformazioni e sforzi in un continuo in termini di trasformazioni di coordinate, *Atti del Seminario Matematico e Fisico dell'Università di Modena*, Volume XXXVII, pp. 403-418 (1989) (with F. Davì)
- Constraint manifolds for isotropic solids, *Archive for Rational Mechanics and Analysis*, Volume 105, pp. 105-121 (1989) (with M. Vianello)
- On the choices of convected derivatives and hardening rules in modelling plastic flow of metals, pp. 94-96 of *Proceedings Xth International Congress on Rheology*, Volume II, Sidney, 14-19 August 1988, P.H.T. Uhlherr Ed., ASR: 1988 (with M. Lucchesi and A. Pagni)
- Constrained elasticity, *Atti della Accademia Nazionale dei Lincei, Rend. Mat.*, s. 9, Volume 1, pp. 341-350 (1990)
- Materials with elastic range: a theory with a view toward applications. Part II, *Archive for Rational Mechanics and Analysis*, Volume 110, pp. 9-42 (1990) (with M. Lucchesi)
- Surface interaction potentials in elasticity, *Archive for Rational Mechanics and Analysis*, Volume 109, pp. 343-383 (1990) (with G. Vergara Caffarelli)
- Sull'equivalenza di alcuni postulati di dissipazione in teoria classica della plasticità, pp. 121-123 of *Atti del IX Congresso Nazionale di Meccanica Teorica ed Applicata* (Bari, 1988), Volume I (with M. Lucchesi)
- Polyconvex energies and symmetry requirements, *Journal of Elasticity*, Volume 26, pp. 223-237 (1991)
- On the local measure of mean rotation in continuum mechanics, *Journal of Elasticity*, Volume 27, pp. 267-279 (1992) (with L.C. Martins)
- The representation problem of constrained linear elasticity, *Journal of Elasticity*, Volume 28, pp. 271-276 (1992) (with M. Vianello)

- Il criterio di snervamento della sottoenergia, pp. 559-568 of G. Ceradini's Anniversary Volume, Tip. ESAGRAFICA: Roma 1988
- Equivalent dissipation postulates in classical plasticity, *MECCANICA*, Volume 25, pp. 26-31 (1990) (with M. Lucchesi)
- Materials with elastic range: a theory with a view toward applications. Part III. Approximate Constitutive Relations, *Archive for Rational Mechanics and Analysis*, Volume 117, pp. 53-96 (1992) (with M. Lucchesi and D.R. Owen)
- On the constitutive equations of elastic-plastic materials when the elastic deformation and its time rate are small, pp. 315-318 of 1989 *Advances in Plasticity*, Proceedings of Plasticity '89, Mie University (Japan), Jul 31- Aug 4 1989, A.S. Kahn & M. Tokuda Ed.s, Pergamon Press 1989 (with M. Lucchesi)
- A hyperbolic theory for the evolution of plane curves, *SIAM Journal on Mathematical Analysis*, Volume 22, pp. 575-586 (1991) (with M.E. Gurtin)
- Some remarks on the paper "Material objectivity in an experimentally based incremental theory of large finite plastic strain", by J.F. Bell, unpublished (1989)
- Plate theory as an exact consequence of three-dimensional linear elasticity, *European Journal of Mechanics, A/Solids*, Volume 10, pp. 485-516 (1991) (with M. Lembo)
- On energy-growth conditions in elasticity, *Rendiconti del Seminario Matematico dell'Università e del Politecnico di Torino*, pp. 137-144 of Special Issue 1989, *Nonlinear PDE's*
- Extreme elastic deformations, *Archive for Rational Mechanics and Analysis*, Volume 115, pp. 311-328 (1991) (with G. Vergara Caffarelli)
- Constraint and scaling methods to derive shell theory from three-dimensional elasticity. *Rivista Matematica dell'Università di Parma*, Volume 16, pp. 73-83 (1990)
- Hyperbolic evolution of phase interfaces, pp. 339-348 of Proceedings of the V International Meeting on Waves and Stability in Continuous Media, Sorrento, 9-14 October 1989. S. Rionero Ed., World Scientific: Singapore New Jersey London Hong Kong 1991
- Dinamica lineare dei gusci elastici sottili, pp. 121-123 of *Atti del X Congresso Nazionale di Meccanica Teorica ed Applicata* (Pisa, 1990), Volume I (with M. Lembo)
- A regularized equation for anisotropic motion-by-curvature, *SIAM Journal of Applied Mathematics*, Volume 52, pp. 1111-1119 (1992) (with A. Di Carlo and M.E. Gurtin)
- Internal constraints and linear constitutive relations for transversely isotropic materials, *Rendiconti Matematici dell'Accademia Nazionale dei Lincei*, s. 9, Volume 2, pp. 241-248 (1991) (with M. Vianello)
- On the characterization of plastic loading in the theory of materials with elastic range, pp. 331-334 of *Anisotropy and Localization of Plastic Deformation*, Proceedings of "Plasticity '91: the Third International Symposium on Plasticity and its Current Applications", Grenoble, 12-16 August, 1991. J.-P. Boehler & A.S. Khan Eds., Elsevier Applied Science 1991 (with M. Lucchesi)
- On the formulation of mechanical balance laws for structured continua, *Zeitschrift für angewandte Mathematik und Physik*, Volume 43, pp. 181-190 (1992) (with M.E. Gurtin)
- Materials with elastic range and plastic change of volume, *Journal of Plasticity*, Volume 9, pp. 35-49 (1993) (with M. Lucchesi, C. Padovani and A. Pagni)
- Equilibrium phases and layered phase mixtures in elasticity, *Mathematical Models and Methods in Applied Sciences*, Volume 2, pp. 143-166 (1992) (with G. Vergara Caffarelli)
- Some remarks on one-dimensional models of wave motion in elastic rods, *Le Matematiche*, Volume 46, pp. 303-310 (1991)
- Elastic unloading, neutral loading, and plastic loading in the theory of materials with elastic range, *Journal of Plasticity*, Volume 11, pp. 1-14 (1995) (with M. Lucchesi)

- On the derivation of the microforce balance law for structured continua, pp. 87-95 of *Advances in Modern Continuum Dynamics*, Proceedings of the Elba Conference in Memory of A. Signorini, 6-11 June, 1991. G. Ferrarese Ed., Pitagora Editrice: Bologna 1993
- Some remarks on order, orientation, and energy in liquid crystals, *Rendiconti di Matematica*, Volume XLI-Suppl., pp. 227-233 (1992)
- Linearization of response mappings in constrained elasticity, *Journal of Elasticity*, Volume 34, pp. 185-189 (1994) (with M. Vianello)
- On radial growth in crystallization theories of hyperbolic nature, pp. 150-167 of *Motion by Mean Curvature and Related Topics*, Proceedings of the International Conference held in Trento, July 20-24, 1992. G. Buttazzo & A. Visintin Ed.s, de Gruyter: Berlin · New York 1994 (with G. Vergara Caffarelli)
- The equations of Reissner-Mindlin plates obtained by the method of internal constraints, *MECCANICA*, Volume 29, pp. 143-157 (1994) (with P. Nardinocchi)
- Mohr's arbelos, *MECCANICA*, Volume 30, pp. 417-424 (1995) (con P. Bisegna)
- Problemi matematici nella teoria costitutiva dell'elasticità finita, *Rendiconti del Seminario Matematico dell'Università e del Politecnico di Torino*, Volume 53 (1), pp. 1-12 (1995) (uncorrected galley proofs of the manuscript were printed in Volume 51 (2), pp. 93-104 (1993))
- Inertia and invariance, *Annali di Matematica Pura e Applicata (IV)*, Volume CLXXII, pp. 103-124 (1997)
- Scalings and constraints in the mechanics of linearly elastic structures, unpublished (1995)
- Deformation processes with small elastic stretching for materials capable of plastic volume changes, to appear in *Plasticity '93*, Baltimore, July 1993 (with M. Lucchesi, C. Padovani, and A. Pagni)
- Null lagrangians in linear elasticity, *Mathematical Models and Methods in Applied Sciences*, Volume 5, pp. 415-427 (1995) (with M.R. Lancia and G. Vergara Caffarelli)
- On the continuum theory of deformable ferromagnetic solids, *Archive for Rational Mechanics and Analysis*, Volume 136, pp. 201-233 (1996) (with A. DeSimone)
- Constraint groups, *Journal of Elasticity*, Volume 37, pp. 91-92 (1995) (with A. Danescu and M. Vianello)
- On the differentiability of local representations of isotropic constraints, in "Şuhubi and Continuum Mechanics", special issue of *Bulletin of the Technical University of Istanbul*, Volume 47, pp. 13-23 (1994) (with A. Danescu and M. Vianello)
- Inertial and self interactions in structured continua: liquid crystals and magnetostrictive solids, *MECCANICA*, Volume 30, pp. 629-640 (1995) (with A. DeSimone)
- Configurational forces and the basic laws for crack propagation, *Journal of the Mechanics and Physics of Solids*, Volume 44 (6), pp. 905-927 (1996) (with M.E. Gurtin)
- On configurational inertial forces at a phase interface, *Journal of Elasticity*, Volume 44, pp. 255-269 (1996) (with M.E. Gurtin)
- Centri di forza e oscillazioni di spessore nelle piastre, pp. 99-104 of *Atti del XII Congresso Nazionale di Meccanica Teorica ed Applicata (Napoli, 1995)*, Volume V (1995) (with A. DeSimone)
- Stabilità di mensole elastiche soggette a carichi con potenziale non convesso, pp. 305-310 of *Atti del XII Congresso Nazionale di Meccanica Teorica ed Applicata (Napoli, 1995)*, Volume V (1995) (with A. DeSimone)
- Old and new invariance methods in continuum mechanics, pp. 41-52 of *Modern Group Analysis VI*, Proceedings of the International Conference held in Johannesburg, January 15-20, 1996. N.H. Ibragimov & F.M. Mahomed Ed.s, New Age International Publishers: New Delhi 1997
- Pointwise balances and the construction of stress fields in dielectrics, *Mathematical Models and Methods in Applied Sciences*, Volume 7 (4), pp. 477-485 (1997) (with A. DeSimone)

- Gleanings of radial cavitation, *Journal of Elasticity*, Volume 44, pp. 183-192 (1996) (with M.R. Lancia and G. Vergara Caffarelli)
- Configurational forces and a constitutive theory for crack propagation that allows for kinking and curving, *Journal of the Mechanics and Physics of Solids*, Volume 46 (2), pp. 1-36 (1998) (with M.E. Gurtin)
- On the representation of the stored energy for elastic materials with full transverse response–symmetry, *Journal of Elasticity*, Volume 51 (2), pp. 167-176 (1998) (with F.P. Duda and L.C. Martins)
- Processi elastoplastici con piccola velocità deviatorica di deformazione elastica, pp. 157-160 of *Atti del XIII Congresso Nazionale di Meccanica Teorica ed Applicata* (Siena, 1997), Volume 3 (1997) (with M. Lucchesi, C. Padovani, and A. Pagni)
- Some recent results on Saint–Venant Problem, pp. 35-45 of *Atti dei Convegni Lincei N. 140, Giornata Lincea su “Il Problema di de Saint-Venant: Aspetti Teorici e Applicativi”* (Roma, 6 March 1997). *Accademia Nazionale dei Lincei, Roma 1998*
- On the representation of energy and momentum in elasticity, *Mathematical Methods and Models in Applied Sciences*, Volume 10 (2), pp. 203-216 (2000) (with S. Sellers and G. Vergara Caffarelli)
- The compatibility constraint in linear elasticity, *Journal of Elasticity*, Volume 59, pp. 393-398 (2000)
- Universal deformations for a class of compressible isotropic hyperelastic materials, *Journal of Elasticity*, Volume 52 (2), pp. 159-166 (1998/1999) (with G. Tomassetti)
- Piezoelectric plates with changing thickness, *Journal of Structural Control*, Volume 5 (2), pp. 73-86 (1998) (with V. Nicotra)
- Elasticity with live loads, pp. 127-142 of *Atti dei Convegni Lincei N.148, Giornata Lincea su “Interactions between Analysis and Mechanics. The Legacy of Gaetano Fichera”* (Roma, 22-23 April 1998). *Accademia Nazionale dei Lincei, Roma 1999*
- Shells with thickness distension, *International Journal of Solids and Structures*, Volume 38, pp. 1201-1225 (2001) (with A. DiCarlo and W.O. Williams)
- On internal constraints and the derivation of a linear plate theory, pp. 96-102 of *Trends in Applications of Mathematics to Mechanics, Proceedings of STAMM X* (Nice, May 25-29, 1998), G. Iooss, O. Guess, and A. Nouri Ed.s, Chapman&Hall/CRC: Boca Raton · London · New York · Washington, D.C. 2000
- Recent results in the theory of elastic plates, *Transport Theory and Statistical Physics* (Special Issue, J.J. Dornig Ed.) Volume 29 (1&2), pp. 217-224 (1999)
- Consequences of Ilyushin dissipation condition in elastoplasticity, pp. 159-163 of *Elasticity and Plasticity*, I.A. Kyiko, M. SH. Israilov, and G.L. Brovko Ed.s, Moscow University Press 2001 (with M. Lucchesi)
- On the dynamics of deformable ferromagnets. I. Global weak solutions for soft ferromagnets at rest, *Annali di Matematica Pura e Applicata (IV)*, Volume CLXXIX, pp. 331-360 (2001) (with M. Bertsch and V. Valente)
- Thickness waves in electroelastic plates, *Wave Motion*, Volume 34 (2), pp. 175-191 (2001) (with G. Tomassetti)
- Exact equilibrium solutions for linearly elastic plate-like bodies, *Journal of Elasticity*, Volume 56 (3), pp. 231-245 (1999) (with V. Nicotra and A. Tiero)
- On dissipation mechanisms in micromagnetics, *The European Physical Journal B*, Volume 19, pp. 417-424 (2001)
- Energy estimates in hierarchical plate theories, *Journal of Mathematical Analysis and Applications*, Volume 248, pp. 216-232 (2000) (with S. Carillo and G. Vergara Caffarelli)
- Un formato tipo lavori virtuali per la termodinamica dei processi omogenei, *Atti del XIV Congresso Nazionale di Meccanica Teorica ed Applicata* (Como, October 1999) (with A. Tiero)
- Second-order surface potentials in finite elasticity, pp. 19-38 of *Rational Continua, Classical and New*. M. Brocato and P. Podio-Guidugli (Ed.s), Springer, 2002 (with S. Carillo and G. Vergara Caffarelli)

- Second-gradient constraints in second-grade materials, pp. 200-206 of K. Wilmanski's 60th Anniversary Volume, Report 18, Weierstrass Institute for Applied Analysis and Stochastics, Berlin (2000) (with M. Lembo)
- Angle plates, *Journal of Elasticity*, Volume 63, pp. 19-53 (2001) (with P. Nardinocchi)
- Internal constraints, reactive stresses, and the Timoshenko beam theory, *Journal of Elasticity*, Volume 65, pp. 131-148 (2001) (with M. Lembo)
- Configurational balances via variational arguments, *Interfaces and Free Boundaries*, Volume 3, pp. 223-232 (2001)
- Le equazioni di evoluzione dei continui ferromagnetici, *Bollettino U.M.I.* (8) 4-B, pp. 31-44 (2001)
- Existence of global-in-time weak solutions to a modified Gilbert equation, *Nonlinear Analysis. Theory, Methods & Applications*, Volume 47, pp. 147-158 (2001) (with V. Valente)
- A primer in elasticity, *Journal of Elasticity*, Volume 58 (1), pp. 1-104 (2000)
- Modeling deformation effects on T_c in epitaxial films of $\text{La}_{1.9}\text{Sr}_{0.1}\text{CuO}_4$, *Physica C*, Volume 371/2, pp. 117-128 (2002) (with P. Cermelli)
- Configurational forces: are they needed?, *Mechanics Research Communications*, Volume 29, pp. 513-519 (2002)
- Whence the boundary conditions in modern continuum physics? Pp. 19-42 of *Atti dei Convegni Lincei N. 210*, Accademia dei Lincei, Roma 2004 (with G. Capriz)
- On the steady motions of a flat domain wall in a ferromagnet, *The European Physical Journal B*, Volume 26 (2), pp. 191-198 (2002) (with G. Tomassetti)
- Effect of strain-induced electronic topological transitions on the superconducting properties of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ thin films, *The European Physical Journal B*, Volume 26 (1), pp. 67-74 (2002) (with G.G.N. Angilella, G. Balestrino, P. Cermelli, and A.A. Varlamov)
- Analisi e progetto di strutture tensintegre. Un arco per Roma, l'industria delle costruzioni, NO. 359, pp. 72-74 (2001) (with A. Micheletti and S. Stucchi)
- The tensegrity arch at Tor Vergata: A gateway to the university campus and a full-scale experimental facility, *Revue Française de Génie Civil*, Volume 7 (3), pp. 267-273 (2003)
- Contact interactions, stress, and material symmetry, for nonsimple elastic materials, *Theoretical and Applied Mechanics*, Volume 28-29, pp. 261-276 (2002)
- A new quasilinear model for plate buckling, *Journal of Elasticity*, Volume 71, pp. 157-182 (2003)
- La scelta dei termini inerziali per i continui con microstruttura, *Rendiconti Lincei, Serie IX*, Volume XIV (4), pp. 319-326 (2003)
- Levinson-type benchmarks for slide-clamped and elastically supported plates, *Journal of Elasticity*, Volume 73 (1-3), pp. 211-220 (2003) (with P. Nardinocchi)
- On the evolution of domain walls in hard ferromagnets, *SIAM Journal of Applied Mathematics*, Volume 64 (6), pp. 1887-1906 (2004) (with G. Tomassetti)
- Peeling tapes, pp. 253-260 of *Mechanics of Material Forces*, P. Steinmann and G.A. Maugin (Ed.s), vol. 11 of *Advances in Mechanics and Mathematics*, Springer, 2005
- On contact powers and null lagrangian fluxes, pp. 147-156 of *New Trends in Mathematical Physics*, P. Fergola et al. Ed.s, World Scientific 2004 (with G. Vergara Caffarelli)
- The Tensegrity Footbridge at TorVergata University in Rome, Footbridge 2005, University Iuav of Venice (Italy) and OTUA (France), Venezia (Italia) (with A. Micheletti, V. Nicotra and S. Stucchi)
- Examples of concentrated contact interactions in simple bodies, *Journal of Elasticity*, Volume 75, pp. 167-186 (2004)
- How (and why) twisting cycles make individual MWCNTs stiffer, *Proc. IWEPNM 2004*, AIP Conf. Proc. 723, Melville, NY, pp. 355358 (with A. DiCarlo, M. Monteferrante, V. Sansalone, and L. Teresi)

- *Meccanica dei Solidi*. In Treccani.it, L'ENCICLOPEDIA ITALIANA - VII Appendice (2006)
- On concentrated contact interactions, pp. 137-147 of *Progress in Nonlinear Differential Equations and their Applications*, Volume 68, Birkhäuser (2006)
- Le coperture del Teatro Marittimo a Villa Adriana, l'industria delle costruzioni, NO. 387, pp. 113-115 (2006) (with R. Capozza)
- Balancing the force that drives the peeling of an adhesive tape, *Il Nuovo Cimento*, Volume 121 B (5), pp. 531-543 (2006) (with N. Pede and G. Tomassetti)
- How to use reactive stresses to improve plate-theory approximations of the stress field in a linearly elastic plate-like body, *International Journal of Solids and Structures*, Volume 44 (5), pp. 1337-1369 (2007) (with M. Lembo)
- Marcus integration method for shearable plates, *Journal of Elasticity*, Volume 84, pp. 189-196 (2006) (with A. Tiero)
- Models of phase segregation and diffusion of atomic species on a lattice, *Ricerche di Matematica*, Volume 55 (1), pp. 105-118 (2006)
- On magnetization switching with nonstandard dissipation, *IEEE Transactions on Magnetics*, Volume 42 (11), pp. 3652-3656 (2006) (with G. Tomassetti)
- On a mathematical model of twisted multiwall carbon nanotubes, *Comm. SIMAI Congress*, DOI: 10.1685/CSC06166, ISSN 1827-9015, Vol. 2 (2007) (with A. DiCarlo and L. Teresi)
- The Reissner-Mindlin plate theory via Γ -convergence, *C.R. Acad. Sci. Paris, Ser. I* 343, pp. 437-440 (2006) (with R. Paroni and G. Tomassetti)
- A justification of the Reissner-Mindlin plate theory through variational convergence, *Analysis and Applications*, Volume 5 (2), pp. 165-182 (2007) (with R. Paroni and G. Tomassetti)
- Une approche formelle unifiée des theories classiques de plaques et poutres, *C.R. Acad. Sci. Paris, Ser. I* 343, pp. 675-678 (2006) (with B. Miara)
- Deduction by scaling: a unified approach to classic plate and rod theories. *Asymptotic Analysis*, Volume 51 (2), pp. 113-131 (2007) (with B. Miara)
- On structure thinness, mechanical and variational, pp. 227-242 of *Variational Formulations in Mechanics: Theory and Applications*, E. Taroco, E.A. de Souza Neto, and A.A. Novotny (Ed.s), CIMNE, 2007
- On the aggregation state of simple materials, pp. 159-168 of *Mathematical modeling of bodies with complicated bulk and boundary behavior*, M. Šilhavý Ed., Quaderni di Matematica, **20** (2008)
- Validation of classical beam and plate models by variational convergence, pp. 177-188 of *Relation of shell, plate, beam and 3D models*, Ed.s: G. Jaiani and P. Podio-Guidugli. IUTAM Bookseries, Volume 9, Springer, 2008
- Concepts in the mechanics of thin structures. Pp. 77-110 of *CISM Volume 503*, A. Morassi and R. Paroni (Eds.), Springer 2008
- A general linear theory of elastic plates and its variational validation. *Bollettino dell'Unione Matematica Italiana*, (9) **II** 2009, 321-341 (with D. Percivale)
- AFCs: active-stress vs active-strain modeling, pp. 37-48 of *Mechanics of Microstructured Solids 2. Cellular Materials, Fibre Reinforced Solids and Soft Tissues*, J.-F. Ganghoffer and F. Pastrone (Eds.), *Lecture Notes in Applied and Computational Mechanics*, Volume 50, Springer Berlin/Heidelberg, 2010 (with P. Nardinocchi)
- A virtual power format for thermomechanics. *Continuum Mechanics and Thermodynamics*, Volume 20 (8), pp. 479-487 (2009)
- A thermodynamically consistent theory of the ferro/paramagnetic transition. *Archive for Rational Mechanics and Analysis*, Volume 198, pp. 1057-1094 (2010) (with T. Roubicek and G. Tomassetti)
- Existence and uniqueness of a global-in-time solution to a phase segregation problem of the Allen-Cahn type. *Mathematical Models and Methods in Applied Sciences*, Volume 20 (4), pp. 519-541 (2010) (with P. Colli, G. Gilardi, and J. Sprekels)

- On (Andersen-)Parrinello-Rahman molecular dynamics, the related metadynamics, and the use of the Cauchy-Born rule. *Journal of Elasticity*, Volume 100, pp. 145-153 (2010)
- Concentrated actions on plane cuspidate bodies. *Journal of Elasticity*, Volume 106 (2), pp. 107-114 (2012) (with F. Schuricht)
- Concentrated contact interactions in cuspidate prismatic shells. *Archive of Applied Mechanics*, Volume 81, pp. 1487-505 (2011) (with. N. Chinchaladze, G. Jaiani, and B. Maistrenko)
- Hypertractions and hyperstresses convey the same mechanical information. *Continuum Mechanics and Thermodynamics*, Volume 22 (3), pp. 163-176 (2010) (with M. Vianello)
- Energy splitting theorems for materials with memory. *Journal of Elasticity*, Volume 101, pp. 59–67 (2010) (with A. Favata and G. Tomassetti)
- On shear and torsion factors in the theory of linearly elastic rods. *Journal of Elasticity*, Volume 99 (2), pp. 203-210 (2010) (with A. Favata and A. Micheletti)
- Global solution to a phase transition problem of the Allen-Cahn type. Pp. 104-110 of *Nonlinear Evolution Equations and Mathematical Modeling*, Proceedings of the RIMS Symposium held at the Research Institute for Mathematical Sciences, Kyoto University, on October 20-23, 2009, T. Aiki (ed.), Sūrikaiseikikenkyūsho Kōkyūroku, **1693**, Kyoto 2010 (with P. Colli, G. Gilardi, and J. Sprekels)
- A temperature-dependent phase segregation problem of the Allen-Cahn type. *Advances in Mathematical Sciences and Applications*, Volume 20, pp. 219-234 (2010) (with P. Colli, G. Gilardi, and J. Sprekels)
- Models of phase segregation of Allen-Cahn type, without and with temperature effects. Pp. 39-52 of "Evolution Equations and Materials with Memory", D. Andreucci et al. Ed.s, Roma, Editrice Università La Sapienza, 2011 (with P. Colli)
- A new CNT-oriented shell theory. *European Journal of Mechanics A/Solids*, Volume 35, pp. 75-96 (2012) (with A. Favata)
- On a nanoscopically-informed shell theory of single-wall carbon nanotubes. *European Journal of Mechanics A/Solids*, Volume 42, pp. 137-157 (2013) (with C. Bajaj and A. Favata)
- On microscopic and macroscopic notions of stress, pp. 279-285 of *Elasticity and Inelasticity*, Proceedings of "Problems of Mechanics of Deformable Bodies", Moscow, Jan 20-21 2011. Moscow University Press, 2011
- Well-posedness and long-time behavior for a nonstandard viscous Cahn-Hilliard system. *SIAM Journal of Applied Mathematics*, Volume 71, pp. 1849-1870 (2011) (with P. Colli, G. Gilardi, and J. Sprekels)
- An asymptotic analysis for a nonstandard Cahn-Hilliard system with viscosity. *Discrete and Continuous Dynamical Systems, Series S*, Volume 6 (2), pp. 353-368 (2012) (with P. Colli, G. Gilardi, and J. Sprekels)
- Some remarks prompted by a commentary due to Professors F. Dell'Isola and P. Seppecher. *Continuum Mechanics and Thermodynamics*, Volume 23 (5), pp. 479-481 (2011) (with M. Vianello)
- What shell theory fits carbon nanotubes? pp. 561-570 of *Shell-like Structures – Non-classical Theories and Applications*, Ed.s: H. Altenbach and V. Eremeyev, Springer-Verlag Berlin Heidelberg 2011 (with A. Favata)
- In-plane strain and stress fields in theories of shearable laminated plates subject to transverse loads, pp. 699-714 of *Shell-like Structures – Non-classical Theories and Applications*, Ed.s: H. Altenbach and V. Eremeyev, Springer-Verlag Berlin Heidelberg 2011 (with G. Formica and M. Lembo)
- Distributed optimal control of a nonstandard system of phase field equations. *Continuum Mechanics and Thermodynamics*, Volume 24, pp. 437-459 (2012) DOI 10.1007/s00161-011-0215-8 (with P. Colli, G. Gilardi, and J. Sprekels)

- On a stress-power based characterization of second-gradient elastic fluids. *Continuum Mechanics and Thermodynamics*, Volume 25 (2), pp. 399-421 (2013) (DOI 10.1007/s00161-012-0267-4 (with M. Vianello))
- On an innovative deployment concept for large space structures. *Proc. 42nd ICES - S. Diego, 2012* (with A. Donati, P.L. Ganga, M. Ghiozzi, A. Micheletti, L. Scolamiero, G. Tibert, and V. Zolesi)
- Global existence for a strongly coupled Cahn-Hilliard system with viscosity. *Bollettino Unione Matematica Italiana*, Volume 5 (9), pp. 495-513 (2012) (with P. Colli, G. Gilardi, and J. Sprekels)
- Explicit and exact Levinson-type solutions for multilayered plates. *Archives of Mechanics*, Volume 65 (5), pp. 1-22 (2013) (with G. Formica and M. Lembo)
- Dissipative entropy makes the heat equation hyperbolic. *AAPP | Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali*, Volume 91, Suppl. 1, A15 1-8 (2013)
- Global existence and uniqueness for a singular/degenerate Cahn-Hilliard system with viscosity. *Journal of Differential Equations*, 2013, Volume 254, pp. 4217-4244 (with P. Colli, G. Gilardi, and J. Sprekels)
- On energy and entropy influxes in the Green-Naghdi Type III Theory of heat conduction. *Proceedings of the Royal Society of London A*, 2013. **469**, 2152, 20120705 (with S. Bargmann and A. Favata)
- A shell theory for chiral single-wall carbon nanotubes. *European Journal of Mechanics A/Solids*, Volume 45, pp. 198-210 (2014) (with A. Favata)
- Continuous dependence for a nonstandard Cahn-Hilliard system with nonlinear atom mobility. *Rend. Sem. Mat. Univ. Politec. Torino*, Volume 70, 1 (2012), pp. 27-52 (with P. Colli, G. Gilardi, and J. Sprekels)
- A revised exposition of the Green-Naghdi theory of heat propagation. *Journal of Elasticity*, 2014, Volume 114, pp. 143-154, DOI 10.1007/s10659-013-9431-8 (with S. Bargmann and A. Favata)
- Analysis of a time discretization scheme for a nonstandard viscous Cahn-Hilliard system. *ESAIM Mathematical Modelling and Numerical Analysis*, 2014, Volume 48, pp. 1061-1087 (with P. Colli, G. Gilardi, P. Krejčí, and J. Sprekels)
- On variational dimension reduction in structure mechanics. *Journal of Elasticity*, Volume 118 (1), pp. 1-13 (2015) published on line on 07 March 2014 (with R. Paroni)
- An improved theory of laminated Reissner-Mindlin plates. *Internal Journal of Solids and Structures*, Volume 51, pp. 1562-1575 (2014) (with G. Formica and M. Lembo)
- A nonlinear theory of prestressed elastic stick-and-spring structures. *Internal Journal of Engineering Sciences*, Volume 80, pp. 4-20 (2014) (with A. Favata and A. Micheletti)
- On energy and entropy inflows in the theory of heat conduction. *Archives of Mechanics*, Volume 85 (3), pp. 347-353 (2015), DOI 10.1007/s00419-014-0936-9
- On the validation of theories of thin elastic structures. *MECCANICA*, Volume 49 (6), pp. 1343-1352 (2014)
- A shell theory for CNTs of arbitrary chirality. Pp. 155-167 of *Shell and Membrane Theories in Mechanics and Biology: From Macro- to Nanoscale Structures*, Ed.s: H. Altenbach and G. Mikhasev, Volume 45 of Series: *Advanced Structured Materials*, Springer (2015) (with A. Favata)
- Cauchy's construction for flat complex bodies. *Journal of Elasticity*, Volume 118 (1), pp. 101-107 (2015) DOI 10.1007/s10659-014-9481-6, published on line 30 May 2014 Volume 118, Issue 1, pp 101-107
- Geometry and self-stress of single-wall carbon nanotubes and graphene via a discrete model based on a 2nd-generation REBO potential. *Journal of Elasticity*, Volume 125, pp. 1-37 (2016): DOI 10.1007/s10659-015-9568-8 (with A. Favata, A. Micheletti, and N. Pugno)

- Six Lectures in the Mechanics of Elastic Structures. Pp. 227-264 of *Shell-like Structures. Advanced Theories and Applications*, Ed.s H. Altenbach and V. Eremeyev, Volume 572 of Series: CISM International Centre for Mechanical Sciences, Springer (2017)
- A justification of the Timoshenko beam model through Γ -convergence. *Analysis and Applications*, Volume 15 (20), 261-277 (2017) (with L. Falach and R. Paroni)
- A notion of nonlocal Gaussian curvature. *Rendiconti Lincei: Matematica e Applicazioni*, Volume 27, pp. 181-193 (2016)
- For a statistical interpretation of Helmholtz' thermal displacement. *Continuum Mechanics and Thermodynamics*, Volume 28 (6), pp. 1705-1709 DOI 10.1007/s00161-016-0505-2 (2016)
- How graphene flexes and stretches under concomitant bending couples and tractions. *MECCANICA*, Volume 52 (7), pp. 1601-1624 (2017) (with A. Favata, A. Micheletti, and N. Pugno)
- On the impulsive dynamics of T3 tensegrity chains. *MECCANICA*, Volume 51 (11), pp. 2763-2776 (2016) (with C. Davini and A. Micheletti)
- Tensegrity rings for deployable space antennas: concept, design, analysis, and prototype testing. Pp. 269-304 of *Variational Analysis and Aerospace Engineering. Mathematical Challenges for the Aerospace of the Future*, Ed.s Frediani, A., Mohammadi, B., Pironneau, O., Cipolla, V. Springer (2016) (with P.L. Ganga, A. Micheletti, L. Scolamiero, G. Tiberti, and V. Zolesi)
- On the modeling of transport phenomena in continuum and statistical mechanics. *Discrete and Continuous Dynamical Systems - Series S*, Volume 10 (6), pp. 1393-1411 (2017)
- On Professor Grioli's last riddle: What boundary and initial conditions make sense for microstructured continua? *Rendiconti Lincei: Matematica e Applicazioni*, Volume 29 (1), pp. 85-92 (2018) DOI: 10.4171/RLM/794
- On the nonlocal curvatures of surfaces with or without boundary. *Communications of Pure and Applied Analysis*, Volume 17 (2), pp. 709-727 (2018) (with R. Paroni and B. Seguin)
- Continuum balances from extended Hamiltonian dynamics. *The Journal of Chemical Physics*, Volume 146 (22), 224102 (1-9) (2017) (with G.G. Giusteri and E. Fried)
- Perfusion and absorption in a porous matrix. Pp. 312-320 of *Proc. 6th Biot Conference on Poromechanics, A tribute to Olivier Coussy, July 9-13, 2017, Paris (France)* (with A. DiCarlo, S. Naili, and V. Sansalone) (2017)
- On the mechanical modeling of matter, molecular and continuum. *J. Elasticity - Published online: 12 Dec 2018*
- The virial theorem: a pocket primer. *J. Elasticity - Published online: 18 December 2018* DOI: 10.1007/s10659-018-09716-6
- Scientific life and works of Walter Noll. *J. Elasticity - Published on line: 27 February 2019*
- Un modello cinematico del piede umano e i disegni anatomici di Leonardo. To appear in *Atti del Convegno Linceo "Leonardo. Il Corpo dell'Uomo"*, 2019 (with M. Brocato)

Unpublished Papers:

- The inertial forces at a crack tip, 1996
- On the notion(s) of material symmetry, 2002
- Minimizing high-order exchange energies, 2002 (with V. Valente)
- Rational rheology, 2010

Posters:

- How (and why) twisting cycles make individual MWCNTs stiffer, Euroconference “Molecular Nanostructures”, Kirchberg, Austria, March 2004 (with A. DiCarlo, M. Monteferrante, V. Sansalone, and L. Teresi)
- Tensegrity modules for cable-strut systems, IASS Symposium “Shell and Spatial Structures from Models to Realization”, Montpellier, France, September 2004 (with A. Micheletti and V. Nicotra)
- Nanoscale mechanical devices incorporating MWCNTs: a twisting riddle, 6th International Conference on Nanotechnology in Carbon, Batz-sur-Mer, France, Oct 2004 (with A. DiCarlo, M. Monteferrante, V. Sansalone, and L. Teresi)
- A comprehensive meso-mechanical theory of twisted MWCNTs, Euroconference “Molecular Nanostructures”, Kirchberg, Austria, March 2006 (with A. DiCarlo and L. Teresi)
- A survey of NEMS incorporating multiwall carbon nanotubes: fabrication, performance assessment, mathematical modelling, Nanoscience & Nanotechnology, Roma, Nov 2006 (with A. DiCarlo and L. Teresi)

Books:

- *Lezioni sulla Teoria Lineare dei Gusci Elastici Sottili*. Masson, 1991
- *A Primer in Elasticity*. Kluwer Academic Publishers, 2000
- *Lezioni di Scienza delle Costruzioni. Parte I. Travi e Travature*. Aracne Editrice, Roma, 2008
- *Lezioni di Scienza delle Costruzioni. Parte II. Stato di Sforzo nelle Travi*. Aracne Editrice, Roma, 2008
- *Lezioni di Scienza delle Costruzioni. Seconda edizione riveduta, corretta e ampliata, con 340 figure e 95 esercizi*. Aracne Editrice, Roma, 2009
- *Elasticity for Geotechnicians. A Modern Exposition of Kelvin, Boussinesq, Flamant, Cerruti, Melan, and Mindlin Problems*. Springer, 2013 (with A. Favata) <http://dx.doi.org/10.1007/978-3-319-01258-2>
- *Lezioni di Statica*. Aracne Editrice, Roma, 2014
- *Continuum Thermodynamics*. SISSA Springer Series, Vol. 1, Springer Nature, 2019 ISBN 978-3-030-11156-4

Edited Books:

- *Fundamental Contributions to the Continuum Theory of Evolving Phase Interfaces in Solids*. Ed.s: J.M. Ball, D. Kinderlehrer, P. Podio-Guidugli, and M. Slemrod. Springer-Verlag Berlin Heidelberg New York, 1999
- *Rational Continua, Classical and New*. Ed.s: M. Brocato and P. Podio-Guidugli. Springer Milano Berlin Heidelberg New York Barcelona Hong Kong London Paris Singapore Tokyo, 2002
- *Whence the boundary conditions in modern continuum physics?* Ed.s: G. Capriz and P. Podio-Guidugli. Atti dei Convegni Lincei N. 210, Roma, 2004 (Proceedings of the international meeting held at the Accademia Nazionale dei Lincei, Rome, on Oct 14-16 2002)
- *Relations of shell, plate, beam and 3D models*. Ed.s: G. Jaiani and P. Podio-Guidugli. IUTAM Bookseries, Volume 9, Springer, 2008 (Proceedings of the IUTAM Symposium held at Tbilisi, Georgia, on April 23-27 April 2007)

Lecture and Course Notes:

- Appunti di Meccanica dei Fluidi Newtoniani (part of a one-year course of Rational Mechanics given at the Università di Pisa, 1971-1975)

- Appunti di Scienza delle Costruzioni (a one-year course of Strength of Materials given at the Università di Ancona, 1975-1977, and Pisa, 1977-1983)
- Topics in Linear Elasticity (a series of seven lectures given at the Autumn Course in Applications of Analysis to Mechanics, International Center for Theoretical Physics, Trieste, 1976)
- *Seminari di Elasticità Lineare* (a series of lectures given by G. Del Piero, M.E. Gurtin and P. Podio-Guidugli at the Scuola Estiva di Fisica Matematica, Bari, 1976; notes written by G. DP and P. P-G, published by Editrice Tecnico Scientifica, Pisa, 1978)
- *Elementi di Meccanica dei Continui ed Elasticità* (a series of fifteen lectures given at the Scuola Estiva di Fisica Matematica, Catania, 1977; notes written with the assistance of F. Andreussi, published by Editrice Tecnico Scientifica, Pisa, 1978)
- Lezioni di Elasticità (a one-year course in Mathematical Physics given at the Università di Pisa, 1976-1977)
- Meccanica dei Sistemi Dinamici Finiti (a one-year course in Mathematical Physics given at the Università di Pisa, 1978-1979)
- Piastre e Gusci (a one-year course in Selected Topics of Structural Mechanics given at the Università di Roma TorVergata, 1987-1988)
- *Argomenti Costitutivi in Elasticità* (a series of twelve lectures given at the Scuola Estiva di Fisica Matematica, Ravello, 1993; notes written with the assistance of P. Nardinocchi and L. Teresi, Quaderni del C.N.R., G.N.F.M., published by Scuola Tipolitografica "Istituto Anselmi", Marigliano (Napoli), 1994)

Roma, 23 July 2019