

Curriculum Vitae of Professor Patrizia Daniele

General Info

- Date and place of birth: April 14th, 1973, Augusta (SR) - Italy
- Address: Department of Mathematics and Computer Sciences
University of Catania, Viale A. Doria, 6 – 95125 Catania
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Education

- Degree in Mathematics, University of Catania, July 15th, 1995. Thesis: “Variational Inequalities and Duality”
- PhD in Applied Mathematics and Computer Sciences, University of Naples “Federico II”, March 20th, 2000. Thesis: “Variational Inequalities and Duality. Applications to Equilibrium Problems”

Positions

- **Full Professor** in Operations Research, University of Catania, from October 1st, 2017.
- **Associate Professor** in Operations Research, University of Catania, from January 18th, 2005.
- **President of the Master of Science in Mathematics** for the A.Ys. 2015/20, resigned on January 2, 2016;
- Member of the **Presidio di Qualità of the University of Catania** from December 29, 2015;
- **Visiting Scholar** for the spring semester from March 1th to May 31th, 2006 at the Division of Engineering and Applied Science (DEAS), Harvard University.
- **Researcher** MAT/09 (Operations Research), University of Catania, from October 1st, 2001.
- Winner of a national competition for an “**Assegno di Ricerca**” on “Calculus of the Variations and Applications to Equilibrium Problems”, Faculty of Mathematical, Physical, and Natural Sciences, University of Catania, November 2nd, 1999 – September 30th, 2001.
- **Professional Adviser** for the study of Lagrange Theory, Duality Theory, Minimax Theory related to more general dual formulations of the traffic equilibrium problem, University of Pisa, July-November 1995.

National Certifications

- Abilitazione Scientifica Nazionale for full professorship in 01/A6 – Operational Research (December 20, 2013).
- Abilitazione Scientifica Nazionale for full professorship in 13/D4 – Mathematical Methods in Economics and Actuarial and Financial Sciences (February 5, 2014).

National and International Awards

- Award “Giacchino Iapichino” for the year 1996, Accademia Nazionale dei Lincei.
- Rockefeller Foundation Bellagio Center Fellowship, 2003.
- Visiting Scholarship during the Spring semester 2006 at the Division of Engineering and Applied Science (DEAS), Harvard University.

Organizing Activity

- Member of the Organizing Committee of the International Workshop “**Equilibrium Problems and Variational Models**”, Taormina, December 3-5, 1998.
- Member of the Organizing Committee of the International School of Mathematics “G. Stampacchia” 32nd Workshop “**Equilibrium Problems and Variational Models**”, Erice, June 23 – July 2, 2000.
- Member of the Organizing Committee of the First Joint Meeting AMS-UMI Special Sessions: “**Nonlinear Elliptic and Parabolic Equations and Systems**” and “**Variational Analysis and Applications**”, Pisa, June 12-16, 2002.
- Member of the Organizing Committee of the International Conference on “**Variational Analysis and Applications**”, Erice, June 20-30, 2003.
- Organizer of the Minisymposium “**Equilibrium Problems and Variational Models**” during the 5th International Congress on Industrial and Applied Mathematics, Sydney, July 7-11, 2003.
- Member of the Organizing Committee of the Workshop on “**Equazioni a Derivate Parziali: Aspetti Metodologici, Modellistica, Applicazioni**”, Ragusa Ibla, June 29 - July 2, 2005.
- Member of the Organizing Committee of the International School of Mathematics “G. Stampacchia” 44th Workshop on “**Variational Analysis and Partial Differential Equations**”, Erice, July 5-14, 2006.
- Co-organizer of the Workshop “**Complex Networks – Equilibrium and Vulnerability Analysis with Applications**”, Catania, March 10-12, 2008, together with Professor Anna Nagurney.

- Member of the Organizing Committee of the International School of Mathematics “G. Stampacchia” 51st Workshop on “**Variational Analysis and Applications**”, Erice, May 9-17, 2009.
- Organizer of the session **Variational Inequalities and Applications to Economic Market Models**, XXIV EURO Conference, Lisbon, July 11-14, 2010.
- Member of the Organizing Committee of the **Fifth China-Italy Colloquium on Applied Mathematics CICAM5**, Acireale (CT), September 27-30, 2010.
- Co-organizer of the session “**Variational Inequality Problems and Equilibrium Problems**”, 41st Annual Conference AIRO, Villa San Giovanni, September 7-10, 2010, together with Dr. Laura Scrimali.
- Member of the Organizing Committee of the International School of Mathematics “G. Stampacchia” 58th Workshop on “**Variational Analysis and Applications**”, Erice, May 14-22, 2012.
- Organizer of the Special Session on **Variational Analysis and Equilibrium Problems**, 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, July 1-5, 2012.
- Organizer of the Special Session on **Equilibrium Problems: formulations and methodologies**, Mathematical Programming Symposium, Berlin, August 19-24, 2012.
- Co-organizer of the Special Session on “**Optima and Equilibria: Theory and Applications**”, 42nd Annual Conference AIRO, Vietri sul Mare, September 4-7, 2012, together with Professor Sofia Giuffrè.
- Co-organizer of the invited session “**Infinite-dimensional Duality and Applications to Continuous Optimization**”, EUROPT 2013, 11th EUROPT Workshop on Advances in Continuous Optimization, Florence, June 26-28, 2013, together with Professor Antonino Maugeri (University of Catania).
- Co-organizer of the stream “**Recent advances in variational inequalities and equilibrium problems with applications**”, EURO-INFORMS Joint International Meeting, Rome, July 1-4, 2013, together with Professor Monica Gabriela Cojocaru (University of Guelph, Canada).
- Organizer of the session on “**Complementarity and Variational Inequalities**” at ICCOPT 2013 Conference, 4th International Conference on Continuous Optimization, Lisbon, July 27 - August 1, 2013.
- Member of the organizing committee of the 18th European Conference on Mathematics for Industry – **ECMI 2014**, Taormina, June 9-13, 2014.
- Organizer of the mini-conference “**La Matematica: Presente e Futuro**”, in the occasion of the retirement of Professor Antonino Maugeri, Catania, June 5, 2014.

- Organizer of the minisymposium on “Recent Advances on Equilibrium Problems with Applications to Networks”, **ECMI 2014**, Taormina, June 9-13, 2014.
- Co-organizer, together with Sofia Giuffrè, of a session on “Variational Analysis and Applications to Equilibrium Problems” at the **10th AIMS Conference on Dynamical Systems, Differential Equations and Applications**, Madrid, July 7-11, 2014.
- Organizer of the special session “Equilibrium Models: Theoretical and Numerical Features”, **44th Annual Conference AIRO 2104**, Como, September 2-5, 2014.
- Organizer of the stream “Recent Advances in Dynamics of Variational Inequalities and Equilibrium Problems”, **EURO 2015**, Glasgow, July 12-15, 2015.
- Member of the Program Committee of the **2nd International Conference on Dynamics of Disasters**, Kalamata, Greece, June 29 – July 2, 2015.
- Co-director of the International Workshop “**Variational Analysis and Applications**”, Erice, August 28 – September 5, 2015, together with C. De Lellis, A. Maugeri, R.T. Rockafellar, M.Théra.
- Co-organizer of the workshop “**Variational Inequalities, Nash Equilibrium Problems and Applications**”, Reggio Calabria, September 24-25, 2015, together with S. Giuffrè and L. Scrimali.
- Organizer of the stream “Recent Advances in Dynamics of Variational Inequalities and Equilibrium Problems”, **EURO 2016**, Poznań, July 3-6, 2016.
- Co-organizer of the Special Session on “Variational Inequalities, Inverse Problems, and Applications”, **11th AIMS Conference on Dynamical Systems, Differential Equations and Applications**, Orlando, July 1-5, 2016, together with Baasansuren Jadamba and Akhtar A. Khan.
- Co-organizer of the workshop “**Variational Inequalities, Nash Equilibrium Problems and Applications**”, Catania, October 6-7, 2016, together with S. Battiato, G.M. Farinella, S. Giuffrè e L. Scrimali.
- Member of the Program Committee of the **6th International Conference on Operations Research and Enterprise Systems (ICORES)**, Porto, February 23-25, 2017;
- Member of the Program Committee of the **3rd International Conference on Dynamics of Disasters**, Kalamata, Greece, July 5 – 9, 2017;
- Member of the Program Committee of the **7th International Conference on Operations Research and Enterprise Systems (ICORES)**, Funchal, Madeira, January 24-26, 2018;
- Co-organizer of the workshop “**Variational Inequalities, Nash Equilibrium Problems and Applications**”, Reggio Calabria, March 8-9, 2018, together with S. Battiato, G.M. Farinella, S. Giuffrè, G. Lax, L. Scrimali;

- Co-organizer of the stream “**Variational Inequalities**”, EURO 2018, Valencia, July 8-11, 2018, together with L. Scrimali.
- Co-director of the International Workshop “**Variational Analysis and Applications**” (**VARANA 2018**), Erice, August 28 – September 5, 2018, together with H. Attouch, G. Buttazzo, A. Maugeri;
- Chair of the Program Committee of the International Conference on **Optimization and Decision Science (ODS2018)**, Taormina, September 10-13, 2018;
- Member of the Program Committee of the **8th International Conference on Operations Research and Enterprise Systems (ICORES)**, Prague, Czech Republic, February 19-21, 2019;
- Member of the Program Committee of the **30th European Conference on Operations Research (EURO 2019)**, Dublin, June 23-26, 2019;
- Member of the Program Committee of the **8th International Conference on Operations Research and Enterprise Systems (ICORES)**, Valletta, Malta, February 22-24, 2020e;
- Member of the Program Committee of **ODS2020 – Optimization and Decision Science**, Rome, September 8-11, 2020.

Other Scientific Activities

- Member of the **Presidio di Qualità of the University of Catania** from December 29, 2015.
- On February 5, 2014 Patrizia Daniele got the Abilitazione Scientifica Nazionale to full professorship in the field of Mathematical Methods of Economics and Actuarial and Financial Sciences.
- On December 20, 2013 Patrizia Daniele got the Abilitazione Scientifica Nazionale to full professorship in the field of Operations Research.
- Host of Professor Anna Nagurney, John F. Smith Memorial Professor of the University of Massachusetts at Amherst, during the Fulbright Senior Specialist Award in Business Administration at the University of Catania, March 5-19, 2008.
- Member of the Editorial Board of the Series “**New Dimensions in Networks**”, Edward Elgar Publishers Ltd., Editor: Prof. Anna Nagurney, University of Massachusetts.
- Member of the Editorial Board of **Optimization Letters**.
- Member of the Editorial Board of **Networks and Spatial Economics**.
- Member of the Editorial Board of **Journal of Applied and Numerical Optimization**.

- Member of the working group **EQUILIBRIUM MODELS in COMPLEX SYSTEMS (EMICS)**, coordinator Prof. Igor V. Konnov (<http://emics.ksu.ru/>).
- Member of the Teaching Committee of the PhD in Mathematics for Technology, University of Catania.
- Member of the Teaching Committee of the PhD in Pure and Applied Mathematics, University of Catania.
- Member of the Teaching Committee of the PhD in Mathematics and Computational Science, University of Catania.
- Member of AIRO (Associazione Italiana di Ricerca Operativa).
- Referee for journals (Journal of Optimization Theory and Applications, Operations Research Letters, European Journal of Operational Research, Quantitative Finance, Nonlinear Analysis, Computational Management Science, Mathematics and Computers in Simulation, Journal of Systems Science and Systems Engineering, Le Matematiche, Indian Journal of Pure and Applied Mathematics, Optimization Letters, Annals of Operations Research).
- **Visiting position** at the University of Massachusetts, Amherst, Department of Finance and Operations Management, Eugene M. Isenberg, School of Management, guest of Prof. Anna Nagurney, January 2-5 2001 and July 9-10, 2004.
- Co-editor of the book **“Equilibrium Problems and Variational Models”**, Kluwer Academic Publishers 2002, together with F. Giannessi and A. Maugeri.
- Author of the book **“Dynamic Networks and Evolutionary Variational Inequalities”**, Edward Elgar Publishing, Chentelham, UK, 2006.
- Co-editor of the Special Issue del Journal of Convex Analysis **“Variational Analysis and Applications in Erice 2015”**, 2018 (2), together with F. Giannessi and M. Théra.
- Co-editor of the Special Issue of the Journal of Global Optimization **“Variational Inequalities, Nash Equilibrium Problems and Applications”**, together with S. Battiato, G.M. Farinella, S. Giuffrè, L. Scrimali.
- Co-editor of the volume **“Optimization and Decision Science: New trends in Emerging Complex Real Life Problems”**, AIRO Springer Series, 2018, together with L. Scrimali.
- Co-editor of the Special Issue of the journal Networks and Spatial Economics **“Variational Inequalities, Nash Equilibrium Problems and Applications”**, together with S. Battiato, G.M. Farinella, S. Giuffrè, G. Lax, L. Scrimali.

Research Projects

- Ex 60% 2003 Project – Existence problems, uniqueness and regularity for elliptic and parabolic equations and systems, coordinator Prof. M. Marino.
- FIRB Project – Analysis of linear and nonlinear partial differential equations: methods, models, applications, coordinator Prof. M. Marino.
- PRIN 2008 - Variational Analysis and Partial Differential Equations, coordinator Prof. A. Maugeri.
- PRA 2006, PRA 2007, PRA 2008, PRA 2009, PRA 2010 – Variational Inequalities, Partial Differential Equations and Systems and Applications to Equilibrium Problems. Coordinator Prof. A. Maugeri.
- FIR 2013 – Applications of minimax methods to Analysis and Operations Research, coordinator Prof. B. Ricceri.
- Member of Project CLARA, coordinator Prof. G. Pappalardo.
- Coordinator of the GNAMPA Research Project 2015 – New trends of equilibrium problems on network: from sustainable development to the dynamics of environmental disasters to cybercrime, coordinator Prof. Patrizia Daniele.
- Member of Project “Modelli matematici nell'insegnamento-apprendimento della Matematica”, Department of Mathematics and Computer Science, University of Catania, coordinator Prof. L. Scrimali.
- Coordinator of the project FFABR “Variational Inequalities and Equilibrium Problems”.
- Member of the research project 2020: “Problemi di equilibrio: metodi variazionali e teoria dei giochi”, INDAM-GNAMPA. Coordinator: Prof. S. Giuffrè.
- Coordinator of the Interdepartmental Project 2020/2022 OMNIA – Ottimizzazione di Modelli di Network sllce 5G con UAV.

Teaching

- Mathematical Models and Operations Research, University of Catania, A.Y. 2013-2014, A.Y. 2014-2015, A.Y. 2015-2016.
- Mathematical Methods for Optimization, University of Catania, A.Y. 2012-2013.
- Operations Research, University of Catania, A.Y. 2001-2002, A.Y. 2002-2003, A.Y. 2003-2004, A.Y. 2004-2005, A.Y. 2005-2006, A.Y. 2007-2008, A.Y. 2008-2009, A.Y. 2009-2010, A.Y. 2010-2011, A.Y. 2011-2012, A.Y. 2012-2013, A.Y. 2013-2014, A.Y. 2014-2015, A.Y. 2015-2016, A.Y. 2016-2017, A.Y. 2017-2018, A.Y. 2018-19, A.Y. 2019-20.
- Mathematical Models for Optimization, A.Y. 2019-20.
- Optimization for Data Science, A.Y. 2019-20.

- Optimization, University of Catania, A.Y. 2005-2006, A.Y. 2006-2007, A.Y. 2007-2008, A.Y. 2008-2009, A.Y. 2009-2010.
- Networks and Supernetworks, University of Catania, A.Y. 2005-2006, A.Y. 2006-2007, A.Y. 2007-2008, A.Y. 2008-2009, A.Y. 2009-2010, A.Y. 2011-2012, A.Y. 2012-2013, A.Y. 2013-2014, A.Y. 2014-2015, A.Y. 2015-2016, A.Y. 2016-2017, A-Y. 2017-2018.
- Calculus, University of Catania, A.Y. 2001-2002, A.Y. 2002-2003, A.Y. 2003-2004, A.Y. 2004-2005.
- Themes of Operations Research for the Scuola Interuniversitaria Siciliana di Specializzazione per l'Insegnamento nella Scuola Secondaria, University of Catania, A.Y. 2002-2003, A.Y. 2003-2004, A.Y. 2004-2005.
- Themes of Numerical Analysis for the Scuola Interuniversitaria Siciliana di Specializzazione per l'Insegnamento nella Scuola Secondaria, University of Catania, A.Y. 2001-2002.

Research Activity

- Traffic Equilibrium Problem and its Dual;
- Traffic Equilibrium Problem in the Continuum case;
- Price equilibrium problem for spatially distributed markets;
- Equilibrium problems on time-dependent networks;
- Supply-Demand markets equilibrium problem;
- Duality theory and non regular Lagrange theory applied to the previous problems;
- Gap functions and equivalent optimization problems;
- Numerical computation based on the direct method and a generalized subgradient method for Variational Inequalities;
- Dynamics of Complex Networks in an Environment of Risk and Uncertainty;
- Financial equilibrium problems;
- Relationship between Evolutionary Variational Inequalities and Projected Dynamical Systems;
- Electric power networks
- Infinite-dimensional duality
- Discretization procedure and numerical computation for evolutionary variational inequalities
- Time-dependent supernetworks and variational formulations
- Regularity conditions for the solutions of Variational Inequalities
- End-of-life products networks
- Random Traffic Network Models
- Closed-loop supply chains

- Business Management
- Cybersecurity
- Humanitarian Logistics
- Management of organ transplant processes
- Strong Nash Equilibria
- Cloud Computing
- Human migration
- Green areas
- Evacuation plans

Invited Talks and Seminars

- Workshop on Equilibrium Problems with Side Constraints. Lagrange Theory and Duality, Scilla (RC) May 17-18, 1996;
- Conference on Numerical Methods for Optimization, Cortona (AR) June 8-12, 1997;
- 9th International Conference on Differential Equations, Plovdiv (Bulgaria) August 18-23, 1998;
- Workshop on Equilibrium Problems and Variational Models, Taormina (ME) December 3-5, 1998;
- Conference on Evolution Equations and Applications, Cortona (AR) May 9-14, 1999;
- Conference Giornate Nonlineari, Bologna November 11-13, 1999;
- 32nd Workshop on Equilibrium Problems and Variational Models, Erice (TP) June 23 – July 2, 2000;
- 2001 SIAM Annual Meeting, San Diego (California), July 9-13, 2001;
- XXXII Annual Confernce AIRO “La Ricerca Operativa nella Gestione del Territorio e delle Risorse”, Villasimius (CA), September 4-7, 2001;
- VI National Congress of the Società Italiana di Matematica Applicata e Industriale, Chia Laguna (CA) May 27-31, 2002, Session: Applications of Variational Inequalities (Coordinator: Prof. I.V. Konnov); First Joint Meeting AMS-UMI, Pisa June 12-16, 2002;
- International Conference on “Variational Analysis and Applications”, Erice June 20-30, 2003;
- 5th International Congress on Industrial and Applied Mathematics, Sydney July 7-11, 2003;
- Conference on High Performance Algorithms and Software for Nonlinear Optimization - Status and Perspectives, Ischia, June 18-20, 2004;
- Fourth World Congress of Nonlinear Analysts WCNA-2004, Orlando, Florida, USA, June 30 – July 7, 2004;

- XXXV Annual Conference AIRO, Lecce September 7-10, 2004; 8th SIAM Conference on Optimization, Stoccolma (Svezia), May 15-19, 2005;
- 5th ISAAC Congress, Catania July 25-30, 2005;
- XXXVI Annual Conference AIRO, Camerino September 6-9, 2005;
- “Southwestern Ontario Dynamics Day Workshop”, Guelph, Ontario, Canada April 7, 2006;
- Applied Math Colloquium Series at Harvard University, Boston, Massachusetts, USA, May 25, 2006;
- International Conference “Variational Analysis and Partial Differential Equations”, Erice July 5-14, 2006;
- 6th International Congress on Industrial and Applied Mathematics (ICIAM 2007), Zurich July 16-20, 2007;
- Workshop on “Complex Networks – Equilibrium and Vulnerability Analysis”, Catania March 10-12, 2008;
- XXXIX Annual Conference AIRO, Ischia September 7-11, 2008;
- Joint Mathematics Meetings, Washington DC January 5-8, 2009;
- 51st Workshop on “Variational Analysis and Applications”, Erice May 9-17, 2009;
- 23rd European Conference on Operational Research, Bonn July 5-8, 2009;
- Fifth China-Italy Colloquium on Applied Mathematics CICAM5, Acireale (CT) September 27-30, 2010;
- First French-Italian workshop on energy markets and models, “Variational Inequalities, Generalized Nash Games: Applications to Energy and Industrial Sectors”, Brescia, March 19-20, 2012;
- 58th Workshop on “Variational Analysis and Applications”, Erice May 14-22, 2012;
- 9th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, July 1-5, 2012;
- 21st International Symposium on Mathematical Programming (ISMP 2012), Berlin, August 19-24, 2012;
- EUROPT 2013, 11th EUROPT Workshop on Advances in Continuous Optimization, Florence, June 26-28, 2013;
- EURO-INFORMS Joint International Meeting, Rome, July 1-4, 2013;
- ICCOPT 2013 Conference, 4th International Conference on Continuous Optimization, Lisbon, July 27 - August 1, 2013;
- Conference “Talking about variational inequalities, equilibria and neighbouring problems”, Pisa, May 29-30, 2014;
- Mini-conference “La Matematica: Presente e Futuro” in the occasion of the retirement of Professor Maugeri, Catania, June 5, 2014;
- 18th European Conference on Mathematics for Industry - ECMI 2014, Taormina, June 9-13, 2014;

- 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, July 7-11, 2014;
- 44th Annual Conference AIRO 2014, Como, September 2-5, 2014;
- EURO 2015, Glasgow, July 12-15, 2015;
- International Workshop “Variational Analysis and Applications”, Erice, 28 August – September 5, 2015;
- EURO 2016, Poznań, July 3-6, 2016;
- 40th Annual Meeting of the Italian Association for Mathematics Applied to Economic and Social Sciences (AMASES), Catania, September 15-17, 2016;
- 3rd International Conference of Dynamics of Disasters, Kalamata, Greece, July 5-9, 2017.
- ODS 2017 – Optimization and Decision Science, Sorrento, Italy, September 4-7, 2017.
- EURO 2018, Valencia, July 8-11, 2018.
- EURO 2019, Dublin, June 23-26, 2019.
- ODS 2019 – Optimization and Decision Science, Genova, Italy, September 4-7, 2019.

Publications

Books

- [1] Editor of the book “**Equilibrium Problems and Variational Models**”, Kluwer Academic Publishers, in collaboration with F. Giannessi – A. Maugeri, 2002.
- [2] Author of the book “**Dynamic Networks and Evolutionary Variational Inequalities**”, Edward Elgar Publishing, 2006.
- [3] Co-editor of the Special Issue of the Journal of Convex Analysis “**Variational Analysis and Applications in Erice 2015**”, 2018 (2), together with F. Giannessi and M. Théra.
- [4] Co-editor of the Special Issue of the Journal of Global Optimization “**Variational Inequalities, Nash Equilibrium Problems and Applications**”, together with S. Battiato, G.M. Farinella, S. Giuffrè, L. Scrimali.
- [5] Co-editor of the volume “**Optimization and Decision Science: New trends in Emerging Complex Real Life Problems**”, AIRO Springer Series, 2018, together with L. Scrimali.
- [6] Co-editor of the Special Issue of the journal Networks and Spatial Economics “**Variational Inequalities, Nash Equilibrium Problems and Applications**”, together with S. Giuffrè, L. Scrimali.

Book Chapters

- [7] P. Daniele, A. Maugeri, “Vector Variational Inequalities and Modelling of a Continuum Traffic Equilibrium Problem”, *Vector Variational Inequalities and Vector Equilibria*, F. Giannessi Ed., Vol. 38, 2000, 97-111.
- [8] P. Daniele, “Variational Inequalities for Static Equilibrium Market. Lagrangean Function and Duality”, *Equilibrium Problems: Nonsmooth Optimization and Variational Inequality Models*, Kluwer Academic Publishers, F. Giannessi – A. Maugeri – P. Pardalos Eds., 2001, 43-58.
- [9] P. Daniele, A. Maugeri, “On Dynamical Equilibrium Problems and Variational Inequalities”, *Equilibrium Problems: Nonsmooth Optimization and Variational Inequality Models*, Kluwer Academic Publishers, F. Giannessi – A. Maugeri – P. Pardalos Eds., 2001, 59-69.
- [10] P. Daniele, A. Maugeri, “Equilibrium Problems and Variational Inequalities: a Continuum Transportation Model”, *Computational fluid and solid mechanics*, Vol. 1, 2 (Cambridge, MA, 2001), Elsevier, Amsterdam, 2001, 1543-1545.
- [11] P. Daniele, G. Idone, A. Maugeri, “The Continuum Model of Transportation Problem”, *Equilibrium Problems and Variational Models*, Kluwer Academic Publishers, P. Daniele – F. Giannessi – A. Maugeri Eds., 2002, 53-60.
- [12] P. Daniele, A. Maugeri, “The economic Model for Demand-Supply Problems”, *Equilibrium Problems and Variational Models*, Kluwer Academic Publishers, P. Daniele – F. Giannessi – A. Maugeri Eds., 2002, 61-78.
- [13] P. Daniele, “Variational Inequalities for Evolutionary Financial Equilibrium”, *Innovations in Financial and Economic Networks*, A. Nagurney Ed., 2003, 84-108.
- [14] P. Daniele, “Variational Inequalities for General Evolutionary Financial Equilibrium”, in *Variational Analysis and Applications*, F. Giannessi - A. Maugeri Eds., Springer Verlag, 2005, 279-299.
- [15] M.G. Cojocaru, P. Daniele, A. Nagurney, “Projected Dynamical Systems, Evolutionary Variational Inequalities, Applications, and a Computational Procedure”, in *Pareto Optimality, Game Theory and Equilibria*, A. Chinchuluun - A. Migdalas - P.M. Pardalos - L. Pitsoulis Eds., *Nonconvex Optimization and its Applications Series (NOIA)*, Springer, Berlin, Germany, 2008, 803-836.
- [16] P. Daniele, S. Giuffré, A. Maugeri, S. Pia, “A panoramic View on Projected Dynamical Systems”, in *Nonlinear Analysis and Variational Problems – In Honor of George Isac*, P.M. Pardalos - Th.M. Rassias - A.A. Khan Eds., 35, Springer, 2010, 235–258.
- [17] A. Barbagallo, P. Daniele, M. Lorino, A. Maugeri, C. Mirabella, “A Variational Approach to the Evolutionary Financial Equilibrium Problem with Memory Terms and Adaptive Constraints”, in *Network Models in Economics and Finance*, V.A. Kalyagin et al. (eds.), Switzerland, 2014, 13-24.

- [18] P. Daniele, S. Giuffré, M. Lorino, A. Maugeri, C. Mirabella, “Functional Inequalities and Analysis of Contagion in the Financial Networks”, in Handbook of Functional Equations - Functional Inequalities, T.M. Rassias et al. (eds.), 95, 2014, 129-146.
- [19] P. Daniele, S. Giuffré, A. Maugeri, “General Traffic Equilibrium Problem with Uncertainty and Random Variational Inequalities”, in Optimization in Science and Engineering: In Honor of the 60th Birthday of Panos M. Pardalos, T.M. Rassias et al. (eds.), New York, 2014, 89-96.
- [20] P. Daniele, A. Maugeri, A. Nagurney, “Cybersecurity Investments with Nonlinear Budget Constraints: Analysis of the Marginal Expected Utilities”, in Operations Research, Engineering, and Cyber Security, Vol. 113, Springer Optimization and Its Applications, N.J. Daras, T.M. Rassias (eds.), 2017, 117-134.
- [21] A. Nagurney, P. Daniele, E. Alvarez Flores, V. Caruso, “A Variational Equilibrium Network Framework for Humanitarian Organizations in Disaster Relief: Effective Product Delivery Under Competition for Financial Funds”, to appear in Dynamics of Disasters: Algorithmic Approaches and Applications, Ilias S. Kotsireas, Anna Nagurney, and Panos M. Pardalos, Editors, Springer International Publishers Switzerland.
- [22] G. Colajanni, P. Daniele, S. Giuffrè, A Maugeri, “Nonlinear Duality in Banach Spaces and Applications to Finance and Elasticity”, to appear in Applications of Nonlinear Analysis, T.M. Rassias Ed., Springer Optimization and Its Applications, 2018.
- [23] G. Colajanni, P. Daniele, “A Financial Optimization Model with Short Selling”, to appear in Optimization and Decision Science: New trends in Emerging Complex Real Life Problems, AIRO Springer Series.
- [24] P. Daniele, L. Scrimali, “Strong Nash Equilibria for Cybersecurity Investments with Nonlinear Budget Constraints”, to appear in Optimization and Decision Science: New trends in Emerging Complex Real Life Problems, AIRO Springer Series.
- [25] G. Colajanni, P. Daniele, “A Financial Model for a Multi-Period Portfolio Optimization Problem with a variational formulation”, in: Variational Analysis and Set Optimization: Developments and Applications in Decision Making, A. Khan, E. Köbis, C. Tammer Eds., 2019, 31-53.
- [26] G. Cappello, P. Daniele, S. Giuffrè, A Maugeri, “A variational approach to the financial problem with insolvencies and analysis of the contagion”, In: Rassias T., Pardalos P. (eds) Mathematical Analysis and Applications. Springer Optimization and Its Applications, **154**, Springer, Cham, 2019, 17-40.
- [27] G. Cappello, P. Daniele, “A Variational Formulation for a Human Migration Problem”, In: M. Paolucci et al. (eds.), Advances in Optimization and Decision Science for Society, Services and Enterprises, AIRO Springer Series, 2020, 185-195.

Papers

- [28] P. Daniele, “Dual Variational Inequality and Applications to asymmetric traffic equilibrium problem with capacity constraints”, “Equilibrium Problems with Side

- Constraints. Lagrangean Theory and Duality”, F. Giannessi - A. Maugeri editors, *Le Matematiche*, 49, 1994, 211-222.
- [29] P. Daniele, “A remark on a dynamic model of a Quasi-Variational Inequality”, *Rendiconti del Circolo Matematico di Palermo, Serie II, Suppl.* 48, 1997, 91-100.
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July 1, 2020