MASSIMILIANO GIULI
Curriculum

PERSONAL DETAILS

Date of birth: December 12, 1973
Citizenship: Italian
Address: Dipartimento di Ingegneria e Scienze dell'Informazione e Matematica
Università degli Studi dell'Aquila
Via Vetoio, 67100 L'Aquila, Italy
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POSITIONS HELD

- Associate Professor of Mathematical Methods for Economics, Finance and Actuarial Sciences (SECS-S/06) Department of Information Engineering, Computer Science and Mathematics
  University of L'Aquila, 2018-present
- Researcher of Mathematical Methods for Economics, Finance and Actuarial Sciences (SECS-S/06)
  University of L'Aquila, 2002-2017

EDUCATION

- Degree in Mathematics: Equazioni di evoluzione per la finanza, University of L'Aquila, 1997, cum laude
- Ph.D. in Mathematics for Economic Decisions: Diffusion models for stock prices in a financial market under heterogeneous trading and learning, University of Pisa, 2002
- Math School Smi, Perugia, 1997
- Foundations and Developments of Mathematical Economics, Pozzuoli, 1998

PERSONAL ID'S

ORCID iD: 0000-0002-9555-3497
Scopus Author ID: 54797456700
ResearcherID: AFO-6846-2022
Scopus h-index: 6
WoS h-index: 6

RESEARCH INTERESTS

- Variational and other types of inequalities involving nonlinear operators: equilibrium problems, variational inequalities, models and methods
- Set-valued and variational analysis: selection, fixed-point and coincidence theorems
- Applications in optimization, convex analysis, economics: abstract economies, noncooperative games and hierarchical games (including Stackelberg games)

BIBLIOMETRICS

Author/co-author of about 30 papers, many of them published on international journals or volumes. Among the international journals in which the papers have been published we may cite (2021 performance):

- Applied Mathematics and Optimization, IF=2.194, IF5=2.255, SNIP=1.572, SJR=1.043
- Computational Management Science, SNIP=0.742, SJR=0.546, A
- Decisions in Economics and Finance, SNIP=0.764, SJR=0.279, A
- Journal of Convex Analysis, IF=0.622, IF5=0.729, SNIP=0.999, SJR=0.567
- Journal of Global Optimization, IF=1.996, IF5=2.166, SNIP=1.535, SJR=0.962, A

- Journal of Mathematical Analysis and Applications, IF=1.417, IF5=1.445, SNIP=1.262, SJR=0.859, A
- Journal of Nonlinear and Convex Analysis, IF=1.016, IF5=0.856, SNIP=0.611, SJR=0.385
- Journal of Nonlinear and Variational Analysis, IF= 2.175, IF5=1.755, SNIP=1.294, SJR=0.578
- Journal of Optimization Theory and Application, IF= 2.189, IF5=2.111, SNIP= 1.356, SJR=1.044, A
- Nonlinear Analysis: Real World Applications, IF= 2.765, IF5=2.644, SNIP=1.482, SJR=1.272, A
- Optimization, IF=2.456, IF5=2.255, SNIP=1.420, SJR=0.895

A: Included in the list of A-class journals by Anvur

REFEREEING AND REVIEWING

- Referee: Journal of optimization theory and applications, Journal of global optimization, Operations research letters, Journal of convex analysis, Optimization, Decisions in economics and finance, Computational Management Science
- Reviewer: Mathematical reviews

EDITORIAL ACTIVITY

- Editor: Mathematics, MDPI
- Guest Editor:
  - Nash games, equilibria and applications - Minimax theory and its applications, Heldermann Verlag
  - Bilevel problems and equilibria: models, methods, and applications – Mathematics, MDPI
  - Fixed point theory and Its applications in nonlinear analysis and optimization – Mathematics, MDPI

PH.D. PROGRAMS

- Member of the doctorate councils of the following programs:
  - Mathematics and modelling**,**
    University of L'Aquila, Italy, from 38th cycle
  - Metodi matematici per l'economia, l'azienda, la finanza e le assicurazioni
    LUISS Guido Carli University, Rome, Italy, 22nd cycle
- Supervisor of Ph.D. thesis:
  - Sara Latini, Mathematics and modeling, University of L'Aquila

CONFERENCES

- Organizer:
  - Variational Analysis and Optimization (Messina, 2023)
  - Bilevel programming, equilibrium problems and applications, AMASES 2022 (Palermo, 2022)
  - Workshop on Equilibrium Problems and related topics (L'Aquila, 2022)
  - Workshop on Optimization and variational analysis (L'Aquila, 2013)
- Speaker:
  - International Conference on Variational Analysis and Optimization with Applications (Aligarh, India, 2023)
  - Minisymposium on Variational Analysis and Applications (Brescia, 2023)
  - 32nd European Conference on Operational Research (Espoo, Finland, 2022)
  - Workshop on Variational Analysis and Applications for Modelling of Energy Exchange (Brescia, 2022)
  - XXII Convegno Amases, Optimization, Variational Analysis, and Applications (Pavia, 2021)
  - Optimization and Related Topics (Milano, 2019)
  - I Conference on Minimax Inequalities and Equilibrium Problems (Granada, 2019)
  - Afternoon Workshop in Optimization (Milano, 2019)
  - 29th European Conference on Operational Research, EURO2018 (Valencia, 2018)
  - Variational analysis, equilibria and optimization (Pisa, 2017)
  - 11th EUROPT Workshop on Advances in Continuous Optimization (Firenze, 2013)
  - Recent developments on mathematical programming and applications (Pisa, 2009)
  - XXX Convegno Amases (Trieste, 2006)
  - XXV Convegno Amases (Firenze, 2001)

- Evolution equations: applications to physics, industry, life sciences and economics (Levico Terme, 2000)
- XXII Convegno Amases (Genova, 1998)

DISTINCTIONS

- Member of the Working Group on Generalized Convexity (455 members from 52 countries)
- Member of the financed PRIN projects:
  - Il problema della gestione del debito pubblico. Modelli di controllo stocastico LUISS Guido Carli University, Rome, Italy, 2006
  - Modelli di mercato e di corporate finance per la realtà italiana, University of Pisa, Italy, 2003
- Principal investigator of the PRIN project:
  - Leader-follower games: models, methods and applications to industrial symbiosis and eco-parks University of L'Aquila, Italy, 2022
- FFABR grant of Euro 3.000: Equilibrium and Quasiequilibrium Problems, 2018-2019
- Member of REPRISE: Register of Expert Peer Reviewers for Italian Scientific Evaluation, MIUR, from 2013
- Projects as a member of the section Calcolo delle variazioni, teoria del controllo e ottimizzazione, INDAM-GNAMPA:
  - Optimistic Single-Leader Multi-Follower Game: a variational approach, 2022
  - Projected solution for generalized quasi-variational problems with non-self map, 2023
- Member of AMASES: Associacion for Mathematics Applied to Social and Economic Sciences, from 1998

INSTITUTIONAL ACTIVITIES

- University of L'Aquila Committees:
  - Fees Committee, from 2014
  - Right to Education Committee, from 2011
  - University Selection Board (scholarships, 150 hours positions, tutoring), from 2011
  - Disciplinary Committee, 2017
- Department of Information Engineering, Computer Science and Mathematics Committees:
  - Communications and Website Committee, from 2021
  - Department Council, 2016-2019
  - Research Evaluation and Rules Committee, 2017
  - Career Guidance Commission (mathematics), 2014-2017
  - Entry Tests Committee, 2022
- Faculty of Economics Committees (up to 2011):
  - Entry Tests Committee, 2010
  - Career Guidance Commission, from 2004
  - Joint Committee of Professors and Students, 2009-2011

TEACHING

- University of L'Aquila
  - Undergraduate courses: Matematica finanziaria I, Matematica generale esercitazioni, Modelli di simulazione, Idoneità informatica, Precorso di matematica
  - MSc courses: Finanza matematica, Matematica finanziaria II, Matematica per le applicazioni economiche e finanziarie, Teoria del rischio, Metodi matematici per la finanza e le assicurazioni, Strumenti quantitativi per le scienze sociali
  - MSc courses in English Language: Mathematical economics and finance, Mathematical methods for risk analysis, Mathematics for decision making
  - Ph.D. courses: Mathematical models for economic equilibria
  - Other courses: Didattica e fondamenti di matematica finanziaria (TFA and PAS, A048 Class)
- University of Teramo
  - MSc courses: Analisi finanziaria

PUBBLICATIONS

- Papers in refereed journals:

1. Castellani, M.; Giuli, M.; Latini, S.: Projected solutions for finite-dimensional quasiequilibrium problems. Computational Management Science 20 (2023)
2. Balaj, M.; Castellani, M.; Giuli, M.: New criteria for existence of solutions for equilibrium problems. Computational Management Science 20 (2023)
3. Castellani, M.; Giuli, M.: A Modified Michael's Selection Theorem with Application to Generalized Nash Equilibrium Problem. J. Optim. Theory Appl. 196 (2023), 199--211
4. Castellani, M.; Giuli, M.: A generalized Ky Fan minimax inequality on finite-dimensional spaces. J. Optim. Theory Appl. 190 (2021) 343--357
5. Castellani, M.; Giuli, M.: Mathematical justification of a generalized equilibrium problem. J. Nonlinear Var. Anal. 5 (2021) 421--427
6. Castellani, M.; Giuli, M.; Pappalardo, M.: Existence results for a wide class of equilibrium problems: a general scheme. J. Nonlinear Convex Anal. 21 (2020) 1219--1224
7. Castellani, M.; Giuli, M.: Existence of quasiequilibria in metric vector spaces. J. Math. Anal. Appl. 484 (2020) 123751
8. Castellani, M.; Giuli, M.: A coercivity condition for nonmonotone quasiequilibria on finite-dimensional spaces. J. Global Optim. 75 (2019) 163--176
9. Castellani, M., Giuli, M., Pappalardo, M.: A Ky Fan minimax inequality for quasiequilibria on finite dimensional spaces, J. Optim. Theory Appl. 179 (2018) 53--64
10. Giuli, M.: Cyclically monotone equilibrium problems and Ekeland's principle, Decis. Econ. Finance 40 (2017) 231--242
11. Castellani, M., Giuli, M.: Ekeland's principle for cyclically antimonotone equilibrium problems, Nonlinear Anal. Real World Appl. 32 (2016) 213--228
12. Castellani, M., Giuli, M.: Approximate solutions of quasiequilibrium problems in Banach spaces, J. Global Optim. 64 (2016) 615--620
13. Castellani, M., Giuli, M.: Stability and existence results for quasimonotone quasivariational inequalities in finite dimensional spaces, Appl. Math. Optim. 73 (2016) 137--152
14. Castellani, M., Giuli, M.: An existence result for quasiequilibrium problems in separable Banach spaces, J. Math. Anal. Appl. 425 (2015) 85--95
15. Castellani, M., Giuli, M., Nobakhtian, S., Pappalardo M.: Local cone approximations in mathematical programming, Optimization 64 (2015) 1669--1681
16. Giuli, M.: Closedness of the solution map in quasivariational inequalities of Ky Fan type, J. Optim. Theory Appl. 158 (2013) 130--144
17. Castellani, M., Giuli, M.: Refinements of existence results for relaxed quasimonotone equilibrium problems, J. Global Optim. 57 (2013) 1213--1227
18. Castellani, M., Giuli, M.: Pseudomonotone diagonal subdifferential operators, J. Convex Anal. 20 (2013), 1--12
19. Castellani, M., Giuli, M.: A characterization of the solution set of pseudoconvex extremum problems, J. Convex Anal. 19 (2012) 113--123
20. Bigi, G., Castellani, M., Giuli, M., Panicucci, B., Pappalardo, M., Passacantando, M.: Recent advances in equilibrium problems, Quaderni di Matematica 27 (2012), 41--66
21. Castellani, M., Giuli, M.: On equivalent equilibrium problems. J. Optim. Theory Appl. 147 (2010) 157--168
22. Castellani, M., Giuli, M.: Predicting excess returns under heterogeneous trading and learning: A diffusive approach, Finance Letters 3 (2005) 12--16
23. Giuli, M., Monte, R.: Diffusion processes in a financial market under heterogeneous trading and learning, Rend. Sem. Mat. Messina Ser. II 8(23) (2001/02), 233--247 (2004)
24. Colombo, F., Giuli, M., Vespri, V.: Generation of smoothing semigroups by degenerate elliptic operators arising in financial mathematics, Commun. Appl. Anal. 3 (1999) 283--302

- Papers in refereed books:

1. Castellani, M., Giuli, M.: On paramonotone and pseudomonotone* maps, Recent developments on mathematical programming and applications 144, 41--55, Aracne Editrice, 2009
2. Giuli, M., Gozzi, F., Monte, R., Vespri, V.: Generation of analytic semigroups and domain characterization for degenerate elliptic operators with unbounded coefficients arising in financial mathematics. II, Functional analysis and evolution equations, 315--330, Birkhäuser, Basel, 2008
3. Giuli, M., Vespri, V.: Speculative dynamics and feedback trading. A nonlinear model, In: Proceedings of the 4th JSAM-SIMAI Seminar on Industrial and Applied Mathematics, Gakuto international series, Mathematical sciences and applications 28, 43--51, Gakkotosho, Tokyo, 2008
4. Castellani, M., Giuli, M.: The axiomatic bargaining problem: a brief survey, In: Recent developments on applied mathematics 219, 25--44, Aracne Editrice, 2007
5. Castellani, M., D'Ottavio, A., Giuli, M.: A mean value theorem for K-directional epiderivatives, Recent advances in optimization (Varese, 2002), 21--34, Datanova, Milan, 2003
6. Colombo, F., Giuli, M., Vespri, V.: A semigroup approach to no-arbitrage pricing theory: constant elasticity variance model and term structure models, Evolution equations: applications to physics, industry, life sciences and economics (Levico Terme, 2000), 113--126, Progr. Nonlinear Differential Equations Appl., 55, Birkhäuser, Basel, 2003

- Conference proceedings:

1. Giuli, M., Vespri, V.: Speculative dynamics and feedback trading. A nonlinear model, Atti del XXX Convegno AMASES (Trieste, 2006)
2. Giuli, M., Monte, R.: Diffusion processes in financial a market under heterogeneous trading and learning, Extended abstract su Atti del XXV Convegno AMASES (Firenze, 2001)
3. Colombo, F., Giuli, M., Vespri, V.: Generation of smoothing semigroups by degenerate elliptic operators arising in financial mathematics, Atti del XXII Convegno AMASES (Genova, 1998), 137--152

- Reports:

1. Barucci, E., Giuli, M., Monte, R.: Asset Prices under Bounded Rationality and Noise Trading, Dipartimento di Statistica e matematica applicata all’economia, Università di Pisa, Report n. 181, June 2000