Francesca Centrone

Curriculum Vitae

Current Position

04.2018–04.2024 **National Scientific Qualification as Associate Professor**, *13/D4*, Mathematical Methods for Economics, Finance and Actuarial Sciences.

03.2001– **Assistant Professor**, *University of Piemonte Orientale*.

Education

2003 **Ph.D in Mathematics for Economic Analysis and Finance**, *University of Napoli ''Federico II''*, Supervisor: Professor Massimo Marinacci, Bocconi University.

1996 **Bachelor in Mathematics**, *University of Perugia*.

Teaching

Executive

- Linear Algebra (12 hours) for the course ''Optimization'', (Ph.D. in Statistics and Mathematical Finance, University of Milano Bicocca), november-december 2016, november-december 2017.
- Invited Seminar, ''Coalitional games and solution concepts'' (Ph.D. in Mathematics and Informatics for the elaboration and representation of knowledge, University of Perugia), May 22, 2013.

Master

- Quantitative Models for the management of Insurance risks, Quantitative Methods for Finance, (Master in Management of Financial Intermediation, University of Piemonte Orientale, Novara), Game Theory (Master in Economics and Management of Firms, University of Piemonte Orientale, Novara).

Graduate

- Portfolio Theory, Quantitative Methods for Finance, Asset allocation (Master's Degree in Finance, University of Eastern Piedmont, Novara).

Undergraduate

- Calculus 1, Calculus 2, Decision Theory, Game Theory, (University of Eastern Piedmont, Novara), Exercises for the course of General Mathematics, University of Naples ''Federico II''.

Ad hoc refereeing

European Journal of Operational Research, Journal of Optimization Theory and Applications, PlosOne, Economic Theory, Technological Forecasting and Social Change, Journal of Industrial and Management Optimization.

Via Ettore Perrone 18 – 28100, Novara, Italy
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Visiting

- 12-30 May 2005, University of Texas, Austin.
- 14-15 March 2018, Cass Business School, London (invited seminar).

Research grants and research projects

- 2017: Research grant for the ''Fondo per il finanziamento delle attività base di ricerca'', MIUR.
- 2007-2009: ''Vaccinal choices and information: mathematical models and empirical analysis
- 2006-2008: ''Credit risk measurement'', PRIN 2006.
- 2003-2005: ''Management of financial, credit and operational risks: tools and models'', PRIN 2003.

Papers in Refereed Journal

- Bhowmik, A., Centrone, F., Martellotti, A.''Coalitional extreme desirability in finitely additive exchange economies with asymmetric information'', to appear in Journal of Mathematical Economics.
- G.Canna, F. Centrone and E. Rosazza Gianin,''Capital allocations for risk measures: a numerical and comparative study'', Risk Management Magazine, (2019).
- F. Centrone, E. Rosazza Gianin, ''Capital allocation à la Aumann-Shapley for nondifferentiable risk measures'', European Journal of Operational Research, 267 (2018) 667-675.
- F. Centrone, ''Representation of Epstein-Marinacci derivatives of absolutely continuous TU games'', Economics Bulletin, Vol. 36, No. 2, 2016, 1149-1159.
- F. Centrone, A. Martellotti, ''Coalitional extreme desirability in finitely additive exchange economies'', Economic Theory Bulletin, 4, 2016, 17-34.
- F. Centrone, A. Martellotti, ''Some condition for scalar and vector measure games to be Lipschitz'', International Journal of Mathematics and Mathematical Sciences , 2014.
- F. Centrone, A. Martellotti, ''The Burkill-Cesari integral on spaces of absolutely continuous games'', International Journal of Mathematics and Mathematical Sciences, vol. 2014 , 2014.
- F. Centrone, A. Martellotti, ''A mesh based notion of derivative for TU games'', Journal of Mathematical Analysis and Applications, 389, 2012, 1323-1343.
- P. Manfredi, P. Della Posta, A. d'Onofrio., E. Salinelli, F. Centrone, C. Meo, P. Poletti, ''Optimal vaccination choice, vaccination games, and rational exemption: An appraisal'', Vaccine, 28, n. 1, 2009, 98-109.
- F. Centrone, C. Meo, ''Value Allocations in Economies with coalition structure'', Economics Bulletin, Vol. 3, n. 49, 2008, 1-8.
- F. Centrone, C. Meo, ''Coalition formation in games without side payments'', Mathematical Social Sciences 56, 2008, 314-320 .
- F. Centrone, E. Salinelli, ''A Bass-type model for a dynamic market with logistic growth'', in R. J. Hosking and E. Venturino (eds)Aspects of Mathematical Modelling, Mathematics and Biosciences in Interaction, Birkhauser Verlag, Basel/ Switzerland, 2008, 343-362.
- F. Centrone, A. Goia, E. Salinelli, ''Demographic processes in a model of innovation diffusion with dynamic market'', Technological Forecasting and Social Change 74, 2007, 247-266.
- F. Centrone, A. Martellotti, ''On the geometry of proximinal subspaces of codimension n of C(Q)'', Ricerche di Matematica, Vol.LIII, fasc. 1, 2004, 29-56.
- F. Centrone, A. Martellotti, ''Proximinal subspaces of C(Q) of finite codimension'', J. Approx. Theory, 101, 1999, 78-91.

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Works in progress

- F. Centrone, E. Rosazza Gianin, ''Capital allocation for set-valued risk measures'', submitted (2019)
- Bhowmik, A., Centrone, F., Martellotti, A.''Coalitional extreme desirability in finitely additive exchange economies with asymmetric information'', https://econpapers.repec.org/RePEc:pra:mprapa:71084, (2015) (revision submitted).

Conference talks and invited seminars

- Symposium in Quantitative Finance and Risk Analysis (QFRA), Kos, 26-28 June 2019, Talk ''Capital Allocation for set-valued risk measures'' .
- XLII AMASES Conference, Napoli, 13-15 September 2018, Talk ''Capital Allocation for classical and set-valued risk measures'' (Session organizer and chair: Risk measures, Capital Adequacy and Capital Allocation (with Emanuela Rosazza Gianin)).
- 10 th Samos Conference in Actuarial Science and Finance, Samos, 29 May-4 June 2018, Talk ''Capital Allocation for classical and set-valued risk measures''
- Invited Seminar: CASS Business School, London, (Uk), 14 March 2018, title ''Capital Allocation for convex and quasi-convex non differentiable risk measures''.
- XLI AMASES Conference, Cagliari, 14-16 September 2017, Talk ''Capital Allocation à la Aumann and Shapley for non differentiable risk measures''.
- IME 2017 - 21st International Congress on Insurance: Mathematics and Economics, Vienna , 3-5 July 2017, Talk ''Capital Allocation à la Aumann and Shapley for non differentiable risk measures''.
- Third Conference on Quantitative Finance and Risk Analysis (QFRA), Corfù, 15-16 June 2017, Talk ''Capital Allocation à la Aumann and Shapley for non differentiable risk measures''.
- XV convegno SAET, Cambridge (UK), 29-31 July 2015, Invited talk, ''Coalitional extreme desirability in finitely additive exchange economies''.
- Invited seminar, Department of Mathematics and Informatics, Università di Perugia: '' Economie di larga scale e Teoremi del Welfare: il modello classico e le più recenti generalizzazioni'' 4 giugno 2014.
- XXXVII Convegno AMASES, Stresa, September 2013, talk, ''A mesh based derivative for TU games as an Aumann Shapley value on a subspace of AC''.
- XXX Convegno AMASES, Trieste, September 2006, talk, ''Coalition Formation in Exchange Economies: some remarks''.
- XXIX Convegno AMASES, Palermo, September 2005, talk: ''A Radon- Nikodym type derivative for TU games''.

Attended Conferences and Workshops

- XXIV European Workshop on General Equilibrium Theory, 29 giugno-1 luglio 2015, Napoli, Chair of the session Mathematical Economics.
- IX Conference of the Society for the Advancement of Economic Theory, Ischia, Luglio 2009.
- XVII European Workshop on General Equilibrium Theory, Paestum, 13-15 Giugno 2008.
- VI Conference of the Society for the Advancement of Economic Theory, Rodi, Luglio 2003.
- XXVI Convegno AMASES, Verona, Settembre 2002.
- Workshop ''Fondamenti e Sviluppi della Matematica per l'Economia'', Pozzuoli (NA), 28 Maggio-15 Giugno 2001.

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- V Conference of the Society for the Advancement of Economic Theory, Ischia, Luglio 2001.
- Workshop ''Fondamenti e Sviluppi della Matematica per l'Economia'', Pozzuoli (NA), 22-29 Maggio 2000.
- I Workshop su Misure Finitamente Additive, Trieste, 1-2 Giugno 2000.
- IX CARTEMI, Grado 15-19 Settembre 2000.
- Convegno di Analisi Nonlineare, Perugia, 9-11 Novembre 2000.
- Workshop ''Fondamenti e Sviluppi della Matematica per l'Economia'', Pozzuoli (NA), 24 Maggio-11 Giugno 1999.
- Workshop on ''Teoria della Misura e Analisi Reale'', Gorizia, 29 Agosto- 8 Settembre 1999, with presentation of poster: Proximinal subspaces of C(Q) of finite codimension.
- XVI Congresso UMI, Napoli, 13-18 Settembre 1999.
- Workshop ''Fondamenti e Sviluppi della Matematica per l'Economia'', Pozzuoli (NA), 22 Giugno-10 Luglio 1998.
- ''School on the Mathematics of Economics: a primer in Economics for Physicists and Mathematicians'', Abdus Salam International Centre for Theoretical Physics of Trieste, 14-18 Settembre 1998.

Other activities

- Membro AMASES (Association for Mathematics applied to Social and Economic Sciences).
- Membro GNAMPA (National Group for Mathematicalcal Analysis, Probability and their Applications).
- Reviewer per Mathematical Reviews (AMS).

Languages

English	**Fluent**	*C1*
Spanish	**Advanced**	*B1*
French, German	**Scholar**	*Basic conversation only*

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