Luiss

docenti.luiss.it

Fausto Gozzi

- Mathematical Methods for Economics and Finance 2017-2018
- RoME course 2021-2022: Mathematical Methods for Economics
- Mathematical Methods for Economics and Finance 2018-2019
- ROME – Mathematical Methods for Economics and Finance 2018-2019 FIRST PART
- Mathematical Methods For Economics and Finance A.Y. 2020-2021
- RoME 2020-2021, Mathematical Methods, Second Part
- RED course 2021 : "Introduction to Dynamic Optimization in Economics"
- MATHEMATICAL METHODS FOR FINANCE 2022-2023
- Mathematical Methods for Economics, 2021-22
- Mathematical Methods for Finance, 2021-22
- MATHEMATICAL METHODS FOR ECONOMICS 2022-2023
- RED course 2022: "Introduction to Dynamic Optimization in Economics"
- RoME course 2022-2023: Mathematical Methods for Economics
- ROME – Mathematical Methods for Economics and Finance 2019-2020, First Part
- MATHEMATICAL METHODS FOR ECONOMICS AND FINANCE 2019-2020

External Courses

- Bielefeld Course, May 2018
- Luiss – UoP, Mathematics
- Luiss – University of Petra: Mathematical Finance Part 1
- Course on Optimal Control at Athens University of Economics and Business

CV English (and Italian)

Short CV of Fausto Gozzi

Current work address

Full professor of Mathematics for Economics and Finance

Dipartimento di Economia e Finanza, Luiss University, Roma, Italy

Ph. +39.06.85225723;

Email: fgozzi@luiss.it

Webpage: http://docenti.luiss.it/gozzi/

A) Academic and Research Positions:

Oct. 2003 – current Full Professor, Università LUISS – Roma, Italy

Nov. 1998 – Sept. 2003 Associate Professor, Università di Roma "La Sapienza", Italy.
May 1990 – Oct. 1998 Ricercatore (Assistant), Università di Pisa, Italy.

B) Education:
1987- 1990 PHD (Perfezionamento) in Mathematics, Scuola Normale Superiore, Pisa, Italy (PHD thesis defended 22/12/1998).

1983-1987 "Laurea" in Mathematics, Università di Pisa

1983-1987 "Licenza" in Mathematics, Scuola Normale Superiore di Pisa.

C) Main research interests
i) Optimal control of deterministic and stochastic systems, in finite and infinite dimension, and application to economics, finance, insurance, fluidodynamics.
ii) Partial Differential Equations (especially Hamilton-Jacobi-Bellman equations associated to optimal control problems).

iii) Dynamic Programming and Verification Theorems for Optimal Control Problems
iv) Pricing and hedging of financial derivatives.
v) Optimal Portfolio selection also in case of liquidity constraints or path-dependent dynamics.
vi) Dynamic economic models, especially models with heterogeneous goods.
vii) Stochastic and Deterministic Path-Dependent Models and their Control.

viii) Optimal control of Mc Kean – Vlasov type equations.

ix) Differential Games, Mean Field Games and applications to Economics and Finance.

x) Models on the relation between Economic Activities, the Welfare and the Environnment (climate change, local pollution, emergence of pandemics, etc.)

D) Seminars and congresses
FG has delivered about 80 invited talks at various congresses (including 4 short courses and 1 plenary talk); about 80 invited seminars in various universities. FG has organized minisimposia at few congresses. FG since many years has supervised some seminars in his departments in Rome and in Pisa.
FG has been member of the scientific committee of few congresses (IME congress, Luiss, Roma 14-16/6/2004, School and Workshop ITN "Stochastic Control in Infinite Dimension", Milano, 7/2011, Viennese Workshop on Optimal Control, Wien, 7/2018).

FG has recently organized two workshop at Luiss (UCL-Rome Workshop on Stochastic and Partial Differential Equation Methods in Finance and Economics Luiss, Rome, Italy, 20-22 May 2019; online workshop on "Mean Field Games and Economics", Luiss, Rome, Italy, 7-8 September 2020) and one at the University of Pisa (Workshop on "Space and Growth: Theoretical and Empirical Models" December 13-14, 2019).

E) Visiting Positions

Visiting PHD student at Brown University, USA; visiting professor at the following universities: Université Paris VII and XIII (France), Georgia Institute of Technology (USA), University of New South Wales, Sydney (Australia), AMU Marseille (FR), York University (UK), EPFL Lausanne (Switzerland), Scuola Normale (Pisa-Italy), Universitat Bielefeld (Germany), Université de Louvain-La-Neuve (Belgium), Osaka University (Japan), Athens University of Economics and Business (Greece).

F) Research funds

National PI (Coordinatore nazionale) of a national PRIN project (2017: 247.000 Euro)

National PI (Coordinatore nazionale) of a national PRIN project (2006: 106.500 Euro)

National PI (Coordinatore nazionale) of a "progetto coordinato" CNR (1999: about 42.000 Euro).

Local PI (Coordinatore locale) of a local unit of 2 national PRIN project MIUR (PRIN 2003: 71.100 Euro; PRIN 2015: 12.000 Euro).

Local PI (Coordinatore locale) of the Pisa unit in a "progetto coordinato" CNR (1998: about 6000 Euro).

PI (Coordinatore) of 2 "progetti di ateneo" at Università di Roma "La Sapienza" (1998: about 30.000 Euros, 2001: about 35.000 Euros).

G) Cooperation with firms and institutions. FG took part to the following projects.

Cooperation between IAC-CNR and INA (Istituto Nazionale Assicurazioni) about optimal portfolio selection for INA's funds. In the project were involved 3 students and few INA employees.

Project on "Applications of the stochastic control theory to the optimal public debt management" with IAC-CNR and the treasury ministry in Italy.

Cooperation with Lottomatica to study models for the "lotto" game and for the behavior of its players.

H) Students

FG has supervised the thesis of 11 PHD students (also with other professors) in various PHD programs. Among them Silvia Faggian (Università di Pisa), Giorgio Fabbri (Università di Roma "La Sapienza"), Salvatore Federico (Scuola Normale – Pisa), Mauro Rosestolato (Scuola Normale – Pisa), Francesco Bartaloni (Università di Pisa).

FG has promoted and supervised (as "coordinatore del collegio dei docenti") the organization of a PHD program (joint with Université Paris 13) in Luiss University about Mathematical Economics and Finance ("Dottorato in metodi matematici per l'economia, l'azienda, la finanza e le assicurazioni", 2005-2010). This program has been also funded by the "Vinci" program of the French-Italian University, by San Paolo IMI and Lottomatica. 8 students got their PHD.

FG has been (and partly still is) director of a post-doc fellow of CNR (Giulia Sargenti) and of 14 temporary positions (2-3-4 years) at Luiss (Assegno di ricerca) (Maya Briani, Marco Papi, Marco Avarucci, Giorgio Fabbri, Alessandra Cretarola, Salvatore Federico, Cristina Di Girolami, Cecilia Prosdocimi, Mauro Rosestolato, Xavier Dupuis, Elena Bandini, Gianluca Cappa, Margherita Zanella, Marta Leocata, Daria Ghilli).

I) Editorial and Referee activity

FG is currently Associate Editor of:

– Journal of Mathematical Economics

– Stochastic Analysis and Application

– Journal of Optimization Theory and Applications

– International Journal of Economic Theory

FG has been referee for various research programs at various institutions; among them:

– Imperial College London

– Italian PRIN MIUR

– Swiss Science Foundation

– Università di Padova

FG has been referee for various PHD thesis at various institutions; among them:

– Scuola Normale Superiore – Pisa

– University of York – UK

– Columbia University – USA

– University of New South Wales, Sydney – Australia

– University of Sydney – Australia

FG has been referee for the promotion of some people in various universities. In particular:

-Referee for French habilitation thesis of I. Kharroubi (Université Paris 9);

-Referee for the promotion to full professorship at the University of Luxembourg;

FG has been for around 6 years external member of the CAP – Committee for Appointments and Promotions, at Bocconi University (Milano, Italy) providing various reports on candidates to be hired there.

FG is or has been referee for various journals in pure and applied mathematics, in Economics and Finance; among them:

Annali della Scuola Normale Superiore. Annals of IHP, Annals of Operations Research. Applied Mathematics and Optimization. CDC Conference Proceedings. Chaos, Solitons and Fractals. Communications in Pure and Applied Mathematics. Control and Cybernetics. Decisions in Economics and Finance. Differential and Integral Equations. Econometrica, Economic Bulletin. Electronic Journal of Probability. European J. of Operation Research. IEEE Access. Insurance, Mathematics and Economics. J. of Economics. J. of Economic Behavior and Organization. J. of Economic Dynamics and Control. J. of Economic Theory. J. of Mathematical Economics. Mathematica Slovaca. Mathematical Finance. Mathematics of Operations Research. Metroeconomica. Nonlin. Anal., Th., Meth. and Applic. Nonlinear Differential Equations and Applications NoDea. Proceedings of the American Mathematical Society. Proceedings of the IEEE. Rivista matematica Università di Parma. Quantitative Finance. SIAM J. on Control and Optimization. SIAM J. on Financial Mathematics. SIAM J. on Optimization. Stochastic Analysis and Applications. Stochastic Processes and Applications. System and Control Letters.

L) Books

One Research Survey Book:

"Stochastic Optimal Control in Infinite Dimensions: Dynamic Programming and HJB Equations",

by G. Fabbri, F. Gozzi and A. Swiech, with Chapter 6 by M. Fuhrman and G. Tessitore.

Springer series on "Probability Theory and Stochastic Modelling", Vol 82, 2017.

Two Books of exercises for first year students of economics (in Italian).

M) Didactical activity. FG has given various kind of courses (many of them in Italian, some of them in English):
– exercises of "Calculus I and II" in Faculty of Sciences (Pisa),
– courses (lectures and exercises) of "Basic Calculus" in Faculty of Economics (Pisa, Roma "La Sapienza" and Luiss),
– courses of "Mathematical methods for economics" in Faculty of Economics (Pisa, Roma "La Sapienza", Luiss, Catania, scuola Sant'Anna, also in English),
– courses of "Probability and Statistics" in Faculty of Engineering (Pisa),
– courses of "Control theory and applications to economics" for students of mathematics' degree (Pisa, Politecnico di Milano),
– courses of "Dynamic Optimization and Applications" for master and PHD programs in Economics and Mathematics for Economics (Masters and PHD programs in Mathematics, Economics, Engineering at: Pisa, Roma "La Sapienza", Luiss, Napoli Parthenope, Scuola Sant'Anna, Roma "Tor Vergata", University of York, Politecnico di Torino, Athens University of Economics and Business, also in English)
– course of "Principles of Mathematics for Economics and Finance" in "Scuola Matematica Interuniversitaria di Perugia" August 2001.

– course (shared with other people) "Decisions in situations of complexity and conflict" at the University of Pisa, since 2017 (students of Peace Studies and of Data Science).

N) Citations (December 23, 2021)

– MathSciNet: 713 citations by 400 authors; h-index 15

– Google Scholar: 2342 citations (970 since 2016); h-index 30 (18 since 2016); i 10-index 63 (35 since 2016).

– Scopus: 906 citations by 534 documents; h-index 18.

O) PUBLICATIONS

FG has published more than 70 papers in international journals in: pure and applied mathematics, economics, quantitative finance, operations research, probability. Among them:

– (Pure and Applied Math): *Communications in Pure and Applied Mathematics, Archives for Rational Mechanics and Analysis, SIAM Journal of Control and Optimization, Journal of Differential Equations, Journal of Functional Analysis, Communications in PDE, Applied Mathematics and Optimization.*

– (Economics): *Journal of Economic Theory, Economic Theory, Journal of Economic Dynamics and Control, Journal of Mathematical Economics, Journal of Economic Geography, Games and Economic Behavior.*

– (Quantitative Finance): *Mathematical Finance, Finance and Stochastics.*

– (Operations Research): *European Journal of Operations Research, Annals of Operations Research.*

– (Probability): *Annals of Probability, Annals of Applied Probability, Stochastic Processes and Applications.*

15 October 2021

- **Visitors to this site**

Confindustria

Accedi
Feed RSS