Davide La Torre
SHORT CURRICULUM VITAE

GENERAL INFORMATION

FAMILY NAME	LA TORRE
NAME	DAVIDE
DATE OF BIRTH	14/09/1974

EDUCATION:

01/2002 *PhD in Computational Mathematics and Operations Research*, University of Milan, Italy.

07/1997 *Laurea in Mathematics* (combined 4 year program BSc+MSc, major in Applied and Industrial Mathematics, final grade: 110/110 magna cum laude), University of Milan, Italy.

07/1993 *Diploma in Computer Science* (final grade: 60/60), ITIS, Varese, Italy.

HABILITATIONS/QUALIFICATIONS:

08/2018 Habilitation/Qualification as Full Professor in Political Economy (Scientific Sector 13/A2)

07/2018 Habilitation/Qualification as Full Professor in Public Economics (Scientific Sector 13/A3)

01/2014 Habilitation/Qualification as Full Professor in Mathematical Methods for Economics and Finance (Scientific Sector 13/D4).

PROFESSIONAL CERTIFICATES:

12/2017 Online Professional Certificate in *Supply Chain Analytics*, Centre for Transportation and Logistics, Massachusetts Institute of Technology, USA.

11/2017 Online Professional Certificate in *Big Data and Social Physics*, Media Lab, Massachusetts Institute of Technology, USA.

11/2017 Online Professional Certificate in *Project Management*, University of Adelaide, Australia.

RESEARCH INTERESTS:

My research program could be classified under the general title of "Mathematical Modeling in Economics, Finance, and Management" and include Economics Dynamics, Multicriteria Decision Making, Operations Management, Portfolio Optimization.

BIBLIOMETRICS:

- ➢Number of Scopus publications: 137
- ➢Number of MathSciNet publications: 102
- ➢Number of WoS publications: 102
- ➢Number of publications in A-ranked journals: 30
- ➢Scopus H-Index: 16

MAIN RECENT PUBLICATIONS:

[1]For a more complete list please visit my Scopus page

1. A stochastic dynamic multiobjective model for sustainable decision making (2018) – in press – *Annals of Operations Research* (with F.Ben Abdelaziz, C.Colapinto, D.Liuzzi), 10.1007/s10479-018-2897-9.
2. Fractal Attractors in Economic Growth Models with Random Pollution Externalities (2018) –28, 5, 055916 – *Chaos* (with S.Marsiglio, F.Privileggi).
3. Economic Growth and Abatement Activities in a Stochastic Environment: a Multi-Objective Approach (2018) – 267, 321-334 – *Annals of Operations Research* (with S. Marsiglio).
4. Portfolio optimization under partial uncertainty and incomplete information: a probability multimeasure-based approach (2018) – 267, 267-279 – *Annals of Operations Research* (with F.Mendivil).
5. Fractal Attractors and Singular Invariant Measures in Two-Sector Growth Models with Random Factor Shares (2018) – 58, 1, 185-201 – *Communications in Nonlinear Science and Numerical Simulation* (with F.Mendivil, S.Marsiglio, F.Privileggi), 10.1016/j.cnsns.2017.07.008.
6. Stochastic linear optimization under partial uncertainty and incomplete information using the notion of probability multimeasure (2017) – in press – *Journal of the Operational Research Society* (with F.Mendivil), 10.1057/s41274-017-0249-9.
7. A Weighted Goal Programming model for planning sustainable development applied to Gulf Cooperation Council Countries (2017) – 185, 1931-1939 – *Applied Energy* (with R. Jayaraman, C.Colapinto, T.Malik).
8. Pollution Control under Uncertainty and Sustainability Concern (2017) – 67, 4, 885-904 - *Environmental and Resource Economics* (with D.Liuzzi, S.Marsiglio).
9. Pollution Diffusion and Abatement Activities across Space and over Time (2015) - 78, 48-63 – *Mathematical Social Sciences* (with D.Liuzzi, S.Marsiglio).
10. Self-Similar Measures in Multi-Sector Endogenous Growth Models (2015) - 79, 40-56 - *Chaos, Solitons, and Fractals* (with S.Marsiglio, F.Mendivil, F.Privileggi).
11. Multi-criteria model for sustainable development using goal programming applied to the United Arab Emirates (2015) - 87, 447-454 - *Energy Policy* (with R.Jayaraman, C.Colapinto, T.Malik).
12. Portfolio Management through Goal Programming: State-of-the-art (2014) - 234, 2, 536-545 – *European Journal of Operations Research* (with B.Aouni, C.Colapinto).
13. Optimal bayesian sequential sampling rules for the economic evaluation of health technologies (2014) - 177, 2, 419-438 - *Journal of the Royal Statistical Society A* (with M.Forster, P.Pertile).
14. Optimal control of inequality under uncertainty (2014) -68, 53-59 - *Mathematical Social Sciences* (with M.Forster, P.Lambert).

15. A cardinality constrained goal programming model with satisfaction function for venture capital investment decision making (2013) - 205, 1, 77-88 - *Annals of Operations Research* (with B.Aouni, C.Colapinto).
16. Population growth and utilitarian criteria in the Lucas-Uzawa model (2012) - 29, 4, 1197-1204 – *Economic Modeling* (with S.Marsiglio)
17. Government spending and growth in second-best economies (2012) - 29, 654-663 - *Economic Modeling* (with A.Bucci, M.Florio).
18. Stochastic technology shocks in an extended Uzawa-Lucas model: closed-form solution and long-run dynamics (2011) - 103, 1, 83-99 - *Journal of Economics* (with A.Bucci, C.Colapinto, M.Forster).
19. Arcwise cone-quasiconvex multicriteria optimization (2010) - 38, 143-146 - *Operations Research Letters* (with N.Popovici).
20. A generalized stochastic goal programming model (2010) - 215, 4347-4357 - *Applied Mathematics and Computation* (with B.Aouni).
21. On a spatial Solow-model with technological diffusion and nonconcave production function (2010) - 11, 5, 3858-3876 - *Nonlinear Analysis Real World Applications* (with V.Capasso, R.Engbers).
22. Endogenous technological progress in a multi-sector growth model (2010) - 27, 5, 1017-1028 – *Economic Modeling* (with S.Marsiglio).

MAIN INVITED PRESENTATIONS:
- JP Jain Business School, Dubai, June 2018.
- Dubai Business School, Dubai, April 2018.
- The 2017 AMMCS Congress, Minisymposium on Inverse Problems, Waterloo, August 2017.
- ICNAAP Conference, Minisymposium on Inverse Problems, La Rochelle, France, July 2016.
- The 2015 AMMCS-CAIMS Congress, Minisymposium on Inverse Problems, Waterloo, June 2015.
- Workshop on Optimal Decision Making in Economics, Healthcare, and Sustainable Ecosystems, Khalifa University, Abu Dhabi, UAE, December 2014.
- ICMFII 2013, University of Bahrain, Bahrain, November, 2013.
- Workshop on Shape and Size in Medicine, Biotechnology, Materials Science and Social Sciences, Department of Mathematics, University of Milan, February 2011.
- Department of Mathematics, University of Milan, Italy, June 2010.
- Spatial Structures in Geographical Economics, MAF (Mathematical and Statistical Methods for Actuarial Sciences and Finance) 2010, Ravello, Italy, April 2010.

MAIN CO-ORGANIZED CONFERENCES, WORKSHOPS, and SESSIONS:
- The 8th International Conference on Modeling, Simulation, and Applied Optimization (ICMSAO'19), April 15-17, 2019, Bahrain, Kingdom of Bahrain (member of the Scientific Committee), http://icmsao.uob.edu.bh/scientific-committee/.
- The International Conference on Multidimensional Finance, Insurance and Investment (ICMFII2018), May 10-12, 2018, Chania, Crete, Greece (member of the Scientific Committee), http://icmfii.com/?page_id=410.

- The International Conference on Multiple Objective Programming and Goal Programming (MOPGP2017), Metz, France, October 2017 (member of the Scientific Committee), http://mopgp.org/?page_id=23.
- The International Conference on Multidimensional Finance, Insurance and Investment (ICMFII2016), Universitat Politecnica de Valencia-Campus de Alcoy, Spain, June 2016 (member of the Scientific Committee).
- The International Conference on Multiple Objective Programming and Goal Programming (MOPGP2015), Tlemcen, Algeria, December 2015 (member of the Scientific Committee).
- The Second International Conference on Multidimensional Finance, Insurance and Investment (ICMFII 2013), Bahrain, November 2013(member of the Scientific Committee).
- The 5th International Conference On Modeling, Simulation And Applied Optimization (ICMSAO 13), Hammamet, Tunisia, April 2013 (member of the Scientific Committee).

REFEREE and REVIEWER:
- Reviewer for the American Mathematical Society (AMS), 2002-present.
- Referee for many leading international journals including: Communications in Nonlinear Science and Numerical Simulation, Computers and Mathematics with Applications, Economic Modeling, European Journal of Operations Research, International Transaction in Operations Research, Journal of Computational and Applied Mathematics, Journal of Mathematical Analysis and Applications, Journal of Mathematical Biology, Journal of Multi-criteria Decision Analysis, Journal of Economics, Nonlinear Analysis Real World Application, Numerical Algorithms, Omega, SIAM Journal on Optimization.
- Reviewer for the Chile National Fund for Scientific and Technological Development (Fondecyt), the Austrian Science Fund (FWF), and the American University of Sharjah (UAE).

RECENT AWARDS, GRANTS, and SCHOLARSHIPS:
- Research Scholarship, University of Granada, Spain, 2017.
- Nazarbayev University Research Grant, Nazarbayev University, Astana, Kazakhstan, 2017.
- Faculty Excellence Award 2015 for Outstanding Research, Khalifa University, UAE, 2015.
- DEMM (Department of Economics, Management, and Quantitative Methods) Research Award, University of Milan, Italy, 2015.
- Khalifa University KUIRF Level 2 (co-principal investigator), Khalifa University, UAE, 2013.
- GENIL (Granada Excellence Network of Innovation Laboratories) Scholarship, University of Granada, Granada, Spain, 2012.
- Research Scholarship, Australian National University, Canberra, Australia, 2012.
- Research Scholarship, University of York, York, UK, 2011.
- ERASMUS Scholarship, University of Milan, Milan, Italy, 2010.
- PRIN Funds (principal investigator), University of Milan, Milan, Italy, 2000 - 2009.

TEACHING DOSSIER:

Since 1997, I have taught many courses in applied analysis, applied mathematics, operations research, and I have acquired a quite lengthy and consolidated teaching experience in several Italian (Bocconi University, Insubria University, Polytechnic University of Milan, the University of Milan, the University of Milan-Bicocca, the University of Bozen), European (the University of York, UK) and non-European Universities (Khalifa University, UAE; Laurentian University, Canada; Nazarbayev University, Kazakhstan; the University of Dubai, UAE; the University of Waterloo, Canada; and the University of Guelph, Canada), at undergraduate, graduate and PhD level. My teaching portfolio is as follows.

PhD Courses:
Differential Equations, Fractal Analysis, Optimization, Optimal Control, Stochastic Dynamic Optimization, Decision Theory, Game Theory.

Graduate Courses:
Engineering Mathematical Analysis, Advanced Calculus for Economics, Differential Equations, Mathematical Methods and Modelling, Mathematical Methods for Finance, Portfolio Optimization, Optimization Methods, Optimal Control Theory, Research Methods, Theories and Techniques of Optimization, Foundations and Training of Mathematics.

MBA Courses:
Operations Management, Research Methods, Data Analytics for Management, Introduction to Management Science, Statistics for Management.

Undergraduate Courses:
Applied Engineering Mathematics, Real Analysis and Probability, Complex Variables and Transforms, Differential Equations and Applications, Linear Algebra and Differential Equations, Stochastic Differential Equation, Optimal Control Theory, Forecasting and Time Series, Engineering Statistics, Stochastic Processes, Calculus for Economics and Social Sciences, Calculus for Economics and Finance, Financial Engineering, Operations Research II, Operations Research I, Laboratory of Operations Research, Operations Management, Simulation Modeling and Analysis, Supply Chain and Logistics, Quantitative Methods, Business Statistics.

STUDENT ADVISING:

Since 2000, I have supervised and co-supervised many undergraduate and graduate students. Involvement with PhD students and PostDocs is detailed in the following table.

	PhD	PostDocs
Supervised	3	2
Cosupervised	3	1
Member of the Advisory Committee/PhD Defence Committee	4	0

I supervised/co-supervised the following PhD Theses:

Dr. Liuzzi, Danilo
PhD in Economic Sciences, 2015, University of Milan, Italy.

PhD Thesis title: Essays on Spatial Environmental Economics and Resource Allocation (in English)
Supervisor: Davide La Torre, Co-supervisor: Simone Marsiglio.

Dr. Demers, Matthew
PhD in Applied Mathematics, 2012, University of Guelph, Ontario, Canada.
PhD Thesis title: Fractal Imaging Theory and Applications beyond Compression (in English)
Supervisor: Herb Kunze, Co-supervisor: Davide La Torre.

Dr. Levere, Kimberly
PhD in Applied Mathematics, 2012, University of Guelph, Ontario, Canada.
PhD Thesis title: A Collage-Based Approach to Inverse Problems for Nonlinear Systems of Partial Differential Equations (in English)
Supervisor: Herb Kunze, Co-supervisor: Davide La Torre.

Dr. Ricci, Elena Claire
PhD in Economic Sciences, 2012, University of Milan, Italy.
PhD Thesis title: The Economic and CO_2 Mitigation Potential of the Innovation of the Power Network. A Multi-Dimensional Analysis of Super-Grids and Smart-Grids (in English)
Supervisor: Bosello Francesco, Co-supervisor: Davide La Torre.

Dr. Marsiglio, Simone
PhD in Economic Sciences, 2011, University of Milan, Italy.
PhD Thesis title: Essays on Economic Growth: Technical Progress, Population Dynamics and the Environment (in English)
Supervisor: Davide La Torre, Co-supervisor: Marzio Galeotti.

Dr. Orsi, Luigi
PhD in Business History and Management, 2009, University of Milan, Italy.
PhD Thesis title: Operational Risk Management: Fractal Estimation and Simulation of Operational Losses (in Italian)
Supervisor: Davide La Torre, Co-supervisor: Luciano Pilotti

SERVICE ACTIVITIES:
Over the years I have served on several committees and partecipated in faculty service activities including mentoring and recruitment.

KNOWLEDGE OF LANGUAGES:
Italian, English, French.

KNOWLEDGE OF SOFTWARES:
Matlab, Maple, C, Phyton, Lingo, AMPL, Comsol.