Curriculum Vitae December 2009

Manfred Gilli

Born December 9th 1942, Meran (Italy)
Italian citizen
married (two children)

Academic career

since 2008	Professor honoraire, University of Geneva.
1993-08	Professor at the Department of Econometrics, University of Geneva and Swiss Finance Institute.
2002	Visiting professor at the School of Finance and Economics, University of Technology, Sydney.
1985	Invited professor at the Department of Management Science of Hiroshima Shudo University, Japan.
1982-92	Maître d'enseignement et de recherche at the Department of Econometrics, University of Geneva.
1982	Invited researcher at the Corporate Economics Department of IBM at Armonk, New York.
1981	Invited researcher at the Center for Computational Research in Economics and Management Science at the Massachusetts Institute of Technology.
1979-82	Maître-assistant at the Department of Econometrics, University of Geneva.
1978	Doctorat ès sciences économiques et sociales, mention économétrie et statistique, Geneva.
1974	Diplôme en économétrie, University of Geneva.
1970	Licence ès sciences économiques et commerciales, HEC, University of Lausanne.

Research activities

Computational methods in economics and finance (implementation and empirical validation), Heuristic optimization, Model selection, Parallel computing.

Scientific committees

Team leader of Marie-Curie Research- and Training Network 'Computational Optimization Methods in Statistics, Econometrics and Finance´ (`http://comisef.eu`)
Member of the advisory board of *Computational Statistics & Data Analysis*
Member of the editorial board of *Computational Economics*
Member of the editorial boards of the Springer book series on *Advances in Computational Economics* and *Advances in Computational Management Science*.
President of the *Society for Computational Economics* (2006–2007). `http://comp-econ.org/`

Publications and working papers (since 1990)

- 'Risk–Reward Optimisation for Long-Run Investors: an Empirical Analysis´, (forthcoming *European Actuarial Journal*, former *Blätter der DGVFM*), (with E. Schumann)
- 'Constructing 130/30-Portfolios with the Omega Ratio', `http://ssrn.com/abstract=1464798` (forthcoming, Journal of Asset Management), (with E. Schumann, G. di Tollo, G. Cabej)
- 'Robust Regression with Optimisation Heuristics', COMISEF Working Paper Series No. 011, `http://comisef.eu/files/wps011.pdf`, (forthcoming in: A. Brabazon; M. O'Neill; D. Maringer (eds). *Natural Computing in Computational Finance*, Volume 3, Springer, 2010, (with E. Schumann)
- 'Portfolio Optimization with "Threshold Accepting": a Practical Guide', in: S. Satchell (ed). 'Optimizing Optimization: The Next Generation of Optimization Applications and Theory', Elsevier, 2009, (with E. Schumann)
- 'Optimal Enough?', COMISEF Working Paper Series No. 010, `http://comisef.eu/files/wps010.pdf`, (with E. Schumann)
- 'An Empirical Analysis of Alternative Portfolio Selection Criteria', Swiss Finance Institute Research Paper No. 09-06, `http://ssrn.com/abstract=1365167`, (with E. Schumann)
- 'Constructing Long/Short Portfolios with the Omega Ratio', Swiss Finance Institute Research Paper No. 08-34, `http://ssrn.com/abstract=1289269`, (with E. Schumann, G. di Tollo, G. Cabej)
- 'Heuristic Optimisation in Financial Modelling', COMISEF Working Paper Series No. 007, `http://comisef.eu/files/wps007.pdf`, (with E. Schumann)
- 'Implementing Binomial Trees', COMISEF Working Paper Series No. 006, `http://comisef.eu/files/wps006.pdf`, (with E. Schumann)
- 'Distributed Optimisation of a Portfolio's Omega', Swiss Finance Institute Research Paper No. 08-17, `http://ssrn.com/abstract=1156355`, (forthcoming, Parallel Computing), (with E. Schumann)

- ‘Heuristic Optimization Methods in Econometrics´, in: D.A. Belsley and E. Kontoghiorghes (eds). *Handbook of Computational Econometrics*, Wiley, 2009. (with P. Winker).
- ‘Predicting Risk in a Multiple Stimulus-Reward Environment´, in: J.-C. Dreher, L. Tremblay (eds). *Handbook of Reward and Decision Making*, Elsevier, 2009. (with M. d'Acremont and P. Boessaert).
- ‘Applications of Heuristics in Finance´, in: D. Seese, C. Weinhardt and F. Schlottmann (eds). *Handbook of Information Technology in Finance*, Springer, 2008, 635-653, (with D. Maringer and P. Winker).
- Using economic and financial information for stock selection. *Computational Management Science*, 5, 317–335, 2008, (with I. Roko).
- An Objective Function for Simulation Based Inference on Exchange Rate Data. *Journal of Economic Interaction and Coordination* **2**(2), 125–145, 2007, (with P. Winker and V. Jeleskovic).
- An efficient branch-and-bound strategy for subset Vector Autoregressive model selection. *Journal of Economic Dynamics and Control*, 32(6), 1949–1963, 2007, (with C. Gatu, E. Kontoghiorghes and P. Winker).
- A Data-Driven Optimization Heuristic for Downside Risk Minimization. *The Journal of Risk*, 8(3), 2006, 1–18, (with E. Këllezi and H. Hysi).
- An Application of Extreme Value Theory for Measuring Financial Risk. *Computational Economics*, 27(2-3), 2006, 207–228, (with E. Këllezi).
- Applications of optimization heuristics to estimation and modelling problems. *Computational Statistics and Data Analysis*, 47, 2004, 211–223, (with P. Winker).
- A Global Optimization Heuristic for Estimating Agent Based Models. *Computational Statistics and Data Analysis*, 42, 2003, 299–312, (with P. Winker).
- Solving finite difference schemes arising in trivariate option pricing. *Journal of Economic Dynamics and Control* 26, 2002, 1499–1515, (with E. Këllezi and G. Pauletto)
- The Threshold Accepting Heuristic for Index Tracking. In *Financial Engineering, E-Commerce and Supply Chain*, (Eds. P. Pardalos and V.K. Tsitsiringos), 1–18, 2002, Kluwer Applied Optimization Series, (with E. Këllezi).
- Portfolio Optimization with VaR and Expected Shortfall. In *Computational Methods in Decision-making, Economics and Finance*, (Eds. E.J. Kontoghiorghes, B. Rustem and S. Siokos), 167–183, 2002, Kluwer Applied Optimization Series, (with E. Këllezi).
- Indirect Estimation of the Parameters of Agent Based Models of Financial Markets. FAME Research Paper 35, 2001, (with P. Winker).
- Extreme Value Theory for Tail-Related Risk Measures. FAME Research Paper 18, 2000, (with E. Këllezi).
- Parallel Krylov Methods for Econometric Model Simulation. *Computational Economics* 16, 2000, 173–186, (with G. Pauletto).
- Using Catastrophe-Linked Securities to Diversify Insurance Risk: A Financial Analysis of Cat-Bonds. *The Journal of Insurance Issues* 2, 1999, 125–146, Donald Hardegree Memorial Outstanding Paper Award, (with H. Loubergé and E. Këllezi).
- Modelling and forecasting the social contributions to the Swiss Old Age and Survivor Insurance Scheme. *Swiss Journal of Economics and Statistics* 3, 1999, 349–368, (with G. Aeschimann, G. Antille, F. Carlevaro, J.-P. Chaze, G. Ferro-Luzzi, Y. Flückiger).
- Krylov Methods for Solving Models with Forward-Looking Variables. *Journal of Economic Dynamics and Control* 22, 1998, 1275–1289, (with G. Pauletto).
- Sparse Direct Methods for Model Simulation. *Journal of Economic Dynamics and Control* 21, 1997, 1093–1111, (with G. Pauletto).
- Matchings, Covers, and Jacobian Matrices. *Journal of Economic Dynamics and Control* 20, 1996, 1541–1556, (with M. Garbely).
- Graph theory-based tools in the practice of macroeconometric modelling. In *Methods and Applications of Economic Dynamics*, (Eds. L. Schoonbeek, E. Sterken and S.K. Kuipers), Series: Contributions to Economic Analysis, North Holland, 1995, 89–114.
- Econometric Model Simulation on Parallel Computers. *Internat. J. Supercomput. Appl.* 7, 1993, 254–264, (with G. Pauletto).
- Causal Ordering and Beyond. *International Economic Review* 33, 1992, 957–972.
- Equation Orderings for Iterative Processes – A Comment. *Computer Science in Economics and Management* 2, 1992, 147–153, (with M. Garbely and G. Pauletto).

- Qualitative Decomposition of the Eigenvalue Problem in a Dynamic System. *Journal of Economic Dynamics and Control* 15, 1991, 539–548, (with M. Garbely).
- Qualitative Solvability in Economic Models. *Computer Science in Economics and Management* 4, 1991, 285–301, (with P. Fontaine and M. Garbely).
- A Comment: On the Number of Nonzero Eigenvalues of a Dynamic Linear Econometric Model. *Empirical Economics* 15, 1990, 99–104, (with M.Garbely).
- How to Strip a Model to its Essential Elements. *Computer Science in Economics and Management* 3, 1990, 199–214, (with G. Gallo).

Books and special issues

- Numerical Methods and Optimization in Finance, Elsevier, in preparation, (with D. Maringer and E. Schumann)
- Editorial – 2nd special issue on applications of optimization heuristics to estimation and modelling problems. *Computational Statistics and Data Analysis* 52(1), 2–3, 2007, (with P. Winker).
- Guest editor for the special issue on *Applications of optimization heuristics to estimation and modelling problems* in *Computational Statistics and Data Analysis*, 47(2), 211–400, 2004, (with P. Winker).
- *Computational Economic Systems. Models, Methods and Econometrics*, Series: Advances in Computational Economics, Kluwer Academic Publishers, 1995, 287 pages, (editor).
- Guest editor for the special issue on *Computational Finance* in the journal *Computational Economics* 9, 1996, (with A. Nagurney).

Conferences oganized

- 6th International Conference on Computational Management Science, 1–3 May 2009. (`www.cms2009.unige.ch/`)
- 4th International Conference on Computational Management Science, 20–22 April 2007. (`www.cms2007.unige.ch/`)
- 2nd International Conference on Computing in Economics and Finance, 26–28 June 1996. (`www.unige.ch/ce/ce96/`)