STEFANO BACCARIN

CURRICULUM VITAE

Education

1984 Graduate Degree in Economics (grade 110/110 cum laude), Università Bocconi, Milan, Italy.
1996 PhD in Applied Mathematics, Università di Trieste, Trieste, Italy.
Thesis Title: "Mathematical models of Cash Management".

Professional Activities

1986-1987 Systems analyst in the Commercial Division of IBM Italia.
1987-1988 Computer analyst in the Information Systems Division of 3M Italia.
1988-1992 Project leader in the Information Systems Division of R. Bosch Italia.
1996-1999 Lecturer, Università Bocconi, Istituto di Metodi Quantitativi.
1999-current Assistant Professor, Università di Torino, Dipartimento di Scienze Economico-Sociali e Matematico-Statistiche.

Teaching

Courses at the University of Turin.
Matematica Generale: a.y. 1999/2010-2013/2014.
Matematica Finanziaria: a.y. 1999/2000-2001/2002, 2017-2018-present.
Matematica per le applicazioni economiche e finanziarie: a.y. 2001/2002-2011/2012.
Mathematics for Business: a.y. 2014/2015-2016/2017.
Matematica per l'azienda: a.y. 2017-2018-present.

Courses at the University L. Bocconi of Milan.
Matematica generale: a.y. 1996/1997-1999/2000.

Courses at the IAE Nice Graduate School of Management, University of Nice-Sophia Antipolis.
Business Statistics 2: a.y. 2010/2011-2015/2016.
Portfolio Management: a.y. 2013/2014-2014/2015.
Investment and Portfolio Management: a.y. 2014/2015-present.

Current research interests

Optimal control of stochastic processes.
Partial differential equations, variational and quasi-variational inequalities related to optimal control problems.
Numerical procedures to solve stochastic control problems.
Portfolio optimization and optimal replication of derivative products under transaction costs.

Articles in refereed journals

"Existence of an infinite-horizon optimal impulse consumption of a geometric brownian motion with variable coefficients", Dynamics of Continuous, Discrete and Impulsive Systems, Series A: Mathematical Analysis, 23, 399-427, 2016.
"Passive portfolio management over a finite horizon with a target liquidation value under transaction costs and solvency constraints",

Ima Journal of Management Mathematics, 27, 471-504, 2016, with Daniele Marazzina.
"Optimal impulse control of a portfolio with a fixed transaction cost", Central European Journal of Operations Research, 22, 355-372, 2013, with Daniele Marazzina.
"Optimal impulse control for a multidimensional cash management system with generalized cost functions", European Journal of Operational Research, 196, 198-206, 2009.
"Optimal impulse control on an unbounded domain with nonlinear cost functions", Computational Management Science 3(1), 81-100, 2006, with Simona Sanfelici.
"Optimal impulse control for cash management with quadratic holding-penalty costs", Decisions in Economics and Finance 25, 19-32, 2002.

Contributions in books

"A new linear programming formulation for the capital rationing problem" in Constantin Zopounidis (editor), New operational approaches for financial modelling, 233-244, Physica-Verlag, 1997.

Conference proceedings

"Alcune osservazioni sui sistemi lineari di produzione", XVII Convegno AMASES, Ischia, September 1993.
"A new linear programming formulation for the capital rationing problem", 19th Meeting of the EURO Working Group on Financial
Modelling, Chania, Grecia, November 1996.
"Optimal impulse control for cash management with quadratic holding-penalty costs", 27th Meeting of the EURO Working Group on Financial
Modelling, New York, USA, November 2000.
"On the existence of an optimal policy for a problem of impulse control", 30th Meeting of the EURO Working Group on Financial
Modelling, Capri, May 2002.
"Optimal impulse control for a multidimensional cash management system with nonlinear cost functions", Third World Conference of the Bachelier Finance Society, Chicago, Illinois, USA, July 2004.
"Optimal impulse control of a diffusion process in Rn", 5th International Conference MASR, San Pietroburgo, Russia, July 2005.
"Optimal impulse control for a multidimensional cash management system with generalized cost functions", First Conference of Advanced Mathematical Methods for Finance, Side, Turchia, April 2006.
"Optimal consumption of a Geometric Brownian Motion with strictly positive intervention costs", 11th International Conference on Stochastic Programming, Vienna, Austria, August 2007.
"Optimal impulse control to maximize lifetime utility from consumption of a Geometric Brownian Motion with strictly positive intervention costs", Convegno PRIN Metodi Stocastici in Finanza, Torino, July 2008.
"Optimal lifetime consumption of a Generalized Geometric Brownian Motion with strictly positive intervention costs", XL Annual Conference of the Italian Operational Research Society , Siena, September 2009.
"Portfolio optimization over a finite horizon with fixed and proportional transaction costs and liquidity constraints", XIV Workshop on Quantitative Finance, Rimini, January 2013.

Refereeing

Central European Journal of Operations Research, European Journal of Operational Research, Ima Journal of Management Mathematics, Journal of Economic Dynamics & Control, Quantitative Finance.