



Martino Grasselli

Professore Associato Confermato, SSD SECS/S-06

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Università degli Studi di Padova

Dipartimento di Matematica

Via Trieste, 63 Padova, Italy

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and

Head of De Vinci Finance Group

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Pôle Universitaire Léonard de Vinci

92916 Paris La Défense, France

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and

Co-founder of Quanta Finanza s.r.l.

<http://www.quanta.finanza.com>

Education

Apr-2001

Ph.D in Quantitative Finance at Université Paris I – Panthéon - Sorbonne,

Dissertation: *Long-Term Portfolio Management: a Mathematical Finance Approach*

Supervisor: Prof. E. Jouini (Univ. Paris Dauphine)

Jan-1999

Ph.D. in Applied Mathematics at University of Trieste, Italy

Dissertation: *Pension Funds: Deterministic and Stochastic Approaches*

Supervisor: Prof. F. Rossi (University of Verona)

1998-2000

PhD Fellowship of CREST (Centre de Recherche en Economie & Statistiques), Ecole Nationale de la Statistique & de l'Administration Economique.

October 96-June 97

DEA Master courses in **Probability and Finance** at Université **Paris VI** (directed by N. El Karoui) and Troisième année at **ENSAE** (Ecole Nationale de la Statistique et de l'Administration Economique), Paris

Nov-1994

Bachelor in Mathematics at **University of Padova**

Dissertation: *Financial-project valuation models under different market conditions*

Supervisor: Prof. B. Viscolani (Univ. of Padova)

Visiting and Teaching Appointments

Dec-2016

Visiting Professor at University of Technology, Sydney, School of Finance and Economics

Dec-2015

Visiting Professor at University of Technology, Sydney, School of Finance and Economics

Dec-2014

Visiting Professor at University of Technology, Sydney, School of Finance and Economics

Nov-2013

Habilitation for the Full Professor Degree in Italy (Score: Excellent, top 1%) for SECS-S/06

Since Sept-2013

Head of DeVinci Finance Group at Pôle Universitaire Léonard de Vinci, France

May-Jun2013

Visiting Professor at University of Paris Dauphine, France

Aug-Sept2011

Visiting Professor at University of Technology, Sydney, School of Finance and Economics

Since19-01-2005

Visiting Associate Professor at Ecole Supérieure d'Ingénieur Léonard de Vinci, Département des Mathématiques et Ingénierie Financière

Since28-12-2004

Professore Associato at Università di Padova, Department of Mathematics

2004-2005

Professeur Délégué at Ecole Supérieure d'Ingénieur Léonard de Vinci, Département des Mathématiques et Ingénierie Financière

2000-2004

Assistant Professor at University of Verona, Faculty of Economics

Feb-Jul 2003

Maître de Conférences Invité at Université d'Evry

Apr-Jun 2002

Professeur Vacataire at ESSEC, Finance Department

Apr-Jun2002

Professeur Vacataire at Ecole Supérieure d'Ingénierie Léonard de Vinci, Dept DER
Feb-Apr 2001

Professeur Vacataire at Ecole Supérieure d'Ingénierie Léonard de Vinci, Dept DER

Ph.D Courses, MBA, Executive Education, Consulting

2002-2004 Univ. Verona: Ph.D courses in Economics and Finance

2003 Univ. Verona: Master on Private Banking, organized by Cattolica Assicurazioni Verona

2008 Bloomberg (New York): Quants Seminar

2008 NATIXIS (Paris): Quants Seminar

2009 CUOA (Altavilla, Italy): Master Executive Education Day

2009-2010 AIPB (Associazione Italiana Private Banking, Milan, Italy): 20 Executive Education Days for Intesa-SanPaolo private bankers

2010- Courts of Treviso, Milano, Padova: Consulting as CTU (Consulente Tecnico d'Ufficio)

2013- Univ. Padova: Ph.D courses in Stochastic Volatility

2005- Co-founder Associate of Quanta Finanza s.r.l.: www.quantafinanza.com

Publications

Grasselli, M. (2016) "The 4/2 Stochastic Volatility Model ". *Mathematical Finance, forthcoming*. Available on SSRN at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2523635

Callegaro, G., Fiorin, L. and Grasselli, M. (2015) "Pricing via Quantization in Stochastic Volatility Models". *Quantitative Finance, forthcoming*. Available on SSRN at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2669734

Deelstra, G., Grasselli, M. and Van Weverberg, C. (2016) "The Role of the Dependence between Mortality and Interest Rates when pricing Guaranteed Annuity Options". . *IME Insurance: Mathematics and Economics*, 71, 205-219. Available at SSRN at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2667939

Grasselli, M., and G. Miglietta (2016) "A Flexible Spot Multiple-Curve Model" *Quantitative Finance*, 16(10), 1465-1477. Available on SSRN at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2424242

Grasselli, M., Marabel Romo, J. (2016) "Stochastic Skew and Target Volatility Options". *The Journal of Futures Markets*, 36(2), 174-193. **Prize for the best paper on Derivatives by the Spanish Finance Forum**. Available on SSRN at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2419211

Caldana, R., Fusai, G., Gnoatto, A. and M. Grasselli (2016) "General Closed-Form Basket Option Pricing Bounds". *Quantitative Finance*, 16(4), 535-554. Available on SSRN at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2376134

Da Fonseca, J., Gnoatto, A. and M. Grasselli (2015) “Analytic Pricing of Volatility-Equity Options within Affine Models: an Efficient Conditioning Technique”. *Operations Research Letters*, 43, 601-607. Available on SSRN at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2428628

Callegaro, G., Fiorin, L. and Grasselli, M. (2015) “Quantized Calibration in Local Volatility Models”, *Risk Magazine*, April. **Prize for the best paper by the AMASES Congress held in Padova, September 2015**. Available on SSRN at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2495829

Baldeaux, J., M. Grasselli and E. Platen (2015) “Pricing currency derivatives under the benchmark approach”. *Journal of Banking and Finance*, 53, 34-48. Available on SSRN at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2327316

Chiarella, C., Da Fonseca, J., Grasselli, M. (2014) “Pricing Range Notes within Wishart Affine Models”. *IME Insurance: Mathematics and Economics*, 58, 193-203. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2308636

Gnoatto, A. and M. Grasselli (2014) “An affine multi-currency model with stochastic volatility and stochastic interest rates.” *SIAM Journal of Financial Mathematics*, 5, 493-531. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2226499

Gnoatto, A. and M. Grasselli (2014) “The explicit Laplace transform for the Wishart process”. *Journal of Applied Probability*, 51, 640-656. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1885847

Da Fonseca, J., M. Grasselli and F. Ielpo (2014) “Estimating the Wishart Affine Stochastic Correlation Model using the Empirical Characteristic Function”. *Studies in Nonlinear Dynamics & Econometrics*, 18(3), 253-289. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1054721

De Col, A., A. Gnoatto and M. Grasselli (2013) “Smiles all around: FX joint calibration in a multi-Heston model”. *Journal of Banking and Finance*, 37(10), 3799-3818. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1982092

Da Fonseca, J., A. Gnoatto and M. Grasselli (2013) “A flexible matrix Libor model with smiles”. *Journal of Economic Dynamics and Control*, vol. 37, 774-793. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2027034

Grasselli, M. and L. Grosset (2012) “Allocazione ottimale per il Private Banking”. *Matematica e Impresa*, 2.

Gabay, D. and M. Grasselli (2012) “Fair Demographic Risk Sharing in Defined Contribution Pension Systems”. *Journal of Economic Dynamics and Control*, 36, 657–669. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1667579

Da Fonseca, J., M. Grasselli and F. Ielpo (2011) “Hedging (Co)Variance Risk with Variance Swaps”. *International Journal of Theoretical and Applied Finance*, 14, 899-943. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1102521

Da Fonseca, J. and M. Grasselli (2011) “Riding on the Smiles”. *Quantitative Finance*, 11, 1609-1632. Available at: <http://papers.ssrn.com/sol3/papers.cfm?abstractid=1663448>.

Grasselli, M. and A. Lanzavecchia (2011) “I nuovi piani di incentivazione Azionaria”. *Contabilità, Finanza e Controllo, Il Sole 24*, vol. 2, 130-139.

Grasselli M. and C. Tebaldi (2008). “Solvable Affine Term Structure Models”. *Mathematical Finance*, 18, 135-153. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1073259

Da Fonseca, J., M. Grasselli and C. Tebaldi (2008) “A Multifactor Volatility Heston Model”. *Quantitative Finance*, 8 (6), 591-604.

Da Fonseca, J., M. Grasselli and C. Tebaldi (2007) “Option pricing when correlations are stochastic: an analytical framework”. *Review of Derivatives Research*, 10, 151-180, Springer. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=982183

Grasselli M. and C. Tebaldi (2007). “Stochastic Jacobian and Riccati ODE in Affine Term Structure Models”. *Decisions in Economics and Finance*, 30(2), 95-108, Springer.

Grasselli M. (2005). “Sup-Convolution of HARA utility functions in the affine term structure”. *Decisions in Economics and Finance* vol. 28 (1), pp. 67-78, Springer.

M. Grasselli, (2004) “Méthodes récentes de gestion des fonds de retraite”. *Banque & Marchés*, 72, 34-46.

M. Grasselli, (2004) “A Stability Result for the HARA Class with Stochastic Interest Rates”. *Insurance: Mathematics and Economics*, 13, 45-56.

M. Grasselli, and C. Tebaldi (2004) “Bond Price and Impulse Response Function in the Balduzzi, Das, Foresi and Sundaram (1996) Model”. *Economic Notes* vol. 33, 359-374.

G. Deelstra, M. Grasselli and P.F. Koehl (2004) “Optimal Design of the Guarantee for Defined Contribution Funds”. *Journal of Economic Dynamics and Control*, 28, 2239-2260.

G. Deelstra, M. Grasselli and P.F. Koehl (2003) "Optimal Investment Strategies in the presence of a minimum guarantee". *Insurance: Mathematics and Economics*, 33, 189-207.

G. Deelstra, M. Grasselli and P.F. Koehl (2000) “Optimal Investment Strategies in a CIR Framework”. *Journal of Applied Probability*, 1, 1-15.

G. Deelstra, M. Grasselli and P.F. Koehl (1999) “Conditional Dominance Criteria: Definition and Application to Risk-Management”. *Insurance: Mathematics and Economics*, 25, 295-306.

M. Grasselli and B. Viscolani (1999) “On a financial project valuation model proposed by De Giuli and Magnani”, *Rendiconti per gli Studi Economici e Quantitativi*, Cafoscarina, Venezia, 92-107.

Monographs

Grasselli M. (2001). “La Gestion de Portefeuille à Long Terme: une Approche de Finance Mathématique”. PhD Dissertation. PARIS: Université de Paris I - Pantheon - Sorbonne (France).

Grasselli M. (1999). “Pension Funds: Deterministic and Stochastic Approaches”. PhD Dissertation. TRIESTE: Università degli Studi di Trieste (Italy).

Books

Buratto A., Grasselli M., Grosset L., Viscolani B. (2010). “Matematica Generale”. Libreria Progetto, Padova.

Preprints

Deelstra, G., Grasselli, M. and Van Weverberg, C. (2016) “Explosion time for some Wishart transforms”. Submitted, available on SSRN at:
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2542185

Gnoatto, A., M. Grasselli and E. Platen (2016) “A Penny Saved is a Penny Earned: Less Expensive Zero Coupon Bonds”. Submitted, available on SSRN at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2824564

Craddock, M. and M. Grasselli (2016) “Lie Symmetry Methods for Local Volatility Models“. Submitted, Available on SSRN at: https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2836817

PhD Students

Dr. L. Malachini (Univ. Verona, 2010)
Dr. A. Gnoatto (Univ. Padova, 2013)
Dr G. Miglietta (Univ. Padova, 2015)
Dr L. Fiorin (Univ. Padova, candidate)

Grants and Awards

1998-2000 Ph.D Fellow of CREST (Centre de Recherche en Economie & Statistiques),
1995-1998 Italian Government Ph.D. Fellow (Univ. Trieste)
2003 PRIN (Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale)
Fellow
2006 PRIN (Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale)
Fellow
2006 EUROPLACE Research Prize (with D. Gabay and D. Herlemont)
2009 PRIN (Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale)
Fellow
2010 Bruti-Liberati Foundation Fellow, University of Technology, Sydney
2013 PRAT (with G. Callegaro and T. Vargiolu)
2014 Finance Forum- Prize to the best paper on derivatives- Bolsas y Mercados
Españoles (Madrid)
2015 Prize for the best paper by the AMASES Congress held in Padova, September.

International conferences (plenary invited speaker)

12-2017 Quantitative Methods in Finance QMF2017 (Sydney, Australia)
08-2017 Mathematics in Finance 2017 International Conference (Cape Town, South
Africa)
05-2017 Second Paris-Asia Conference in Quantitative Finance (Suzhou, China)
12-2016 Quantitative Methods in Finance QMF2016 (Sydney, Australia)
11-2016 Mathematics and Finance: Research in Options (Rio de Janeiro, Brazil)
12-2015 Quantitative Methods in Finance QMF2015 (Sydney, Australia)
12-2014 Quantitative Methods in Finance QMF2014 (Sydney, Australia)
12-2013 Quantitative Methods in Finance QMF2013 (Sydney, Australia)
02-2013 AFMathConf2013 (Brussels, Belgium)

06-2012 Bachelier Congress - Quantitative Methods in Finance QMF2012 (Cairns, Australia)
12-2010 Quantitative Methods in Finance QMF2010 (Sydney, Australia)
07-2010 EUROXXXII Conference (Lisboa, Portugal)
06-2009 Cubature methods in Finance (Leicester, UK)

Institutional responsibilities

Referee for *Journal of Mathematical Economics*
SIAM Journal of Control and Optimization
SIAM Journal of Financial Mathematics
Finance and Stochastics
Mathematical Finance
Applied Mathematical Finance
Revue Finance
Journal of Economic Dynamics and Control
Journal of Computational Finance
Journal of Applied Mathematics and Computation
Insurance: Mathematics and Economics
Quantitative Finance
International Journal of Theoretical and Applied Finance
Journal of Banking and Finance
Risk Magazine
European Journal of Finance
Journal of Risk and Insurance
Journal of Futures Market
Review of Derivatives Research

DIDATTICA

Come Ricercatore presso l'Università degli Studi di Verona (Facoltà di Economia e Commercio, 1999-2004)

- Matematica Generale (primo anno, corsi in italiano)
- Modelli stocastici per la finanza (quarto anno, corsi in italiano)
- Prodotti derivati (Master per il Private Banking, Cattolica Assicurazioni, corsi in italiano)
- Calcolo stocastico (PhD in Economics and Management, Univ. di Verona)

Come Professore Associato presso l'Università degli Studi di Padova (2005-oggi)

Facoltà di Economia

- Matematica generale (primo anno, corsi in italiano);
- Metodi matematici per l'Economia e la Finanza 2 (quarto anno, laurea magistrale in Banca e Finanza, corsi in italiano)
- Finanza quantitativa 2 (quinto anno, laurea magistrale in Banca e Finanza, corsi in italiano)

- Mathematical Tools for Economics and Finance 2 (Master1, corsi in inglese)
- Topics in Quantitative Finance (Master1, corsi in inglese)

Scuola di Scienze (laurea in Matematica)

- Analisi stocastica (quarto anno, corsi in italiano)
- Stochastic Volatility (PhD in Matematica Computazionale, corsi in inglese)
- Metodi stocastici per la finanza (quarto anno, corsi in inglese)

Scuola di Ingegneria (laurea magistrale in Mathematical Engineering)

- Stochastic methods for Finance (quarto anno, corsi in inglese, mutuato da Matematica)

Come Professore incaricato presso il Pole Universitaire Léonard de Vinci (2000-)

Ecole d'Ingenieurs ESILV

- Chaine de Markov (quarto anno, corsi in francese)
- Probabilité et statistique (terzo anno, corsi in francese)
- Calcul stochastique (quarto anno, corsi in francese)
- Modeles de diffusion en finance (quarto anno, corsi in francese)
- Diffusion models in Finance (quarto anno, corsi in inglese)
- Pricing and hedging of complex derivatives (quinto anno, corsi in inglese)
- Optimization de portefeuille (quarto anno, corsi in francese)
- Options, futures et swaps (quarto anno, corsi in francese)
- Calcul stochastique applique à la finance (Mastère Scientifique, corsi in francese)

Ecole de Commerce EMLV

- Statistique (primo anno, programma Restart, corsi in francese)

Come Professore incaricato presso l'ESSEC Business School (2002)

- Financial Markets and Financial Institutions (1 anno, corsi in francese)

Come Maître de Conférences Invité presso l'Univ. D'Evry (2002)

- Probabilité et statistique (terzo anno, corsi in francese)
- Mathématiques financières (secondo anno, corsi in francese)