

Alessandro Gnoatto PhD

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Nationality	Italian
Date of birth	04.04.1983

Work experience

09.2015 - now	BayernLB Sector: banking Position: front office quant/specialist counterparty credit risk management and CVA trading Activities: Computation of XVA for interest rate and FX derivatives. Quantitative development.
03.2012 - 08.2015	Mathematisches Institut der LMU München Sector: higher education Position: post-doc researcher Activities: research on advanced asset pricing models based on matrix-valued affine processes. Applications to the valuation of FX options, multiple-curve interest rate models, long-term yield, basket options, volatility products.
09.2011 - 02.2012	Prometeia Spa Sector: consulting Position: junior analyst Activities: production of the RiskSize (www.risksize.com) variance/covariance matrix, by employing the RiskMetrics methodology. Development of an FFT pricing framework under the Variance Gamma model.
03.2008 - 08.2008	Fonditaria-Sai Spa Sector: insurance-finance Position: internship in the derivatives front office. Collaboration with the group's derivatives manager. Activities: call overwriting, hedging of equity participations, creation of forward variance swap positions, analysis of index linked products, basis trading (CDS), stock lending. Creation of reports regarding the desk's activity.
06.2006 - 09.2006	Studio System Sector: business consulting Position: internship Activities: collaboration in the restructuring process of a customer's firm. Part of the activity took place in the customer's offices.

Education	
01.2009 - 11.2012	<p>University of Padua – Department of Pure and Applied Mathematics Qualification: Ph.D in Computational Mathematics</p> <p>Main subjects: research on advanced asset pricing models based on matrix-valued affine processes under the supervision of Prof. M. Grasselli and Prof. W. Runggaldier.</p>
09.2009 - 09.2011	<p>ETH (Swiss Federal Institute of Technology Zurich) – UZH (University of Zurich) Qualification: Master of Science in Quantitative Finance</p> <p>Main subjects: mathematical finance (courses by Prof. M. Schweizer, J. Teichmann, W. Farkas), numerical methods (PDE and Monte Carlo under Prof. C. Schwab), financial engineering (Prof. P. Vanini), credit risk (Prof. D. Coculescu).</p>
2003 - 2008	<p>University of Padua – Faculty of Economics Qualifications: Master in Banking and Finance</p> <p>Main subjects: mathematical finance, computational finance, statistics, microeconomics, macroeconomics, accounting, corporate finance.</p>
1997 - 2002	<p>ITCG „L. Einaudi“ Qualification: high school diploma in accounting and foreign languages</p> <p>Main subjects: economics and accounting, foreign languages, applied mathematics.</p>
Computer skills	
Operating Systems	Proficient in Mac OSX and Windows (up to XP). Basic knowledge of Linux Debian
Programming Languages	Proficient in Java (OOP) and Matlab/Octave. Basic knowledge of C++ (C-style) and VBA
Other	Proficient in Open Office/Libre Office/MS Office (Spreadsheets, Word Processing, Presentations), L ^A T _E X. Basic knowledge of Bloomberg, Datastream, HTML, SQL
Software projects	<ul style="list-style-type: none"> • Contributor to finmath, a Java library for quantitative finance (Fourier methods for European options). See http://www.finmath.net • Matrix functions toolbox: a full Java implementation of the matrix exponential and logarithm
Language skills	
English	<p>Reading skills: very good Writing skills: very good Oral skills: very good</p>
German	<p>Reading skills: very good Writing skills: very good Oral skills: good</p>
Spanish	<p>Reading skills: very good Writing skills: basic Oral skills: basic</p>

Peer reviewed publications

Title	A general HJM framework for multiple-curve modelling
Co-authors	C. Cuchiero and C. Fontana
Journal Info	Finance and Stochastics, Accepted (2015)
Title	General closed form basket option pricing bounds
Co-authors	R. Caldana, G. Fusai, and M. Grasselli
Journal Info	Quantitative Finance, Accepted (2015)
Title	Analytic pricing of volatility-equity option within Wishart-based stochastic volatility models.
Co-author	J. Da Fonseca and M. Grasselli
Journal Info	Operations Research Letters, Accepted. (2015)
Title	An affine multi-currency model with stochastic volatility and stochastic interest rates
Co-author	M. Grasselli
Journal Info	SIAM Journal on Financial Mathematics, 5(1) (2014) 493-531
Title	The explicit Laplace transform for the Wishart process
Co-author	M. Grasselli
Journal info	Journal of Applied Probability 51(3) (2014) 640-656
Title	Smiles all around: FX joint calibration in a multi-Heston model
Co-authors	A. De Col and M. Grasselli
Journal info	Journal of Banking and Finance 37(10) (2013) 3799-3818
Title	A flexible matrix Libor model with smiles
Co-authors	J. Da Fonseca and M. Grasselli
Journal info	Journal of Economic Dynamics and Control 37(4) (2013) 774-793
Title	The Wishart short rate model
Journal info	International Journal of Theoretical and Applied Finance 15(08) (2012)

Working papers

Title	The long-term Swap rate and a general analysis of long-term interest rates
Year	2015 - Submitted
Co-authors	F. Biagini, M. Härtel
Title	Affine HJM framework on S_d^+ and long-term yield
Year	2013 - Submitted
Co-authors	F. Biagini and M. Härtel
Title	Coherent foreign exchange market models
Year	2013 - Submitted

Work in Progress

Title	A hybrid FX-IR model under the benchmark approach
Co-authors	M. Grasselli and E. Platen
Title	Tractable affine models for multiple yield curve modeling
Co-authors	C. Cuchiero and C. Fontana

Invited Talks

Spread modeling in a general multiple-curve HJM framework
April 2015 - Challenges in Derivatives Markets - TU Munich

Interest rate modelling after the financial crisis
January 2015 - Nicola Bruti Liberati Quantitative Finance Lab - Politecnico di Milano

Interest rate modelling after the financial crisis
November 2014 - Prometeia SpA - Bologna

Coherent foreign exchange market models.
January 2014 - University of Florence - XV Workshop on Quantitative Finance.

An analytic multi-currency model with stochastic volatility and stochastic interest rates
September 2013 - Munich - CEQURA conference

Coherent foreign exchange market models.
April 2013 - ETH Zurich - Talks in financial and insurance mathematics.

A flexible matrix Libor model with smiles
July 2012 - Minneapolis - Siam Conference on Financial Mathematics and Engineering

A flexible matrix Libor model with smiles
June 2012 - München - Oberseminar Finanz und Versicherungsmathematik

A flexible matrix Libor model with smiles
June 2012 - Berlin

The Explicit Laplace Transform for the Wishart process
November 2011 - München

The Explicit Laplace Transform for the Wishart process
October 2011 - Padova - Seminario dottorato

A Multifactor Libor Market Model
September 2011 - Pisa - Convegno Amases

A Multifactor Libor Market Model
August 2011 - Ljubljana - Workshop on stochastic methods in financial markets

A Multifactor Libor Market Model
July 2011 - Istanbul - International conference on mathematical finance and economics 2011

A Multifactor Libor Market Model
June 2011 - Padova - Seminari di calcolo delle probabilità

Teaching activity

Computational finance
Summer Semester 2015 - München

Introduction to object oriented programming in Java for financial engineers
Summer Semester 2015 - München

Exercises for the lecture “Numerical methods for financial mathematics”
Summer Semester 2015 - München

Exercises for the lecture “Applied mathematical finance and its object-oriented implementation”
Winter Semester 2014/2015 - München

Computational finance
Summer Semester 2014 - München

Workshop on stochastic volatility and multi-curves (joint with J. Kienitz and C. Fries)
Summer Semester 2014 - München

Term structure models (Finanzmathematik 3)
Winter Semester 2013/2014 - München

Introduction to object oriented programming in Java for financial engineers
Winter Semester 2013/2014 - München

Computational finance
Summer Semester 2013 - München

Exercises for the lecture “Introduction to the LIBOR market model for the valuation of interest rate derivatives”
February/March 2013 - München

Exercises for the lecture “Numerical methods for financial mathematics”
Winter Semester 2012/2013 - München

Lévy and affine processes
Winter Semester 2012/2013 - München

Computational finance
Summer Semester 2012 - München

Exercises for the lecture “Applied mathematical finance: interest rate models”
Summer Semester 2012 - München

Matlab classes for “Matematica per l’economia e la finanza 2”
December 2011 - Padova

Special courses

22.08.2011 - 29.08.2011	Summer school in financial mathematics in Ljubljana Faculty: Prof. N. H. Bingham, Prof. A. Lipton, Prof. D. B. Madan, Prof. M. R. Pistorius, M. Urusov Main subjects: Lévy Processes, stochastic volatility models, financial modeling with jumps, SDE's.
21.05.2009 - 22.05.2009	Spring school in finance in Bologna Faculty: Prof. E. Eberlein – Prof. P. Tankov Main subjects: crash courses on financial modelling with jump processes.
2001 - 2002	Goethe Institut Qualification: B1 international certificate for the German language
2001 - 2002	Trinity college Qualification: Level 9 international certificate for the English language

Theses

Title	Wishart processes: theory and applications in mathematical finance
Type	Ph.D Thesis
Supervisors	Prof. M. Grasselli and Prof. W. Runggaldier
Title	Yield-curve shapes for affine processes on S_d^+
Type	Master thesis
Supervisor	Prof. J. Teichmann
Title	Calibration of the Heston model using variance swaps
Type	Master thesis
Supervisor	Prof. M. Grasselli

Refereeing activity

Journal of Banking and Finance
European Journal of Operational Research
Methodology and Computing in Applied Probability
Applied Mathematical Finance
Review of Derivatives Research
Asia-Pacific Financial Markets
Applied Mathematics and Computation
International Journal of Theoretical and Applied Finance