

# Curriculum Vitae Fabio Bellini

## Personal data and contacts

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## Academic Positions

(1/03/2015 - present) Full Professor of Mathematical Methods for Economics, Actuarial Sciences and Finance at the Department of Statistics and Quantitative Methods of the University of Milano-Bicocca.

(23/12/2004 - 28/2/2015) Associate Professor at the Department of Statistics and Quantitative Methods of the University of Milano-Bicocca.

(1/11/2000 - 22/12/2004) Assistant Professor in Mathematical Finance at the Department of Quantitative Methods of the University of Milano-Bicocca.

## Studies

(1/10/1996 - 31/12/1998) PhD in “Mathematics for the Analysis of Financial Markets” at the University of Brescia

(1/10/1988 - 30/3/1994) Laurea in Fisica at the University of Milan with 110/110 cum laude.

## Research interests

Mathematical Finance, Empirical Finance, Actuarial Mathematics, Operation Research, Mathematical Statistics.

## Publications

- [1] F. Bellini, M. Frittelli (2002) **“On the existence of minimax martingale measures”** *Mathematical Finance* vol. 12 n. 1 pp. 1-21
- [2] F. Bellini, E. Salinelli (2003) **“Independent component analysis and immunization: an exploratory study”** *International Journal of Theoretical and Applied Finance*, vol. 6 n. 7 pp. 721-738
- [3] F. Bellini, G. Figà-Talamanca (2004) **“Detecting and modelling tail dependence”** *International Journal of Theoretical and Applied Finance* vol. 7 n. 3 pp. 269-287
- [4] F. Bellini, G. Figà-Talamanca (2005) **“Runs test for assessing volatility forecastability in financial markets”** *European Journal of Operation Research*, vol. 163 Issue 1 pp. 102-114
- [5] F. Bellini, C. Caperdoni (2007) **“Coherent Distortion Risk Measures and Higher Order Stochastic Dominances”** *North American Actuarial Journal*, April Issue, pp. 35-42
- [6] F. Bellini, L. Bottolo (2007) **“Stationarity domains for  $\delta$ -power Garch process with heavy tails”** *Statistics & Probability Letters*, vol. 77, Issue 13, pp. 1418-1427
- [7] F. Bellini, G. Figà - Talamanca (2007) **“Conditional Tail Behaviour and Value at Risk”** *Quantitative Finance*, vol. 7, Issue 6, pp. 599-607
- [8] F. Bellini, E. Rosazza Gianin (2008) **“On Haezendonck risk measures”** *Journal of Banking and Finance*, vol.32, Issue 6, pp. 986-994
- [9] F. Bellini, E. Rosazza Gianin (2008) **“Optimal portfolios with Haezendonck risk measures”** *Statistics and Decisions*, vol. 26, Issue 2 pp. 89-108
- [10] F. Bellini, L. Bottolo (2009) **“Misspecification and domain issues in fitting Garch (1,1) models: a Monte Carlo investigation”** *Communications in Statistics – Simulation and Computation* vol. 38, Issue 1, pp. 31-45

- [11] L. Mercuri, F. Bellini (2011) “**Option pricing in a dynamic Variance - Gamma model**” *Journal of Financial Decision Making*, vol. 7, n.1 pp. 37-51
- [12] F. Bellini, C. Sgarra (2012) “**Convex ordering of Esscher and minimal entropy martingale measures for discrete time models**”, *Mathematical and Statistical Methods for Actuarial Science and Finance*, Perna, C., Sibillo, M. Editors, Springer ISBN 978-88-470-2341-3
- [13] F. Bellini (2012) “**Convex Comparison of Minimal Divergence Martingale Measures in Discrete Time Models**”, *Mathematical Methods in Economics and Finance*, vol. 7 n. 1 pp. 1-18
- [14] F. Bellini, E. Rosazza Gianin (2012) “**Haezendonck-Govaerts risk measure and Orlicz quantiles**”, *Insurance: Mathematics and Economics*, vol. 51, Issue 1, pp. 107-114
- [15] F. Bellini (2012) “**Isotonicity results for generalized quantiles**”, *Statistics and Probability Letters*, vol. 82 pp. 2017-2024
- [16] F. Bellini, B. Klar, A. Mueller, E. Rosazza Gianin, (2014) “**Generalized quantiles as risk measures**”, *Insurance: Mathematics and Economics* 54, pp. 41 – 48
- [17] F. Bellini, L. Mercuri (2014) “**Option pricing in a conditional Bilateral Gamma model**”, *Central European Journal of Operations Research*, vol. 22, Issue 2, pp. 373-390
- [18] F. Bellini, F. Pellerey, C. Sgarra, S. Yasaei Sekeh, (2014) “**Comparison Results for Garch Processes**”, *Journal of Applied Probability*, vol. 51 n. 3, pp. 685-698
- [19] F. Bellini, V. Bignozzi (2015) “**On elicitable risk measures**”, *Quantitative Finance*, vol. 15 n.5, pp. 725-733
- [20] F. Bellini, E. Di Bernardino (2017) “**Risk Management with Expectiles**”, *European Journal of Finance*, vol. 23, n. 6, pp. 487-506
- [21] F. Delbaen, F. Bellini, V. Bignozzi, J. Ziegel (2016) “**Risk measures with the CxLS property**”, *Finance and Stochastics* vol. 20 n.2 pp. 433-453
- [22] F. Bellini, Oya Ekin Kardeş, Mustafa Ç. Pınar (2016) “**Joint mixability of some integer matrices**” *Discrete Optimization* vol. 20, May 2016, pp. 90-104
- [23] F. Bellini, B. Klar A. Müller (2018) “**Expectiles, Omega Ratios and Stochastic Ordering**”, *Methodology and Computing in Applied Probability*, vol. 20(3) pp. 855–873
- [24] F. Bellini, R.J.A. Laeven, E. Rosazza Gianin (2018) “**Robust Return Risk measures**”, *Mathematics and Financial Economics* 12(1), pp. 5-32
- [25] F. Bellini, V. Bignozzi, G. Puccetti (2018) “**Conditional expectiles, time consistency and mixture convexity properties**”, *Insurance: Mathematics and Economics* Vol. 82 pp. 117-123
- [26] F. Bellini, L. Mercuri, E. Rroji (2018) “**Implicit Expectiles and Measures of Implied Volatility**”, *Quantitative Finance* vol. 18, n. 11, pp. 1851-1864
- [27] F. Bellini, I. Negri, M. Pyatkova (2019) “**Backtesting VaR and Expectiles with Realized Scores**”, *Statistical Methods and Applications* vol. 28, n. 1, pp. 119-142
- [28] F. Bellini, R. Laeven, E. Rosazza Gianin (2021) “**Dynamic Robust Orlicz premia and Haezendonck-Govaerts risk measures**”, *European Journal of Operation Research* vol. 291, n. 2, pp. 438-446
- [29] F. Bellini, L. Mercuri, E. Rroji (2020) “**On the Dependence Structure Between S&P500, Vix and Implicit Interexpectile Differences**”, *Quantitative Finance*, vol. 20, n. 11 pp.1839-1848
- [30] F. Bellini, F. Cesarone, C. Colombo, F. Tardella (2021) “**Risk parity with Expectiles**”, *European Journal of Operation Research*, vol. 291, n. 3, pp. 1149-1163
- [31] Bellini, F., Koch-Medina, P., Munari, C., Svindland, G. (2021) **Law-invariant functionals beyond bounded positions**, *SIAM Journal on Financial Mathematics* vol. 12, n. 1, pp. 318-341
- [32] Bellini, F., Koch-Medina, P., Munari, C., Svindland, G. (2021) **Law-invariant functionals that collapse to the mean**, to appear in *Insurance: Mathematics and Economics*  
<https://doi.org/10.1016/j.insmatheco.2021.03.002>
- [33] Bellini, F., Rroji, E., Sala, C. (2021) **Implicit quantiles and implicit expectiles**, to appear in *Annals of Operation Research*,  
<https://doi.org/10.1007/s10479-021-04054-8>

## Recent Invited Talks

- "Implicit Expectiles" Dipartimento di Economia Marco Biagi, Modena, 4/4/2017
- "Expectiles: properties and financial applications", SCOR, Zurich, 4/5/2017
- "Law invariant pricing of insurances" VUB Brussels, 17/10/2018
- "Risk Parity with Expectiles" University of Bergamo, 16/04/2019
- "Financial applications of expectiles" International Workshop on Stress Testing and Risk Management, Paris, 28/05/2019
- "Measuring implied volatility with implicit expectiles and related functionals" DVfVW e.V. Conference, Hannover 20/11/2019
- "On the properties of Lambda-quantiles" ISFA Lyon, 24/01/2020

## Recent conferences

- "Conditional expectiles, time consistency and mixture convexity properties" Poster presentation, AMAMEF Conference, Amsterdam 2017
- "Implicit Expectiles and Measures of Implied Volatility" IME Conference, Vienna 2017
- "Portfolio Optimization with Expectiles" ECSO Conference, Roma 2017
- "Conditional expectiles, time consistency and mixture convexity properties" QFW 2018, Roma 2018
- "Dynamic properties of Orlicz and HG risk measures" EURO 2018, Valencia 2018
- "Risk Parity with Expectiles" AMASES Conference, Napoli 2018
- "On the properties of Lambda-quantiles" ERCIM Conference, Pisa 2018
- "On the properties of Lambda-quantiles" AMASES Conference, Perugia 2019
- "Law invariant pricing and its limitations" IME Conference, Munich 2019
- "On the properties of Lambda-quantiles" AMASES Conference, Perugia 2019
- "On the properties of Lambda-quantiles" eMAF Conference Online, 2020

## Other activities

- (2021- ...) Member of the "Presidio of Qualità – Didattica" of the University of Milano-Bicocca
- (2018 - ...) Associate Editor of Insurance: Mathematics and Economics
- (2018 - ...) Coordinator of the of the "Laurea Magistrale" in Economics and Finance (ECOFIN) and of the "Laurea Triennale" in Banking and Finance (ECOBAN) at the University of Milano-Bicocca
- (2016) Organization of the international conference "Quantitative Finance Workshop" at the University of Milano-Bicocca
- (2015) Organization of the international conference "Dependence and Risk Measures" at the University of Milano-Bicocca
- (2014 - 2018) Vice coordinator of the PhD program in "Statistics and Mathematics for Finance" at the University of Milano-Bicocca.
- Referee for "Annals of Applied Probability", "Annals of Operation Research", "Dependence Modeling", "European Journal of Finance", "European Journal of Operation Research", "Finance and Stochastics", "Insurance: Mathematics and Economics", "International Journal of Theoretical and Applied Finance", "Journal of Banking and Finance", "Journal of Risk", "Journal of the Royal Statistical Society B", "Mathematical Finance", "Mathematical Methods in Operation Research", "North American Actuarial Journal", "North American Journal of Economic and Finance", "Quantitative Finance", "Risks", "Skandinavian Actuarial Journal",.....
- (1999) Italian Chess Champion.