PERSONAL DETAILS:

NAME AND SURNAME: Tiziano Bellini.
E-mail: tiziano.bellini@unipr.it

EDUCATION:

2009 - Doctorate in Statistics, Università di Milano Bicocca XXI program (2005-2008). Visiting Ph.D Student at the London School of Economics (2007). Thesis: *Intensity Credit Risk Models: A Robust Calibration*. Topic: Pricing Credit Derivatives. Discussion date: April 30 2009. Vote: **Summa Cum Laude**.

2003 - Dottore Commercialista e Revisore dei Conti (Tax Expert and Chartered Public Accountant). Exam passed on June 2003. Vote: **Summa Cum Laude**.

1997 - Degree in Economcis, Università degli studi di Parma, Faculty of Economics. Thesis: *Teoria dell'informazione, della contrattazione e dell'agenzia: recenti sviluppi metodologici*. Topic: Managerial Accounting and Governance. Discussion date: February 13 1997. Vote: **Summa Cum Laude**.

MAIN PUBLICATIONS

BOOK
Author: Bellini T. Year 2016. Stress Testing and Risk Integration in Banks: A Statistical Framework and Practical Software Guide in Matlab and R. Academic Press - Inprint Elsevier
http://store.elsevier.com/Tiziano-Bellini/ELS_1188283/

ARTICLES
Author: Bellini T. Year 2015. Title: The Forward Search Interactive Outlier Detection in Cointegrated VAR Analysis. Journal: Advances in Data Analysis and Classification, 10 (3), 351-373. Editor: Springer. DOI: 10.1007/s11634-015-0216-8.

Author: Bellini T. Year 2013. Title: Integrated Bank Risk Modeling: A Bottom-up Statistical Framework. Journal: European Journal of Operational Research, 230 (2), 385–398. Editor: Elsevier. DOI:10.1016/j.ejor.2013.04.031

Authors: Bellini T., Riani M. Year: 2012. Title: Robust Analysis of Default Intensity. Journal: Computational Statistics and Data Analysis, 56 (11), 3276-3285 (1st issue of the Annals of Computational and Financial Econometrics, Sixth Special Issue on Computational Econometrics). Editor: Elsevier. DOI: 10.1016/j.csda.2011.03.007.

Author: Bellini T. Year: 2012. Title: Forward Search Outlier Detection in Data Envelopment Analysis. Journal: European Journal of Operational Research, 216 (1), 200–207. Editor: Elsevier. DOI:10.1016/j.ejor.2011.07.023.

Author: Bellini T. Year: 2010. Title: Detecting Atypical Observations in Financial Data: The Forward Search for Elliptical Copulas. Journal: Advances in Data Analysis and Classification, 4 (4), 287–299. Editor: Springer. DOI 10.1007/s11634-010-0072-5.

AWARDS AND PRIZES

2005-2008 Award from the Università di Milano Bicocca, Doctorate in Statistics, XXI program.

2003 – Cassa di Risparmio di Parma Award for excellent Student in Accounting and Tax.

LANGUAGES:

Italian (mother tongue), English (fluent), French (Advanced).

COMPUTER SKILLS: Matlab, R, SQL, Latex.

CURRENT EMPLOYER: Ernst & Young, Advisory Financial Services, London.

CURRENT POSITION: Senior Manager

October 2015 – Present
Ernst & Young London

IFRS

- Probability of default model development and validation:Retail portfolio: Prime mortgages, Buy-to-let mortgages, personal loans, credit cards, current accounts. Wholesale portfolio: commercial portfolio.
- Loss given default model development and validation: Retail portfolio: Prime mortgages, Buy-to-let mortgages, current accounts.
- Exposure at default model development and validation: Retail portfolio: Prime mortgages, Buy-to-let mortgages, personal loans, credit cards, current accounts. Wholesale portfolio: commercial portfolio.
- Staging allocation.
- Expected Credit Losses and validation.

Stress Testing

- Balance sheet projection.
- RWA stress testing.
- Net-interest revenues.
- Profit and loss as well as capital projection.

July 2014 – September 2015
HSBC London – New York

Independent Model Review (IMR)

- Wholesale global stress testing model review (Global Stress Testing IMR):
- Wholesale stress testing PD and LGD.
- Retail credit stress testing model review (Global Stress Testing IMR)
- North America (US) Comprehensive Capital Analysis and Review (CCAR) stress testing model review (HNAN IMR).
- Wholesale IFRS 9 model review (Europe-Mena IMR).
- Retail IFRS 9 model review (Europe-Mena IMR).
- Prudential Regulatory Authority (PRA) 2015 stress testing.
- Wholesale and retail stress testing UK, France, rest of Europe and Mena.

2008 – June 2014
Prometeia S.p.A.

Credit Risk

- Economic capital software development and implementation in the following banks.
- Capital planning and portfolio modelling software development and applications in the following banks.
- Design and implementation of portfolio credit policies: risk-adjusted portfolio analysis, economic value added (EVA) computation and capital allocation in the following banks.
- Stress Testing, development and implementation in the following banks.
- RWA optimization process in the following banks.
- Pricing and re-pricing processes implementation: software development and implementation, pricing simulation, pricing process revision in the following banks.
- Pricing CDO, Development and applications in the following banks.

- Rating engine development.
- Rating evolution.

IFRS9, IAS39 Accounting Principles

- IFRS9 project management, software development and application in the following banks.
- IAS39 revision and provisioning analysis.
- Fair value software development and application:

Operational Risk

- Definition of the whole adequacy program for IT architecture for operational risk, definition of organizational structure supporting LDC (Loss Data collection) activities.
- Support in data gathering activities and in development of archive of operational risk losses.
- Definition of organizational structure, and operational support in SRA (Self Risk Assessment) analysis.
- Development of processes and risk map for operational risk and its customization on client's needs.
- Development of implementation projects regarding LDC (Loss Data Collection) software procedure.
- Development of systems to control and mitigate operational risk (KRI collection and analysis).

Financial Risk and Risk Integration

- Risk Integration software development, integrated stress testing and applications in the following environments.
- Full fair value development and implementation.

2000 – 2008
Banca Monte Parma S.p.A.

Financial Risk
- Responsible for "Asset & Liability Management" project, implementation and analysis.
- Responsible for the liquidity project, implementation and analysis.
- Responsible for the VAR (value at risk) implementation and analysis.
- Responsible for the static and dynamic strategic financial planning: EVA, RAPM analysis and capital allocation.
- ALCO (Asset and Liability Committee) member.
- Responsible for Hedge Accounting evaluations.
- Responsible for impairment assessment and projection.
- Project and delivery management within the above areas:

Credit Risk and Basel II

- Responsible for the development of new credit assessment procedures.
- Responsible for Basel II project: market and credit risk measurements.
- Responsible for overall risk evaluation including impairment assessment and projection.
- Project and delivery management within the above areas:

Balance Sheet and Taxation Department

- Responsible for the implementation of the Sap accounting system.
- Responsible for the project on impairment assessment and projection.
- Charged with the drawing up of the balance sheet and income tax return statement of Banca Monte Parma, Monte Parma Foundation, and Monte Parma Complementary Pension Fund.

Strategic Planning Department

- Responsible for the general review of the software system concerning the profitability of business areas and cost accounting revision.

- Appointed to the development of simulating models concerning banking interest rate time series in cooperation with the Statistics and Computer Science Division of the Department of Economics, Università degli Studi di Parma.

1998 – 2000
Ballarini Paolo & figli S.p.A.

- Responsible for the Cost Acconting and Budgeting project.
- Implementation of a managerial acconting system based on the "Activity Based Cost Method" and the development of the "Supply Chain" project.
- Charged with the drawing up of the balance sheet and income tax return statement of the firm.

Chartered Public Accountant and Tax Expert

- Firm evaluations.
- Tax calculation for manufacturing, real estate, service companies.
- Tax calculation for individuals.
- Managerial Accounting, Cost Accounting and Budgeting software implementation.
- Supply Chain Management.
- Merger and Acquisitions.
- Advisor in Bankruptcy procedures.

Full list of Published Articles

- Author: Bellini T.. Title: The Forward Search Interactive Outlier Detection in Cointegrated VAR Analysis. Year 2015. Journal: Advances in Data Analysis and Classification, 10 (3), 351-373. Editor: Springer. DOI: 10.1007/s11634-015-0216-8.
- Author: Bellini T.. Title: Integrated Bank Risk Modeling: A Bottom-up Statistical Framework. Year 2013. Journal: European Journal of Operational Research, 230 (2), 385–398. Editor: Elsevier. DOI:10.1016/j.ejor.2013.04.031
- Author: Bellini T. Title: Credit Stress Testing From a Portfolio Perspective. Year: 2013. Article of the Volume: Selected Issues in Statistical Methods and Applications in an Historical Perspective, Studies in Theoretical and Applied Statistics. Editor: Springer-Verlag Berlin Heidelberg.
- Authors: Bellini T., Bocchi, L.. Title: Portfolio Credit Risk Modelling. Year: 2013. Chapter of the Book: Retail Credit Risk Management. Editor: Palgrave Macmillan UK, Studies in Banking and Financial Institutions.
- Authors: Bellini T., Bocchi, L.. Title: Stress Testing, Capital Planning and Risk Integration. Year: 2013. Chapter of the Book: Retail Credit Risk Management. Editor: Palgrave Macmillan, Studies in Banking and Financial Institutions.
- Authors: Bellini T., Riani M.. Title: Robust Analysis of Default Intensity. Year: 2012. Journal: Computational Statistics and Data Analysis, 56 (11), 3276-3285 (1st issue of the Annals of Computational and Financial Econometrics, Sixth Special Issue on Computational Econometrics). Editor: Elsevier. DOI: 10.1016/j.csda.2011.03.007.
- Author: Bellini T.. Title: Forward Search Outlier Detection in Data Envelopment Analysis. Year: 2012. Journal: European Journal of Operational Research, 216 (1), 200–207. Editor: Elsevier. DOI:10.1016/j.ejor.2011.07.023.
- Author: Bellini T.. Title: Il rischio di credito: profili concettuali e gestionali. Year: 2012. Raccolta: Il risk management in banca, 43-71. Editor: Banking Financial Diploma ABI, Roma.
- Author: Bellini T.. Title: La misurazione del rischio di credito. Year: 2012. Raccolta: Il risk management in banca, 73-98. Editor: Banking Financial Diploma ABI, Roma.
- Author: Bellini T.. Title: Detecting Atypical Observations in Financial Data: The Forward Search for Elliptical Copulas. Year: 2010. Journal: Advances in Data Analysis and Classification, 4 (4), 287–299. Editore: Springer. DOI 10.1007/s11634-010-0072-5.
- Authors: Bellini T., Riani M.. Title: Un modello statistico per l'analisi della dipendenza temporal dei tassi bancari dai tassi Interbancari. Year: 2010. Chapter of the Book: Excel per la finanza e il management, 273-303. Alpha Test, Milano. ISBN/ISSN 9788848312639.
- Authors: Grossi L., Bellini T.. Title: Credit Risk Management through Robust Generalized Linear Models. Year: 2006. Article of the Volume: Data Analysis, Classification and the Forward Search, pp. 377-386. Editor: Springer-Verlag, Heidelberg. ISBN: 3-540-35977-X.

Submitted Articles
- Author: Bellini T.. Title: Reverse Stress Testing in Banks: A Bottom-up Framework. Year of submission 2016. Journal: European Journal of Operational Research. Editor: Elsevier.

Referee and Review Activities
- Journal of Banking and Finance (Elsevier).
- European Journal of Operational Research (Elsevier).
- Omega – The International Journal of Management Science (Elsevier).
- Journal of Applied Statistics (Taylor & Francis).
- SIS – Società Italiana Statistica.

Conference Presentations
- Bellini, T. (2013). Robust Credit Stress Testing Trough a Cointegrated Framework, Meeting SIS Brescia, June 19.
- Bellini, T., Grossi, L. (2012). A Statistical Framework to Measure Reputation Risk, Meeting SIS Roma, June 20.
- Bellini T. (2011). Outlier Detection in Time Series: Envelope Analysis, ERCIM ((European Research Consortium for Informatics and Mathematics), London, December 17.
- Bellini T. (2011). Integrated Banking Economic Capital, Riunione CLADAG (Classification and Data Analysis Group, Società Italiana di Statistica), Pavia, September 7.
- Bellini T. (2011). Robust Time Series Analysis Through the Forward Search, ICORS (International Conference on Robust Statistics), Valladolid, June 27.
- Bellini T. (2011). Robust Credit Stress Testing, Riunione SIS (Società Italiana di Statistica), Bologna, June 10.
- Bellini T. (2010). The Forward Search Estimation of Integrated Economic Capital, CFE (Computational and Financial Econometrics), London, December, 10.
- Bellini T. (2010). Robust Data Envelopment Analysis, Riunione SIS (Società Italiana di Statistica), Padova, June 17.
- Bellini T. (2009). Robust Analysis of Default Intensity, ERCIM (European Research Consortium for Informatics and Mathematics) Limassol (Cyprus), October 29.
- Bellini T. (2009). Robust Copula Calibration, ICORS (International Conference on Robust Statistics), Parma, June 18.
- Grossi L., Bellini T. (2005). Credit Risk Management through Robust Generalized Linear Models, CLADAG (Classification and Data Analysis Group), Parma, June 8.
- Grossi L., Bellini T., Gozzi G. (2003). Analyzing the Temporal Dependence of Bank Interest Rates to Market Interest Rates: the Italian Case, SIS Napoli, June 10.

Conference Organizations
- 2012: Tendenze evolutive nella misurazione e nella gestione integrata dei rischi nel sistema finanziario, Parma, February 3.
- 2010: Metodi multivariati robusti per l’analisi di dati economici, SIS School, Parma, September 20-24.
- 2009: ICORS (International Conference on Robust Statistics), Parma, June 14-19.
- 2005: CLADAG (Classification and Data Analysis Group), Parma, June 6-8.

Teaching
- 2015-2016: London School of Economics: Guest Lecturer, Master in Risk and Stochastics.
- 2013-2014: Università di Bologna (Rimini) Contract Professor: Econometrics of Risk (60 h.).
- 2011-2012: Università di Parma, Facoltà di Economia, Contract Professor: Statistica I (72 h.).
- 2012: Misurazione e Gestione del Rischio di Credito, Master in Credit Risk Management, Università Cattolica del Sacro Cuore, Milano, June.
- 2011: Stress Testing e Integrazione dei Rischi, Master in Credit Risk Management, Università Cattolica del Sacro Cuore, Milano, June.
- 2011: Credit Risk Modelling, Master in Quantitative Finance, Università di Bologna, Bologna (Italy), February - March.
- 2010-2011: Università di Parma, Facoltà di Economia, Contract Professor: Analisi dei Dati Statistici (30 h.).
- 2010: The Forward Search in Banking Economic Capital Estimation, Joint Research Project Italia-Spagna, Parma, October.
- 2010: The Forward Search in Financial Analysis, Scuola SIS, Parma (Italy), September.

- 2010: Stress Testing, Master in Credit Risk Management, Università Cattolica del Sacro Cuore, Milano, July.
- 2009-2010: Università di Parma, Facoltà di Economia, Contract Professor: Campionamento e Inferenza Statistica (30 h.).
- 2007: Multivariate Copula Estimation, London Graduate School in Mathematical Finance, London, December.