Marco Bianchetti

Curriculum Vitae et Studiorum - Resumè

Job experiences

- ***Apr. 2021 – present: Head of IMA Market Risk, Intesa Sanpaolo, Market and Financial Risk Management***: responsible of regulatory market risk models and RWAs under Basel 2.5 and FRTB and of global fair/prudent/IPV policies of Intesa Sanpaolo Group. Lead a team of 12 people.
- ***Nov. 2015 – Apr. 2021: Head of Fair Value Policy, Intesa Sanpaolo, Financial and Market Risk Management***: responsible of the global fair/prudent/IPV policies of Intesa Sanpaolo Group. Focus on valuation risk management, pricing models, portfolio optimization, bubble analysis, Quasi Monte Carlo techniques. Lead a team of 6 people.
- ***2012 – Oct. 2015: Head of Financial Modelling and Validation, Intesa Sanpaolo, Market Risk Management***: lead a risk quant team in charge of front office pricing models validation, and development of analytics for market and counterparty risk. Focus on interest rate modelling, XVAs, Quasi Monte Carlo, fair/prudent valuation.
- ***Jan. 2008 – Dec. 2011: Senior Quantitative Risk Manager, Intesa Sanpaolo, Market Risk Management, Derivatives Pricing***: pricing and risk management of portfolios of derivatives (interest rate, equity, inflation). Model validation and model risk assessment/monitoring, product innovation, fair value policy, fair value adjustments, Markit/Totem data analysis.
- ***May 2002 – Dec. 2007: Quantitative Analyst, Banca Caboto, Financial Engineering***: developed pricing models and trading applications for interest rate & inflation trading desks.
- ***Oct. 2000 – Apr. 2002: Quantitative Analyst, Banca Intesa, Risk Management - Financial Engineering***: worked on models and trading applications for derivatives (plain vanilla, rendistato, bond coupon stripping, equity).
- ***Jul. - Oct. 2000: Consultant, INFM – National Institute for Matter Physics***, Genova: scientific project management, technology transfer & outreach.
- ***Oct. 1995 - Jul. 2000: Teaching Assistant, Università degli Studi di Miano and Politecnico di Milano***: teaching general physics I and II courses (2 MSc + 2 BSc courses, 300+ students).
- ***Sept. 1995 – Sept. 1996: Consultant, SILAQ Italia S.r.l.***: quality and safety services.
- ***1996 – 2006: ADI–Italian Ph.D. Association***: founder, 1st president, board of directors.

Skills

- **Project management:** managed a number of internal projects on valuation risk, prudent valuation, CSA-discounting, pricing model risk, inflation (developed a proprietary model and trading system for inflation desk). Co-organizer of 2 Master courses in Quantitative Finance. Coordination of research projects for Ph.D. quality assessment (1998-2006, Italian Ph.D. Association).
- **Research and teaching**: author of some research papers in quantitative finance and risk management. Frequently invited speaker at international conferences and training courses. Tutor of M.Sc. students in physics and finance. Coordinator of AIFIRM working group on Market Risk (since 2016). Adjunct professor of Interest Rate Models, University of Bologna (since 2015), "Quantitative Risk Management", University of Torino (2019-2023). Member of conference/Ph.D./Master boards.
- **Computing** (1992-2007): "from scratch" development of large codes. Various knowledge of C/C++, VBA, Matlab, ELF. User of Murex, RiskWatch, Applix, MSVisualC++, MSOffice, SVN/CVS/SourceSafe, LaTeX, and other Unix/Windows applications.

Education and training

- **Ph.D.** degree in Physics, University of Milan, Jan. 2000, with 3 years fellowship.
- **M. Sc.** degree ("laurea") in Physics, 110/110 *cum laude,* Univ. of Milan, Jul. 1995.
- Extensive training in quantitative finance and risk management (see complete list attached).

Other

- **Personal characteristics**: empathic and effective professional, able to take initiative and responsibility, design, propose and lead projects, create consensus, deliver and report results.
- **Team working**: frequent interaction with traders, quants, IT, Financial/Product Control, Accounting, Organisation, senior management, internal/external Auditors and Regulators.
- **Languages**: Italian: native. English: good read, written and spoken, TOEFL score 610 (1995).
- **Military service**: Italian Army, logistics (Apr. 1994 – Apr. 1995).
- **No profit**: Italian Ph.D. Association (1996-2006), COOPI course international cooperation (2006)

Marco Bianchetti
Papers – Conferences et al.

1) Finance

Books, papers, conference proceedings, etc.

- Aiolfi, R., Moreni, N., Bianchetti, M. et al. Learning Bermudans. Computational Economics (2024). https://doi.org/10.1007/s10614-023-10517-w. Preprint available at SSRN and Arxiv.
- Silotto, L., Scaringi, M. & Bianchetti, M. XVA modelling: validation, performance and model risk management. Annals of Operations Research (2023). https://doi.org/10.1007/s10479-023-05323-4. Preprint available as Silotto, Lorenzo and Scaringi, Marco and Bianchetti, Marco, Everything You Always Wanted to Know About XVA Model Risk but Were Afraid to Ask (July 19, 2021) at SSRN and Arxiv.
- S. Scoleri; M. Bianchetti; S. Kucherenko, "*Application of Quasi Monte Carlo and Global Sensitivity Analysis to Option Pricing and Greeks: Finite Differences vs. AAD*", Wilmott Journal n. 116 (66-83). Available at SSRN, https://ssrn.com/abstract=2911698.
- V. Falco, M. Bianchetti, U. Cherubini, "*Moving from IBORs to Alternative Risk Free Rates*", Risk Management Magazine 16, 2021. Available at SSRN https://ssrn.com/abstract=3757940.
- M. Scaringi, M. Bianchetti, "*No Fear of Discounting: How to Manage the Transition from EONIA to €STR*" (September 2, 2020). Available at SSRN https://ssrn.com/abstract=3674249.
- Marco Bianchetti; Umberto Cherubini, "Fro*m IBORs to RFRs: Impacts on Banks' Processes and Procedures*", AIFIRM – Associazione Italiana Financial Industry Risk Managers, 2019, DOI http://dx.doi.org/10.47473/2016ppa00016
- M. Bianchetti, C. Ricci, M. Scaringi, "*Forecasting crypto crashes with bubble analysis*", Risk Magazine, 1, 2018. Available at SSRN https://ssrn.com/abstract=3092427.
- M. Bianchetti, D.E. Galli, C. Ricci, A. Salvatori, M. Scaringi, "*Brexit or Bremain? Evidence from Bubble Analysis*". Published on CEUR-WS: 29-Dec-2016, Proceedings of the 1st Workshop on MIning DAta for financial applicationS (MIDAS 2016), Riva del Garda, Italy, September 19-23, 2016. Edited by: Ilaria Bordino, Guido Caldarelli, Fabio Fumarola, Francesco Gullo, Tiziano Squartini. Also published in Risk Magazine, 22 June 2016. Available at SSRN https://ssrn.com/abstract=2798434.
- M. Bianchetti, U. Cherubini, "*Prudent Valuation Guidelines and Sound Practices*", published in Newletter AIFIRM anno 11, n. 1, Dec. 2015, http://www.aifirm.it. Available at SSRN 16 Jun. 2016, https://ssrn.com/abstract=2790629.
- A. Antonov, M. Bianchetti and I. Mihai, "*FVA for General Instruments*", Risk Magazine, Nov. 2015. Available at SSRN, 10 Jul. 2013, http://ssrn.com/abstract=2290987.
- M. Bianchetti, S. Kucherenko, S. Scoleri, "*Pricing and Risk Management With High-Dimensional Quasi Monte Carlo and Global Sensitivity Analysis*", Wilmott, 2015: 46–70, Jul. 2015. Available at SSRN, 9 Apr. 2015,http://ssrn.com/abstract=2592753.
- M. Bianchetti, M. Carlicchi, F. Cozzi, L. Recchia, A. Spuntarelli, "*ETD vs. OTCD: Counterparty Risk and Capital Requirements for Exchange Traded Derivatives*", 24 Sept. 2014. Available at SSRN http://ssrn.com/abstract=2500972
- M. Bianchetti and M. Morini, editors, "*Interest rate modelling after the financial crisis*", Risk Books, Jun. 2013 (http://riskbooks.com/interest-rate-modelling-after-the-financial-crisis), including the three chapters:
  - M. Bianchetti and M. Carlicchi, "*Evolution of the Markets after the Credit Crunch*", Available at SSRN, 19 Dec. 2012, http://ssrn.com/abstract=2190138
  - M. Bianchetti, "*Modern Pricing of Interest Rate Derivatives including Funding and Collateral*".
  - F. M. Ametrano and M. Bianchetti, "*Bootstrapping the Illiquidity: Multiple Yield Curves Construction for Market Coherent Discount and FRA Rates Estimation*", Available at SSRN, 2 Apr. 2013, http://ssrn.com/abstract=2219548.
- Ametrano, Ferdinando M. and Bianchetti, Marco, "*Everything You Always Wanted to Know About Multiple Interest Rate Curve Bootstrapping but Were Afraid to Ask*", Available at SSRN, 2 Apr. 2013, https://ssrn.com/abstract=2219548.
- M. Bianchetti, M. Carlicchi, "*Interest Rates After the Credit Crunch - Multiple Curve Vanilla Derivatives and SABR*", published in The Capco Journal of Financial Transformation - Applied Finance n. 32, September 2011 (http://www.capco.com/sites/all/files/journal-32.pdf). Available at SSRN, 11 Mar. 2011, http://ssrn.com/abstract=1783070.
- M. Bianchetti, "*The Zeeman Effect in Finance*", Bloomberg Risk, 5 Aug. 2011, pp. 7-8 (Bloomberg NI RISKBRIEF <GO>). Available at SSRN, 31 Oct. 2011, http://ssrn.com/abstract=1951578.
- M. Bianchetti, "*Two Curves, One Price*", Risk, August 2010. Available at SSRN, 14 Nov. 2008, http://ssrn.com/abstract=1334356.

- F. M. Ametrano, M. Bianchetti, "*Bootstrapping the Illiquidity: Multiple Yield Curves Construction for Market Coherent Forward Rates Estimation*", published in "*Modeling Interest Rates: Latest Advances for Derivatives Pricing*", edited by F. Mercurio, Risk Books, 2009. SSRN abstract http://ssrn.com/abstract=1371311.
- E. Scalas, M. Bianchetti, F. Mainardi, H.E. Roman, A. Vivoli, "*Syntethic Markets*", conference poster, published in *Proceedings of the 8th Annual Workshop on Economics with Heterogeneous Interacting Agents*, Kiel, Germany, May 29-31, 2003, http://people.unipmn.it/scalas/wehia2003sm/wehia2003sm.html.
- M. Bianchetti, *"Towards High Performance Monte Carlo Pricing of Portfolios of Equity Derivatives"*, in proceedings of CAPI2001, CILEA, 2001, http://www.bianchetti.org/Finance/CAPI2001/CAPI2001-Presentation.htm.

Conferences, talks, etc. (as speaker)

- Joint talk with Giuseppe Crupi, " *Learning Market Data Anomalies* ", Lake Como School of Advanced Studies, Statistical Physics of Deep Learning II, Villa del Grumello, Como, 11 June 2024.
- Talk, " *Learning Market Data Anomalies* ", Dept. of Mathematics, University of Padua, 6 May 2024.
- Talk, "*Sharpening Risk Allocation*", International Risk Management Conference 2024, Bocconi University, Milan, Jun. 2024.
- Joint talk with Marco Scaringi, "*Fair Risk Allocation*", RiskMinds International, London, 14 Nov. 2023.
- Joint talk with Marco Scaringi, " *Learning Market Data Anomalies* ", QuantMinds International, London, 14 Nov. 2023.
- Talk, " *Learning Market Data Anomalies* ", International Risk Management Conference 2023, Florence, 7 Jul. 2023.
- Talk, "*Learning Market Data Anomalies*", 67th EWGCFM Meeting, Rome, 5 May. 2023.
- Joint talk with Marco Scaringi, "*Learning Market Data Anomalies*", QuantMinds International, Barcellona, 9 Nov. 2022.
- Joint talk with Jorge Miguel Vegas, "*ESG Market Risk Valuation and Management*", Risk Minds, Barcellona, Nov. 2022.
- Joint talk with Marco Scaringi, "*Learning Market Data Anomalies*", International Fintech Research Conference, Politecnico di Milano, 27 Oct. 2022.
- Joint talk with Jorge Miguel Vegas, "*ESG Market Risk Valuation and Management*", The 3rd ESG & Climate Risk in Quantitative Finance Hybrid Conference, WBS Quantitative Finance Conference, London, May. 2022.
- Joint talk with G. Amici, F. Brina, M. Mezzetti, A. Peroni, P. Rossi, "*Learning Exotic Derivatives Without Calibration*", QuantMinds in Focus Conference, May 2021.
- Joint invited talk with G. Amici, F. Brina, M. Mezzetti, A. Peroni, P. Rossi, "*Learning Exotic Derivatives Without Calibration*", WBS Quant Conference Spring Edition, Mar. 2021.
- Joint talks with Marco Scaringi, Pictet Quant seminars (2 events), February 2021.
- Joint talk with Marco Scaringi, "*No Fear of Discounting*", WBS Quantitative Finance Conference, Oct. 2020.
- Joint talk with Marco Scaringi, " *Learning the Optimal Portfolio - Risk-Oriented Portfolio Management with Global Optimization Algorithms* ", QuantMinds International, 2-6 Nov. 2020.
- Talk "*Valuation Risk Management"*, webinar AIFIRM and Refinitiv, 14 Jul. 2020.
- Joint invited talk with Marco Scaringi, "*New Interest Rate Benchmarks Valuations and Risk Management*", 15th Quantitative Finance Conference, WBS, Rome, 17 October 2019.
- Talk "*Valuation Risk Management*", V-FI Europe, London, 26 Jun. 2019.
- Talk "*New Interest Rate Benchmarks - Valuations and Risk Management*", Cass Business School, London, 19 Jun. 2019.
- Talk " *New Interest Rate Benchmarks Valuations and Risk Managemen*", Prometeia, Bologna, 22 May 2019.
- Joint invited talk with Marco Scaringi, "*IBORs Reform: user guide for quants and risk managers*", QuantMinds International, 15 May 2019, Vienna.
- Talk "*Past, Present and (Possible) Futures of Valuations and Risk Management under IBORs evolution*", Benchmark Rates Reform: Valuations, Discounting and Forward Risk, London, 15 Mar. 2019.
- Talk "*Beyond fair valuations*", Risk and Supervision 2018, Unione Bancaria e Basilea 3, Rome, 14 June 2018.
- Talk "*Bitcoin, Brexit and other bubble stories*", International Summer School Risk Measurement and Control, Rome, 5 June 2018.
- Joint talk with Marco Scaringi, "*Learning the Optimal Risk - Advanced Risk-Based Portfolio Management with Global Optimization and Machine Learning Algorithms*", QuantMinds International, 16 May 2018, Lisbon.
- Joint talk with Marco Scaringi, "*Learning the Optimal Risk - Advanced Risk-Based Portfolio Management with Global Optimization and Machine Learning Algorithms*", Università degli Studi Milano Bicocca, Milan, 21 March 2018.

- Joint talk with Marco Scaringi, "*Learning the Optimal Risk - Advanced Risk-Based Portfolio Management with Global Optimization and Machine Learning Algorithms*", Machine Learning & AI in Quantitative Finance Conference, WBS, London, 15 March 2018.
- Talk "*Are Cryptocurrencies Real Financial Bubbles? Evidence from Market and Sentiment Analyses*", Prometeia, Bologna, 8 March 2018.
- Talk "*Brexit, Bitcoin & other stories - Evidence from different bubble models*", RiskMinds International, 5 Dec. 2017, Amsterdam.
- Talk "*Brexit, Bitcoin & other stories - Evidence from different bubble models*", WBS 13th Fixed Income Conference, 20 Oct. 2017, Firenze.
- Joint talk with Anna Cremon, "*Prudent Valuation and MPU: Efficient Capital Allocation under EBA RTS*", V-FI Europe, London, 21 Jun. 2017.
- Talk "*Is Brexit still a bubble*", Global Derivatives Trading and Risk Management, Barcelona, May 2017.
- Talks "*Brexit or Bremain ? Evidence from bubble analysis*" and "*Gruppo di lavoro Fundamental Review of the Trading Book (FRTB) - Avvio lavori*", XII Convention AIFIRM, Milano, 16 Nov. 2016.
- Talk "*Prudent Valuation - Bridging the gap between pricing and risk management*", Prometeia, Bologna, 13 Oct. 2016.
- Talk "*Prudent Valuation - Bridging the gap between pricing and risk management"*, Workshop New Themes in Finance, Insurance and Energy Markets, Novara, 22 Sep. 2016
- Talk "*Brexit or Bremain? Evidence from Bubble Analysis*", 1st Workshop on MIning DAta for financial applicationS (MIDAS 2016), Riva del Garda, Italy, 19 Sep. 2016.
- Talk "*The Age of Negative Rates - Market facts and modelling consequences",* PRMIA and Numerix conference, Milan, 26 May 2016.
- Talks "*Prudent Valuation: here we go*", and "*Better Pricing & Risk Management with High Dimensional Quasi Monte Carlo*" (with S. Scoleri), Global Derivatives Trading and Risk Management, Budapest, May 2016.
- Joint invited talk with S. Scoleri and S. Kucherenko, "*Better Pricing & Risk Management with High Dimensional Quasi Monte Carlo – Multi-asset options and AAD*", Imperial College, Dept. of Mathematics, London, 9 Mar. 2016.
- Talk "*Prudent Valuation: conclusione lavori*", AIFIRM, Milan, 2 Dec. 2015.
- Talk "*Prudent Valuation: A New Bridge Between Pricing & Risk Management*", Cass Business School, London, 4 Nov. 2015.
- Joint talk with S. Scoleri, "*Better Pricing & Risk Management with High Dimensional Quasi Monte Carlo – Multi-asset options and AAD*", WBS Fixed Income Conference, Paris, 9 Oct. 2015.
- Talks "*Prudent Valuation: A New Bridge Between Pricing & Risk Management*", and "*Better Pricing & Risk Management with High Dimensional Quasi Monte Carlo*" (with S. Scoleri), Global Derivatives Trading and Risk Management, Amsterdam, May 2015.
- Joint talk with T. Dehapiot, "*Prudent Valuation: Bridging the Gap Between Pricing & Risk Management*", Risk Minds, Amsterdam, 10 Dec. 2014.
- Joint talk with I. Faerman, "*Prudent Valuation: Bridging the Gap Between Pricing & Risk Management*", Numerix Webinar, 12 Nov. 2014.
- Joint talk with S. Scoleri, "*Better Pricing and Risk Management with High Dimensional Quasi Monte Carlo*", WBS 10th Fixed Income Conference, Barcelona, 26 Sep. 2014.
- Joint talk with U. Cherubini, "*Funding Valuation and Prudent Valuation Adjustments (PVA & FVA)*", ABI conference, Roma, 16 Jun. 2014
- Talk "*Modern Derivative Pricing Including Funding and Collateral*", Prometeia, Bologna, 22 May 2014.
- Talk "*Advanced Techniques in Computing Counterparty Risk Measures: Quasi Monte Carlo Simulation*", Global Derivatives Trading and Risk Management, Amsterdam, 15 May 2014.
- Talk "*Advanced Techniques in Computing Counterparty Risk Measures: Quasi Monte Carlo Simulation*", Risk Minds, Amsterdam, 3 Dec. 2013.
- Talk "*Modern Derivative Pricing Including Funding and Collateral*", Risk Quant Congress, London, 12 Jun. 2013.
- Talk "*Modern Derivative Pricing Including Funding and Collateral*", Global Derivatives Trading and Risk Management, Amsterdam, 17 Apr. 2013.
- Talk "*Quants in finance – What a scientist can do in a bank*", Polytechnic of Milan, 10 Apr. 2013.
- Talk "*Modern Derivative Pricing Including Funding and Collateral*", 2nd WBS Interest Rate Conference, London 13 Mar. 2013.
- Talk "*Modern no-Arbitrage Pricing*", Scuola Normale Superiore di Pisa, 29 Jan. 2013.
- Talk "*Bootstrapping the Illiquidity*", Qfin Colloquia, Polytechnic of Milan, 22 Nov. 2012.
- Talk "*Quants in Finance*", Mateday, Math. Engineering, Polytechnic of Milan, 24 Oct. 2012.
- Talk "*Modern Derivatives' Pricing*", Risk Quant Congress, New York, 11 Jul. 2012.
- Talk "*The Zeeman Effect in Finance*", 18th Global Derivatives Trading and Risk Management, Barcellona, 19 Apr. 2011.
- Talk "*Modern Interest Rates*", WBS Interest Rate Conference, London, 28 Mar. 2012.

- Talk "*Modern Interest Rates*", Cass Business School, London, 28 Mar. 2012.
- Talk "*Modern Derivatives' Pricing*", Risk Annual Summit, London, 22 Mar. 2012.
- Talk "*Interest Rate After the Credit Crunch*", Risk Quant Congress, London, 8 Nov. 2011.
- Talk "*Interest Rates After the Credit Crunch*", Scuola Sup. S. Anna, Pisa, 17 Oct. 2011.
- Talk "*Switching to CSA discounting and beyond*", WBS 7th Fixed Income Conference, Berlin, 6 Oct. 2011.
- Talk "*Risk Management, Fair Value and Model Validation after the Credit Crunch*", Banca IMI conference "*The Debt Crisis: Different Rules for a Different World*", New York, 17-20 May 2011.
- Talk "*Interest Rate After the Credit Crunch*", IX RiskLab Meeting on Financial Risks, Madrid, 12 May 2011.
- Talk "*Interest Rate Derivatives After the Credit Crunch*", Bank of International Settlements, Basel, 6 May 2011.
- Talk "*Switching to CSA Discounting*", 17th Global Derivatives Trading and Risk Management, Paris, 11-15 Apr. 2011.
- Talk "*Multiple Curves One Price*", 16th Global Derivatives Trading and Risk Management, Paris, 17-21 May 2010.
- Talk "*Two Curves One Price*", Marcus Evans workshop "*Risk and Modelling Fixed Income Interest Rates*", London, 15-16 Apr. 2010.
- Talk "*Fair value, la crisi: impatti sui modelli di pricing*", joint with P. Virgili and L. A. Cefis, workshop Bank of Italy, Rome, 19 Jan. 2010.
- Talk "*Two Curves One Price*", Quant Congress Europe, London, 3-5 Nov. 2009.
- Talk "*Two Curves One Price*", X Workshop of Quantitative Finance, Milan, Jan. 2009.
- Internal talk "*Pricing & hedging inflation-linked derivatives",* Caboto - Intesa, Jan. 2004.
- Talk *"Towards High Performance Monte Carlo Pricing of Portfolios of Equity Derivatives"* at CAPI2001, CILEA, Catholic Univ. Milan, Oct. 2001.
- Organizer of 1 day workshop "*Introduction to Econophysics*", University of Milan, Physics Department, Nov. 1999 (http://www.bianchetti.org/Finance/Econophysics1999.htm).

Referee
- International Journal of Theoretical and Applied Finance (2013)
- Journal of Risk (2013)
- Journal of Economic Dynamics and Control (2012)
- Mathematical Finance (2013)
- Quantitative Finance (2017-present)
- Risk Magazine (2010-present).
- Wilmott Journal (2012)
- World Scientific Publishing Co. (2011).

Memberships
- Since 2024: member of the QuantMinds International Congress Advisory Board.
- Since 2023: member of the Quant Congress Advisory Board.
- Since 2017: member of the PhD programme "Mathematical Models and Methods in Engineering" Advisory Board, Politecnico di Milano.
- Since 2013, coordinator, jointly with Prof. U. Cherubini, of AIFIRM Market Risk Committee.
- Since 2011, member of the Board of Directors of "*Master in Finanza Quantitativa*", MIP School of Management, Politecnico di Milano.
- 2004-2005: member of the Board of Directors of "*Master in metodologie e modelli per la finanza quantitativa*", University of Milan, Dept. of Physics.

Teaching activity

- **Regular**
  - Since 2015: Adjunct Professor of "Advanced Interest Rate Models and Markets" (30h), School of Economy, Management and Statistics, Bologna University, SSD: SECS S/06.
  - 2018-2023: Adjunct Professor of "Quantitative Risk Management" (8h), Dept. of Economic-Social and Mathematical-Statistical Sciences, University of Torino, SSD: SECS S/06.
  - Since 2015: Lecturer "Elective Course Market and Counterparty Risk Management" (8h out of 16h course), Mafinrisk, Bocconi University.
  - Since 2011: Lecturer "*Fixed income financial instruments*" (15-20h course) at Master in Finanza Quantitativa, MIP School of Management, Politecnico di Milano.
  - 2005-2020: Lecturer on fixed income financial instruments and markets at Corso di Alta Formazione in Finanza Matematica, Dept. of Mathematics, Bologna University:
  - 2005: Lecturer "*Modelli per gli strumenti finanziari*" (25h), Master in metodologie e modelli per la finanza quantitativa, University of Milan, Dept. of Physics.

- **Irregular**
  - Joint lecture with S. Scoleri and S. Kucherenko, "*Applications of QMC Methods in Finance - Part Three: Applications to Counterparty Risk*", Certificate in Quantitative Finance Institute, London, 14 March 2018.
  - Lecturer "*Modelling & Validation for Capital, Initial Margin & Prudent Value*", Global Derivatives Trading and Risk Management, Amsterdam, May 2015 (1-day joint workshop with M. Morini).
  - Lecturer "*Modern Interest Rates*", M.Sc. Course in Quantitative Finance, Dept. of Economy & Finance, University of Bologna, 24 April 2015, (2 days workshop).
  - Lecturer "*Prudent Valuation*", 4th WBS CVA Conference, London, 25 Mar. 2015 (1-day joint workshop with U. Cherubini).
  - Lecturer "*Prudent Valuation*", London Stock Exchange Group Academy, Milano, 28 Nov. 2014 (1-day joint workshop with U. Cherubini, A. Pignataro, S. Vasconi).
  - Lecturer "*Prudent Valuation*", London Stock Exchange Group Academy, Milano, 29 May 2014 (1-day joint workshop with U. Cherubini, E. Maffi, A. Pignataro, S. Vasconi).
  - Lecturer "*Quantitative Risk Management*", University of Milan-Bicocca, 23 Nov. 2013 (1h).
  - Lecturer "*Modern Derivative Pricing with Collateral, Funding and Credit Risk*", WBS Quants Hub, London, 17 Nov. 2013 (1-day workshop).
  - Lecturer "*Modern Derivative Pricing with Collateral, Funding and Credit Risk*", Risk Quant Congress, London, 11 Jun. 2013 (1-day workshop).
  - Lecturer "*Understanding and Managing Model Risk*", Workshop, Risk Minds, Amsterdam, 7 Dec. 2012 (half day workshop).
  - Lecturer "*Interest Rates Derivatives*", WBS, Frankfurt, 19 Nov. 2012 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*", WBS, London, 15 May. 2012 (2h).
  - Lecturer "*Modern Interest Rates*", Technical Master Class, 18th Global Derivatives Trading an Risk Management, Barcellona, 20 Apr. 2011 (half day workshop).
  - Lecturer "*Interest Rates After the Credit Crunch*", WBS, Paris, 27 Feb. 2012 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*", WBS, Madrid, 28 Nov. 2011 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*", Concentric, Milan, 27 Oct. 2011 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*", WBS 7th Fixed Income Conference, Berlin, 5 Oct. 2011 (1 day).
  - Lecturer "*Interest Rates After the Credit Crunch*", WBS, London, Mar. 2011 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*"; WBS, Frankfurt, Feb. 2011 (day 1 of 2).
  - Lecturer "*Interest Rates After the Credit Crunch*", Piedmont University, Dept. of Economic Sciences and Quantitative Methods, 14 Dec. 2010 (3h).
  - Lecturer "*Interest Rates After the Credit Crunch*"; WBS, Milan, Oct. 2010 (day 1 of 2).
  - Lecturer "*Two Curves One Price*", WBS, London, Apr. 2010 (1.5h of 2 days).
  - Lecturer "*The SABR Model*", Piedmont University, Dept. of Economic Sciences and Quantitative Methods, Dec. 2009 (3h).

- **Students (as supervisor)**
  - Oussama Zekiouk, M.Sc. Quantitative Finance, University of Bologna, "*Application of Stochastic Kriging and Quasi-Monte Carlo Techniques"*, expected Dec. 2024.
  - Simona Lentini, M.Sc. Quantitative Finance, University of Bologna, "*XVA Modelling in the G2++ Model Framework: Extension to FVA, MVA and Quasi-Monte Carlo Technique"*, Mar. 2024.
  - Luca Albieri, M.Sc. Quantitative Finance, University of Bologna, "*Monte Carlo, Quasi-Monte Carlo and Randomized Quasi-Monte Carlo Methods for Option Pricing and Risk-Management with Global Sensitivity Analysis*", March 2024.
  - Giovanni Greco, M.Sc. Quantitative Finance, University of Bologna, "*A Non-Replication Approach to Price CMS Spread Options*", Dec. 2023.
  - Riccardo Lamia, M.Sc. Quantitative Finance, University of Bologna, "*SABR Model: recent developments, calibration and pricing results*", March 2023.
  - Michele Silano, M.Sc. Quantitative Finance, University of Bologna, "*Extended SABR Model and New Financial Benchmarks: an efficient and low bias Monte Carlo approach*", March 2022.
  - Dario Diamantini, M.Sc. Quantitative Finance, University of Bologna, "*On the calibration and applicability of the Backward-looking SABR model in the post-IBOR world*", March 2022.
  - Guillermo Juan Martinez Cantalapiedra, M.Sc. Quantitative Finance, University of Bologna, "*Option Based Financial Bubble Detection*", March 2022.
  - Giuseppe D'Antuono, M.Sc. Quantitative Finance, University of Bologna, "*Accurate method for option sensitivities: Chebyshev Interpolation*", 17 Dec. 2021.
  - Matteo Mezzetti, M. Sc. Quantitative Finance, University of Bologna, "*Deep Learning on European Swaptions: an innovative market-based approach*", 30 October 2022.
  - Federico Brina, M. Sc. Quantitative Finance, University of Bologna, "*Innovative market-approach for deep learning on cap & Foor options*", Dec. 2020.

- Gianmarco Antognetti, M. Sc. Quantitative Finance, University of Bologna, "*Pricing Convexity Adjustment with SABR Model: Application to CMS Derivatives*", Dec. 2020.
- Behnam Lari, M. Sc. Quantitative Finance, University of Bologna, "*Deep Learning on Exotic Derivatives Portfolio*", Mar. 2020.
- Silvia Franchin, M. Sc. Quantitative Finance, University of Bologna, "Financial Bubbles Growth & Burst: from Theoretical Models to Real Case Computational Analysis", 25 Mar. 2019.
- Davide Chiarabini, M. Sc. Quantitative Finance, University of Bologna, "*Geometrical derivation of the free boundary SABR model and stability control for its numerical implementation*", 25 Mar. 2019.
- Giulio Gattiani, M. Sc. Quantitative Finance, University of Bologna, "*Theoretical derivation and swaption calibration of the free boundary SABR model*", 25 Mar. 2019.
- Federica Palma, M. Sc. Quantitative Finance, University of Bologna, "*Modelling negative interest rates*", Oct. 2017.
- Alessio Tognon, M. Sc. Quantitative Finance, University of Bologna, "*Quasi Monte Carlo Simulation of Heston Dynamics*", Oct. 2017.

Students (as co-supervisor)

- Adriana Pachioli, M.Sc. Mathematical Engineering, Politecnico di Milano, "*Portfolio Optimization*", Jun. 2024.
- Daniel Sima, M.Sc. Mathematical Engineering, Politecnico di Milano, "*Machine Learning Methods for finance*", expected Dec. 2023.
- Giuseppe Crupi, M. Sc. Physics, University of Milan, "*Development of a Machine Learning framework for Anomaly Detection in Financial Time Series*", July 2023.
- Francesco Codazzi, M. Sc. Physics, University of Milan, "*Testing Machine Learning Algorithms for Market Data Anomalies*", June 2023.
- Stefano Polo, M. Sc. Physics, University of Milan, "*Reinforcement Learning for Optimal Stochastic Control in Finance*", 9 Feb. 2021.
- Pietro Gallo, M. Sc. Mathematical Engineering, Politecnico di Milano, "*Portfolio Optimization*", Apr. 2019.
- Francesco Reggiani, M. Sc. Physics, University of Milan, "*Comparison between financial bubble models: theory and application*", Jul. 2017.
- Anna Cremon, M.Sc. Finance, Bocconi University, "*Prudent Valuation and Market Price Uncertainty: methodologies for an efficient capital allocation under EBA Regulatory Technical Standards*", Apr. 2017.
- Nicola Sedini, M. Sc. Physics, University of Milan, "*A Comparison Between Monte Carlo and Quasi-Monte Carlo Methods in Finance: Nested Simulations for Counterparty Credit Risk*", Feb. 2017.
- Marco Scaringi, M. Sc. Physics, University of Milan, "*Financial bubbles: genesis and detection within the JLS model framework*", Feb. 2017
- Angelo Salvatori, M. Sc. Physics, University of Milan, "*Stochastic Models for Self-Organized Criticality in Financial Markets*", Apr. 2016.
- Mattia Carlicchi, M. Sc. Finance, Bocconi University, "*I tassi di interesse dopo il credit crunch: l'evoluzione del mercato e dei modelli*", Dec. 2010
- Piero Del Boca, M. Sc. Physics, University of Milan, "*Modelli stocastici per la valutazione di derivati sull'inflazione*", Jan. 2009.

Trainings (as trainee)

- "*Practical Approaches to Managing Model Risk*", Incisive Training, London, 2010 (2 days).
- "Market Models", M. Joshi, Caboto, 2006/2007 (8 weeks).
- "*Hybrids & Inflation Derivatives Workshop*", WBS, London, Mar. 2005 (2 days).
- "*Interest Rate Derivatives*", Y. Aït-Sahalia, FAME, Geneve, 2004 (5 days).
- "*Workshop of Quantitative Finance*", Siena, Jan. 2004 (2 days).
- "*Advanced Derivative Pricing*", G.Barone-Adesi, Banca Intesa, 2002 (5 days).

Interviews

- Short interview by Risk Magazine, in "*Risk 25: no more heroes in quantitative finance*?", by Laurie Carver, 1 Aug. 2012.
- Interview by Bloomberg, in "*London Banks Seen Rigging Rates Losing Credibility with Markets*", by Mark Gilbert, Gavin Finch and Anchalee Worrachate, Nov. 2011 (Bloomberg, NSN LV2NIP0UQVI9 <GO>).
- Interview "*From physics to finance*", appeared in "*Career Book 2005*", Somedia, n° 1, anno 8, p. 160, Nov. 2004, and in "*Repertorio delle professioni*", Università degli Studi di Milano, ed. 2004, p. 343, (italian).

Softwares

- *"Inflation-linked derivatives proprietary model and trading system"*, 2002-2007. Applix/ELF/C^{++}/platform (7000+ code lines). Pricing, hedging & bookeeping of 600+ inflation linked swaps, Futures, bonds, calls/puts, caps/floors with multiple underlying CPI.

2) Physics

Papers, proceedings, etc.

- "*Ab-initio Study of the Electromagnetic Response and Polarizability Properties of Carbon Chains*", M.Bianchetti, P. F. Buonsante, F. Ginelli, H. E. Roman, R. A. Broglia, F. Alasia, Physics Reports 357 (2002), 459-513 (Research Gate, direct link).
- "*Ab-initio calculations of axially symmetric isolated carbon structures: from linear chains to nanotubes*", M. Bianchetti, Ph.D. thesis, Jan. 2000 (direct link).
- *"Field Emission Properties of Carbon Nanowires from Ab-Initio Calculations",* M. Bianchetti, P.F.Buonsante, F.Ginelli, A.Lorenzoni, H.E.Roman, R.A.Broglia; in Proceedings of the XIII International Winter School of Electronic Properties of Novel Materials - Science and Technology of Molecular Nanostructures (IWEPNM99), Ed. H. Kuzmany, J. Fink, M. Mehring, S.Roth, AIP Conference Proceedings 486, 448 (1999).
- "*^{123}Te Electron Capture Half-Life in Nuclear Field Theory",* M.Bianchetti, M.R.Quaglia, G.Colò, R.A.Broglia, P.F.Bortignon, P.M.Pizzochero, in proceedings of VII National Conference on Problems in Theoretical Nuclear Physics, Cortona, 19-21 oct. 1998.
- "*Competition Between Particle-Particle and Particle-Hole Correlations in Forbidden Electron Capture: the Case of ^{123}Te*", M.Bianchetti, M.R.Quaglia, G.Colò, R.A.Broglia, P.F.Bortignon, P.M.Pizzochero, *Physical Review C*, 56, R1675, Oct. 1997, ArXiv preprint http://arxiv.org/abs/nucl-th/9607032.
- "*Nuclear structure and solar neutrino absorption*", M. Bianchetti, M.Sc. thesis, Jul. 1995.

Conferences, courses, etc

- Poster *"Field Emission Properties of Carbon Nanowires from Ab-Initio Calculations",* M. Bianchetti, P.F.Buonsante, F.Ginelli, A.Lorenzoni, H.E.Roman, R.A.Broglia presented at IWEPNM99, *XIII International Winterschool on Electronic Properties of Novel Materials - Science and Technology of Molecular Nanostructures"*, Kirchberg, Austria 1999.
- *"Management of Technology"*, University of Milan, 1998-1999 (annual course).
- *"VI Summer School of Vector and Parallel Computing",* CINECA, Bologna, 1997 (2 weeks).

Teaching activity

- A.a. 1999-2000, 2nd semester: general physics (mechanic, thermodynamic, electromagnetism), B.Sc. Telecommunication Engineering, Polytechnic of Milan (exercise lecturer, ~70 students).
- A.a. 1999-2000, 1st semester: general physics I (mechanic, thermodynamic), M.Sc in Computer Science, University of Milan (joint lecturer with Prof. Marco Bersanelli, ~150 students).
- A.a. 1998-1999, 2nd semester: general physics (mechanic, thermodynamic, electromagnetism), B.Sc. Telecommunication Engineering, Polytechnic of Milan (exercises lecturer, ~50 students).
- A.a. 1998-1999, 1st semester: general physics I (mechanic, thermodynamic), M.Sc. in Computer Science, University of Milan - Bicocca (lecturer, ~50 students).

Softwares

- *"Kohn Sham equations in Local Density Approximation in cylindrical basis"*, Ph.D. research project, 1996-2000, C/Linux platform (5000+ code lines): electronic, electromagnetic and field emission properties of carbon nanotubes and linear chains (in collaboration with P.F.Buonsante and F. Ginelli).
- *"Proton-Neutron Quasi Particle Random Phase Approximation"*, M.Sc. research project, 1993-1996, Fortran/OpenVMS platform (4000+ code lines): weak transitions in nuclei, solar neutrino absorption, beta decay, electron capture (in collaboration with B. Lauritzen).

3) Non profit

Papers, proceedings, etc.

- Co-editor of "*Cervelli in Gabbia – Disavventure e peripezie dei ricercatori italiani*", Avverbi, Nov. 2005, forewords by Piero Angela and Samuel Ting (1976 Nobel prize in physics) (*www.cervelliingabbia.it*).
- Co-editor of "*Cervelli in Fuga – Storie di menti italiane fuggite all'estero*", Avverbi, 2001, forewords by Piero Angela and Burton Richter (1976 Nobel prize in physics) (*www.cervelliinfuga.it*).

- Chapters "*Cervelli in Gabbia and Cervelli in Fuga*", M. Bianchetti, A. Palombini, and "*L'Impresa*", M. Bianchetti, G. Orlandi, in "*Cervelli in Gabbia*", Avverbi, 2005.
- Chapter "*La qualità fra formazione e ricerca: il ruolo chiave del dottorato*", M. Bianchetti, M. C. Usai, in "*Cervelli in Fuga*", Avverbi, 2001.
- Talk *"La via italiana al dottorato di ricerca"*, M. Bianchetti, in proceedings of "*Il Dottorato di Ricerca - Esperienze a confronto in Italia ed Europa*" ed. E. Fornasini, E. Stefani, CRUI, 1999 (*http://www.crui.it/crui/Atti_PD.rtf*).

Ph.D. assessment research reports
- Report "*Survey on working conditions and professional expectations of Ph.D. students in Italy"*, ADI (2006-2007).
- Report for the "*Project for the recognition, collection and analysis of Ph.D. existing data; survey on the professional outcome of Ph.D."*, ADI and CNVSU (2004-2005).
- Report "*Quality assessment of Ph.D. courses at University of Pisa: survey on Ph.D. students opinions*"", M. Bianchetti et al, 2003 (*www.dottorato.it/qualita*).
- Report "*Quality assessment of Ph.D. courses at University of Milan-Bicocca: survey on Ph.D. students opinions*"", M. Bianchetti et al, 2003 (*www.dottorato.it/qualita*).

Presentations, workshops (co-organiser, chairman or speaker)
- Talk at "*Il mestiere della ricerca: un impegno per la cultura e l'innovazione*", University of Milan, May 2002.
- Talk at "*Il nuovo dottorato di ricerca – obiettivi e valutazione*", University of Padua, Nov. 2000.
- Talk at "*Le aziende incontrano l'innovazione*", ASSOTEC, Milan, May 1999.
- Talk at "*Il Dottorato di Ricerca - Esperienze a confronto in Italia ed Europa*", CRUI and University of Padova, Apr. 1999.
- Talk "*Il dottorato di ricerca a Milano fra riforma e autonomia"*, University of Milan, May 2001.
- Talk "*Dottorato e lavoro. Il valore aggiunto della ricerca*", Forte dei Marmi, Oct. 2000.
- Talk "*Riforma della docenza, reclutamento universitario e valutazione*", Bologna, Apr. 2000.
- "*Dottorato di ricerca ed Imprese: una interazione possibile ?*", Torino, Mar. 1998.
- Talks at ADI – Associazione Dottorandi e Dottori di Ricerca Italiani (*www.dottorato.it*) annual national meetings 1997-2007.