Curriculum Vitae. Davide Erminio Pirino, PhD.

Date of Birth May, 3, 1981.

Citizenship Italian.

Current Position

- ⋆ From June 2019 to today, Associate Professor, Department of Economics and Finance, **University of Rome “Tor Vergata”**.

Previous Positions

- ⋆ From June 2016 to May 2019, Senior Assistant Professor, Department of Economics and Finance, **University of Rome “Tor Vergata”**.
- ⋆ From October 2015 to May 2016: Junior Assistant Professor, Faculty of Sciences, **Scuola Normale Superiore**, Pisa.
- ⋆ From October 2013 to September 2015: Post-Doctoral Researcher, Faculty of Sciences, **Scuola Normale Superiore**, Pisa.
- ⋆ From March 2009 to March 2013: Post-Doctoral Researcher, Laboratory of Economics and Management (L.E.M.), **Sant’Anna School of Advanced Studies**, Pisa.

Education

- ⋆ From January 2006 to March 2009: PhD in Physics, Galileo Galilei School of Graduate Studies, **University of Pisa**.

  Final Dissertation: Theoretical and empirical essays on the dynamics of financial and energy markets.
  Advisor: Prof. Roberto Renò.
- ⋆ From October 2002 to March 2005: M.S., Physics, **University of Pisa**.

  Magna cum Laude in Condensed Matter Physics.
- ⋆ From October 1999 to October 2002: B.S., Physics, **University of Pisa**.

  Magna cum Laude in Condensed Matter Physics.

Abilitazione Scientifica Nazionale

- ⋆ Settore concorsuale 13/D4 (metodi matematici dell’economia e delle scienze attuariali e finanziarie). Abilitazione alle funzioni di professore di prima fascia valida dal 13/11/2020 al 13/11/2029.
- ⋆ Settore concorsuale 13/A5 (econometria). Abilitazione alle funzioni di professore di prima fascia valida dal 13/11/2020 al 13/11/2029.

Publications

- ⋆ Managing Liquidity with Portfolio Staleness.
  Giuseppe Buccheri, Davide Pirino and Luca Trapin.
  Decisions in Economics and Finance, 2020.
- ⋆ Statistical inferences for price staleness.
  Aleksey Kolokolov, Giulia Livieri and Davide Pirino.
  Journal of Econometrics, 2020, Volume 218(1), Pages 32-81.

- ⋆ Zeros.
  Federico M. Bandi, Aleksey Kolokolov, Davide Pirino and Roberto Renó.
  Management Science, 2020, Volume 66(8), Pages 1-14.

- ⋆ A closed-formula characterization of the Epps effect.
  Giuseppe Buccheri, Giulia Livieri, Davide Pirino and Alessandro Pollastri.
  Quantitative Finance, 2020, Volume 20(2), Pages 243-254.

- ⋆ A SHARP model of bid-ask spread forecasts.
  Fabrizio Lillo and Davide Pirino .
  International Journal of Forecasting, 2019, Volume 35(4), Pages 1211-1225.

- ⋆ Measuring the propagation of financial distress with Granger-causality tail risk networks.
  Fulvio Corsi, Fabrizio Lillo, Davide Pirino and Luca Trapin.
  Journal of Financial Stability, 2018, Volume 38, Pages 18-36.

- ⋆ Assessing systemic risk due to fire sales spillover through maximum entropy network reconstruction.
  Domenico Di Gangi, Fabrizio Lillo and Davide Pirino.
  Journal of Economic Dynamics and Control, 2018, Volume 94, Pages 117-141.

- ⋆ Excess idle time.
  Federico M. Bandi, Davide Pirino, Roberto Renó.
  Econometrica, 2017, Volume 85(6), Pages 1793-1846.

- ⋆ The impact of systemic and illiquidity risk on financing with risky collateral.
  Fabrizio Lillo and Davide Pirino .
  Journal of Economic Dynamics and Control, 2015, Volume 50(1), Pages 180-202.

- ⋆ Decidability in complex social choices.
  Gennaro Amendola, Luigi Marengo, Davide Pirino, Simona Settepanella and Akimichi Takemura.
  Evolutionary and Institutional Economics Review, 2015, Volume 12(1), Pages 141-168.

- ⋆ Zipf law and the firm size distribution: a critical discussion of popular estimators.
  Giulio Bottazzi, Davide Pirino and Federico Tamagni.
  Journal of Evolutionary Economics, Volume 25(3), 2015, pages 585-610.

- ⋆ Detecting correlations among functional-sequence motifs.
  Davide Pirino, Jacopo Rigosa, Alice Ledda and Luca Ferretti.
  Physical Review E, Volume 85(6), 2012, Pages 066124-11.

- ⋆ Threshold bipower variation and the impact of jumps on volatility forecasting.
  Fulvio Corsi, Davide Pirino and Roberto Renó.
  Journal of Econometrics, Volume 159(2), 2010, Pages 276-288.

- ⋆ Electricity prices: a non-parametric approach.
  Davide Pirino and Roberto Renó.
  International Journal of Theoretical and Applied Finance, Volume 13(2), 2010, Pages 285-299.

- ⋆ The extraction of natural resources: the role of thermodynamic efficiency.
  Antonio Roma and Davide Pirino.
  Ecological Economics, Volume 68(10), 2009, Pages 2594-2606.

- ⋆ Jump detection and long range dependence.
  Davide Pirino.
  Physica A: Statistical Mechanics and its Applications, Volume 388(7), 2009, Pages 1150-1156.

- ⋆ The influence of the astrocyte field on neuronal dynamics and synchronization.
  Paolo Allegrini, Leone Fronzoni and Davide Pirino.
  Journal of Biological Physics, Volume 35(4), 2009, Pages 413-423.

Working Papers

- ⋆ Realized moments: identification and pricing.
  Federico M. Bandi, Aleksey Kolokolov, Davide Pirino and Roberto Renó.
- ⋆ Systematic staleness.
  Federico Bandi, Davide Pirino and Roberto Renó.
  SSRN, 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3208204

Research Grants

As Principal Investigator:

- ⋆ June 2015. *A New Measure of Liquidity.*

  Granted by **Italian Ministry of Education, Universities and Research** under the program SIR (Scientific Independence of Young Researchers). Total funding ≈ 300000€.

- ⋆ December 2014. *Commonality in Liquidity and Systemic Risk.*.

  Granted by **Scuola Normale Superiore**, Junior Researchers Projects 2014. Total funding ≈ 10000€.

In collaboration:

- ⋆ April 2019. *HiDEA (Advanced Econometric methods for High-Frequency Data).*

  Granted by **Italian Ministry of Education, Universities and Research** under the program PRIN 2017. Coordinator of the local unit of Tor Vergata. Total funding ≈ 400000€.

Experiences Abroad, Conference Talks and Invited Seminars

- ⋆ **Universitá degli Studi di Cagliari**.

  Ninth Italian Congress of Econometrics and Empirical Economics, Cagliari, January 21-23, 2021.
  - Talk on: "Systematic Staleness".

- ⋆ **King's College London**.

  14th International Conference on Computational and Financial Econometrics (CFE 2020), London, December 19-21, 2020.
  - Talk on: "Systematic staleness".

- ⋆ **Universitá degli Studi di Napoli Parthenope**.

  XXI Workshop on Quantitative Finance, Napoli, January 29-31, 2020.
  - Talk on: "Realized moments: identification and pricing".

- ⋆ **Carey Business School, Johns Hopkins University, Baltimore**.

  Visiting researcher form April 1$^{\text{st}}$ to May 31, 2019.

- ⋆ **Università della Svizzera Italiana and the Swiss Finance Institute**.

  11$^{\text{th}}$ Annual Meeting of the Society for Financial Econometrics (SoFiE) , Lugano, June 12-14, 2018.
  - Talk on: "Zeros".

- ⋆ **Universitá degli Studi di Cagliari**.

  41$^{\text{st}}$ Annual Meeting of the Association for Mathematics Applied to Social and Economic Sciences, September, 14-16, 2017.
  - Talk on: "Systematic Staleness".

- ⋆ **NYU Stern, New York, USA**.

10th Annual SOFIE Conference, June, 21-23, 2017.

- Talk on: “Systematic Staleness”.

⋆ **Universitá degli Studi di Milano-Bicocca**.

XVIII Workshop on Quantitative Finance, January, 25-27, 2017.

- Talk on: “Systematic Staleness”.

⋆ **Higher Technical School of Engineering, University of Seville, Spain**.

9th International Conference of the ERCIM WG on Computational and Methodological Statistics, 9-11 December 2016.

- Talk on: “Systematic Staleness”.

⋆ **Vienna University of Economics and Business**.

Vienna Congress on Mathematical Finance, September, 12-14, 2016.

- Talk on: “EXcess Idle Time”.

⋆ **Palais des congrés de Montréal, Canada**.

11th World Congress of the Econometric Society, August, 17-21, 2015.

- Talk on: “EXcess Idle Time”.

⋆ **University of Parma**.

XVI Workshop on Quantitative Finance, January, 29-30, 2015.

- Talk on: “Measuring flight-to-quality with Granger-causality tail risk networks”.

⋆ **Group Risk Methodologies** & **Architecture, UniCredit Tower, Milan**.

Invited Seminar, January 2015.

- Talk on: “Measuring flight-to-quality with Granger-causality tail risk networks”.

⋆ **Group Risk Methodologies** & **Architecture, UniCredit Tower, Milan**.

Invited Seminar, January 2014.

- Talk on: “The Impact of systemic and illiquidity risk on financing with risky collateral”.

⋆ **Rimini Campus of the University of Bologna, Rimini**.

XIV Workshop on Quantitative Finance, 23-24 January 2013.

- Talk on: “EXcess Idle Time”.

⋆ **University of Siena**.

Invited Seminar, January 2013.

- Talk on: “Measuring Industry Relatedness and Corporate Coherence”.

⋆ **University of Pantheon-Assas, Paris II**.

WEHIA 2012 : 17th Annual Workshop on Economic Heterogeneous Interacting Agents, 21-23 June 2012.

- Talk on: “Power Laws and the Firm Size Distribution”.

⋆ **UNU-MERIT & School of Economics and Business, Maastricht University**.

DIME Final conference, 6-8 April 2011.

- Talk on: “Measuring Industry Relatedness and Corporate Coherence”.

⋆ **London Business School**.

Visiting Research Fellow from February 2008 to June 2008.

- Research Topic: microeconomic models with thermodynamic constraints on production functions.

⋆ **Trinity College Dublin**.

4^{th} INFINITI Conference on International Finance, 12-13 June 2006.

- Talk on: "Electricity prices: a non-parametric approach".

PhD Teaching activities

⋆ **PhD in Economics and Finance. Universitá degli studi di Roma Tor Vergata.**

Measure theory and stochastic processes, 12 hours, AY 2017-2018.

Measure theory and stochastic processes, 18 hours, AY 2018-2019.

Measure theory and stochastic processes, 18 hours, AY 2019-2020.

Measure theory and stochastic processes, 18 hours, AY 2020-2021.

⋆ **PhD in Financial Mathematics. Scuola Normale Superiore, Pisa**.

Financial econometrics in continuous time, 10 hours, AY 2018-2019.

Mathematical finance, 20 hours, AY 2015-2016.

Computational finance, 10 hours, AY 2015-2016.

⋆ **PhD in Economics. Sant'Anna School of Advanced Studies of Pisa.**

Introduction to stochastic processes, 15 hours, AY 2015-2016.

Tutorials on stochastic processes, 10 hours, AY 2013-2014.

Calculus and tutorials on differential equations, 30 hours, AY 2012-2013.

Calculus and tutorials on differential equations, 30 hours, AY 2011-2012.

Tutorials on dynamic optimization, 10 hours, AY 2011-2012.

Tutorials on calculus and differential equations, 20 hours, AY 2011-2012.

Tutorials on calculus and differential equations, 20 hours, AY 2010-2011.

Tutorials on dynamic optimization, 10 hours, AY 2010-2011.

Tutorials on calculus and differential equations, 20 hours, AY 2009-2010.

Other teaching activities

⋆ **Scuola Normale Superiore, Pisa**

From October 2015 to May 2016, "Calculus for Biologists", course for college students, 30 hours.

⋆ **Sant'Anna School of Advanced Studies of Pisa**.

October 2013, tutorials on calculus, course for college student, 10 hours.

June 2012, tutorials on calculus, course for college students, 10 hours.

December 2011, tutorials on calculus and differential equations, course for college students, 10 hours.

May 2011, course on "Management of patent data", course for college students, 10 hours.

March 2011, tutorial on linear algebra, course for college students, 10 hours.

December 2010, tutorials on calculus and differential equations, course for college students, 10 hours.

March 2010, tutorial on linear algebra, course for college students, 10 hours.

Referee Activity Journal of Financial Econometrics, Journal of Business Economics and Statistics, Journal of Applied Econometrics, Journal of Banking & Finance, PLoSone, Finance Research Letters, Computational Statistics and Data Analysis, Computational Management Science, Quantitative Finance, Journal of Evolutionary Economics. Journal of Financial Stability. Journal of Economic Dynamic & Control.

Bibliometrics (last update: January 29, 2021)

- ⋆ Scopus. H-index: 7, total citations: 345.
- ⋆ Google Scholar. H-index: 11, total citations: 750.