

# Gianluca Cassese

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## Personal

Birth: December 11, 1963.

Nationality: Italian.

Marital status: married, 4 children.

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## Education

B.S. Discipline Economiche e Sociali, Univeristà Bocconi, Milan, 1989.

M.Sc. Economics, London School of Economics and Political Science, 1992.

Ph.D. Economics, Università degli Studi di Ancona, 1993.

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## Visiting

Visiting Professor, Institute of Finance University of Lugano, 1996 – present;

Visiting Scholar, Department of Economics Stanford University, 1996.

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## Employment

Università di Milano Bicocca, 2008–present.

Università del Salento 2005–2008.

Università Bocconi 1990–2005.

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## Research Interests

Mathematical Finance.

Microeconomics and Theory of Decisions.

Probability and Stochastic Processes.

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## Publications

### *International Journals*

[Complete and Competitive Financial Markets in a Complex World](#)

*Finance and Stochastics*

Vol. 25, (2021), 659–688;

<https://doi.org/10.1007/s00780-021-00463-6>;

[A Special Issue on the Mathematics of Subjective Probability,](#)

(joint with P. Rigo e B. Vantaggi),

*Decisions in Economics and Finance,*

Vol. 43, (2020), 1–2;

<https://doi.org/10.1007/s10203-020-00286-8>;

[Semilattices, Canonical Embeddings and Representing Measures,](#)

*Decisions in Economics and Finance,*

Vol. 43, (2020), 55–74;

<https://doi.org/10.1007/s10203-019-00264-9>;

[Nonparametric Estimates of Option Prices and Related Quantities,](#)

*International Journal of Theoretical and Applied Finance,*

Vol. 22, No. 7 (2019),

<https://doi.org/10.1142/S0219024919500407>;

[Control Measures on Boolean Algebras,](#)

*Journal of Mathematical Analysis and Applications,*

Vol. 478, No. 2 (2019), 764–775;

[Conglomerability and Representations,](#)

*Journal of Convex Analysis,*

Vol. 25, No. 3 (2018), 789–815.

[Asset Pricing in an Imperfect World,](#)*Economic Theory,*

Vol. 64, No. 3 (2017), 539-570.

[The Theorem of Halmos and Savage under Finite Additivity,](#)*Journal of Mathematical Analysis and Applications,*

Vol. 437, No. 2 (2016), 870-881.

[A Version of Komlós Theorem for Additive Set Functions,](#)*Sankhyā A,*

Vol. 78, No. 1 (2016), 105-123.

[Convergence in Measure under Finite Additivity,](#)*Sankhyā A,*

Vol. 75, No. 2 (2013), 171-193.

[Supermartingale Decomposition with a General Index Set,](#)*Stochastic Processes and Their Applications,*

Vol. 120, No. 7 (2010), 1060-1073.

[Quasi-Martingales wit a Linearly Ordered Index Set,](#)*Statistics and Probability Letters,*

Vol. 80, No. 5-6 (2010), 421-426.

[Sure Wins, Separating Probabilities and the Representation of Linear Functionals,](#)*Journal of Mathematical Analysis and Applications,*

Vol. 354, No. 2 (2009), 558-563.

[Finitely Additive Supermartingales,](#)*Journal of Theoretical Probability,*

Vol. 21, No. 3 (2008), 586-603.

[Asset Pricing With no Exogenous Probability Measure,](#)*Mathematical Finance,*

Vol. 18, No. 1 (2008), 23-54.

[Yan Theorem in  \$L^\infty\$  with Applications to Asset Pricing,](#)*Acta Mathematicae Applicatae Sinica (English Series),*

Vol. 23, No. 4 (2007), 551-562.

[Decomposition of Supermartingales Indexed by a Linearly Ordered Set,](#)*Statistics and Probability Letters,*

Vol. 77, No. 8 (2007), 795-802.

[Modelling the Italian MIB30 Implied Volatility Surface. Does Market Efficiency Matter?,](#)

(joint with M. Guidolin)

*International Review of Financial Analysis,*

Vol. 15, No. 5 (2006), 145-178..

[A Note on Asset Bubbles in Continuous Time,](#)*International Journal of Theoretical and Applied Finance,*

Vol. 8, No. 4 (2005), 523-536.

[Pricing and Informational Efficiency of the MIB30 Index Options Market. An Analysis with High Frequency Data,](#)

(joint with M. Guidolin)

*Economic Notes*,  
Vol. 33, No. 2 (2004), 275–321.

### *National Journals*

Arbitrage Theory with Bounded Prices,  
*International Review of Economics and Business*,  
Vol. 46 (1999), 233–244.

Incompleteness of Markets and Vagueness of Beliefs,  
*International Review of Economics and Business*,  
Vol. 44 (1997), 837–855.

Asset Evaluation under Continuous-time: Some Remarks,  
*International Review of Economics and Business*,  
Vol. 42 (1995), 469–483.

Il Mercato Italiano delle Opzioni sull'Indice di Borsa,  
*Bancaria*,  
No. 1 2003, 87–95.

### *Books*

*Teoria dei Mercati Finanziari. Un'introduzione*, Roma, Carocci 2017.

### *Proceedings*

The Representation of Conglomerative Functionals, in Ferraro M. B., Giordani P., Vantaggi B., Gagolewski M., Gil M. A., Grzegorzewski P. and Hryniewicz O. (eds.), *Soft Methods for Data Science*, Berlin, Springer 2017, 103–112.

Mercati finanziari, politica monetaria e distribuzione del reddito. Un'interpretazione teorica, in G. Nardozi (ed), *Politica monetaria, profitti e finanza: contributi per l'analisi di alcuni recenti sviluppi*, Roma, LUISS Univeristy Press 2007, 87–122.

Il Mercato degli Strumenti Derivati in Italia, in Fondazione Rosselli *Settimo Rapporto sul Sistema Finanziario Italiano*, Roma, Edibank 2002, 163-180.

### Unpublished Works

[A Minimax Lemma and the Domination Property](#)  
submitted, 2022, ArXiv 2103.16454;

[Kelley's Theorem and Some Related Results](#),  
submitted, 2020, ArXiv ;

[\$\kappa\$ -ideals in Ordered Monoids](#),  
submitted, 2021, ArXiv 1907.10400.

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## Some Recent International Workshops

*XLIII Meeting AMASES, Perugia, 9 September – 11 September 2019;*  
*Society for the Advancement of Economic Theory, 2019 World Conference, Ischia, 30 June – 6 July 2019;*  
*Bachelier Finance Society, 2018 World Congress, Dublino, 16 – 20 Luglio 2018;*  
*The Mathematics of Subjective Probability, Milan 3 - 5 September 2018;*  
*Workshop on Quantitative Finance, Rome 2018;*  
*First Italian Meeting on Probability and Mathematical Statistics, Turin, 19 - 22 June 2017;*  
*Model Uncertainty and Robust Finance, Milan, 10 - 11 November 2016;*  
*Soft Methods in Probability and Statistics, Rome, 12 - 14 September 2016;*

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## Recent Seminars

*Asset Pricing in an Imperfect World:*  
University of Bielefeld (2015), University of Lugano (2015).  
*Asset Pricing with no Exogenous Probability:*  
University of L'Aquila, Dept. Mathematics (2008).

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## Referee

*Finance and Stochastics;*  
*The Financial Review.*  
*Computational Statistics and Data Analysis.*  
*Acta Applicanda Mathematica.*  
*Annals of Applied Probability.*  
*Journal of Applied Mathematics and Computing.*  
*Zentralblatt MATH;*  
*Journal of Mathematical Analysis and Applications*  
*Mathematical Reviews;*  
*Axioms.*

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## Teaching

*Mathematical Finance*, Università Milano Bicocca, 2013–present  
*Risk Management*, Università Milano Bicocca, 2008–present  
*Industrial Organization*, Università Milano Bicocca, 2008–2012  
*Financial Modeling*, University of Lugano, 2004–2012  
*Introduction to Financial Engineering*, University of Lugano, 2004–2014  
*Monetary Economics*, University of Lugano, 2012–present  
*Monetary Economics*, Università del Salento, 2006–2008  
*Macroeconomics*, Università del Salento, 2005–2008  
*International Economics*, Università del Salento, 2006–2008  
*Theory of Games and Voting*, Università del Salento, 2006–2008  
*Financial Markets*, University of Lugano, 1998–2006  
*Futures and Options*, Università Bocconi, 2000–2003

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## Lecture Notes

*Risk Management. Appunti di Lezione*, pp. 1-112, Università di Milano Bicocca.  
*Giochi e Strategie per la Politica e le Relazioni Internazionali*, pp. 1-69, Università del Salento, 2006.  
*An Introduction to Financial Engineering*, pp. 1-68, University of Lugano, 2006.  
*Uncertainty, Choice and Equilibrium. A Bird's Eye View*, pp. 1-63, Università del Salento, 2005.  
*Financial Modeling*, pp. 1-86, University of Lugano, 2004.  
*Options and Futures. An Introduction to Binomial Models*, pp. 1-63, Università Bocconi, 2000.