CV Tiziano De Angelis (1 March 2024)

Personal Details

Family name, first name: De Angelis, Tiziano;
Nationality: Italian;
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Education

17 Feb 2012: PhD in *Mathematics for Economic-Financial Applications*, "Sapienza" University of Rome
6 Apr 2009: MSc in *Analysis of Risk-Management for Insurance Companies*, "Sapienza" University of Rome (cum Laude)
28 May 2007: MSc in Physics from "Sapienza" University of Rome (cum Laude)
1 Mar 2005: BSc in Physics from "Sapienza" University of Rome (cum Laude)

Employment

Since March 2024: Professor in Mathematics for Economics, Finance and Insurance
School of Management and Economics, Dept. ESOMAS, University of Turin
Since Apr 2021: Collegio Carlo Alberto Affiliate
Nov 2020 - Feb 2024: Associate Professor in Probability and Statistics,
School of Management and Economics, Dept. ESOMAS, University of Turin
Since Nov 2020: Visiting Academic (unpaid), School of Mathematics, University of Leeds
Sep 2015 - Oct 2020: Lecturer in Financial/Actuarial Mathematics,
School of Mathematics, University of Leeds
Feb 2013 - Aug 2015: EPSRC Post Doctoral Research Associate,
School of Mathematics, University of Manchester
Feb 2012 - Jan 2013: Visiting postdoctoral researcher,
School of Mathematics, University of Manchester

Professional Qualifications

May 2021: Italian qualification as full professor in "Mathematical Analysis, Probability and Mathematical Statistics" (Abilitazione Scientifica Nazionale per il settore 01/A3)
Nov 2020: Italian qualification as full professor in "Mathematical Methods for Economics, Finance and Actuarial Sciences" (Abilitazione Scientifica Nazionale settore 13/D4)

Committees

Since Sep 2022: Deputy Director MSc programme in Quantitative Finance and Insurance (Univ. of Turin)
Since Sep 2021: Board member PhD programme "Modelling and Engineering Risk and Complexity" at Scuola Superiore Meridionale (Naples)
Since Sep 2020: External Examiner for the MSc programme in "Mathematics and Finance" at Imperial College London (my duties include annual review of assessment methods and exam papers)
Sep 2019 - Sep 2023: External Examiner for the MSc programme in "Quantitative Finance and Mathematics" at Heriot-Watt University of Edinburgh (my duties include annual review of assessment methods and exam papers)
Jan 2019 - Jan 2022: Committee member of the 'Applied Probability Section' of the Royal Statistical Society (during my term I organised two scientific meetings for the section and contributed to establish a prize for best PhD thesis in Stats and Applied Probab.)

Memberships

Since Jan 2023 I am member of the Society for Industrial and Applied Mathematics (SIAM) and of IMS-Bernoulli Society

Research Interests

Mathematical finance, mathematical economics and insurance; stochastic control, optimal stopping, stochastic games, free-boundary problems.

Metrics

Scopus: h-index = 11, citations = 355
Google Scholar: h-index = 15, citations = 803

External Funding

PI = Principal Investigator; Co-PI = PI with others; Co-I = Co-investigator;

July 2023: (Co-I "Resp. Unità Locale") PRIN-PNRR2022 (Progetti di Rilevante Interesse Nazionale), funded by Italian Ministry of University (EUR224,000); Project: '*Probabilistic Methods for Energy Transition*'

June 2023: (PI) **PRIN2022** (Progetti di Rilevante Interesse Nazionale), funded by Italian Ministry of University (EUR198,000); Project: '*Stochastic control and games and the role of information*'

Sep 2019: (PI) SMRI International Visitor Program, University of Sydney, Australia (AUD7,000)

Feb 2019: (Co-PI w. P. Tankov and O.D.A. Zerbib) Project: '*Greening companies' practices through optimal environmental investing*', funded by Europlace Institute of Finance (EUR10,000)

Jan 2018: (PI) **EPSRC First Grant EP/R021201/1**, funded by Engineering and Physical Sciences Research Council (GBP125,000); Project: '*A probabilistic toolkit to study regularity of free boundaries in stochastic optimal control*'

Oct 2017: (Co-PI w. J. Palczewski) Funds for a research week on '*Stochastic control and games under ambiguity*', granted by Isaac Newton Institute (GBP5,000)

Jan 2017: (Co-PI w. J. Palczewski) Funds for a research week on '*Stopping games with ambiguity-averse players*', granted by Heilbronn Institute for Mathematical Research (GBP7,000)

Nov 2016: (PI) 'Visiting Professor Fund', LUISS Guido Carli, University of Rome, Italy (EUR2,500)

2015/16: Co-I in the research projects:

Stochastic continuous time models for pension planning, Progetto di Ateneo C26A14HXBR, Sapienza Univ. of Rome (EUR3,500)

Tax evasion, corruption and inequality: quantitative models, empirical evidence and corrective policies, Progetto di Ateneo C26H159TJS, Sapienza Univ. of Rome (EUR20,000)

May 2013: (PI) Funds for 1-month research visit at Hausdorff Research Institute for Mathematics, University of Bonn (EUR2,400)

Feb 2012: (PI) *Borsa di perfezionamento all'estero*, 12-month research fellowship, granted by Dept. of Mathematics, "Sapienza" University of Rome (EUR15,480)

Other Funding

Jan 2018: (Co-PI w. J. Palczewski) Funds for conference on *Stochastic Control, Ambiguity and Games*, granted by School of Mathematics, University of Leeds (GBP6,675)

Mar 2017: (Co-PI w. J. Palczewski) Funds for conference *Stochastic Control, Ambiguity and Games*, granted by School of Mathematics, University of Leeds (GBP4,500)

Jun 2016: (Co-PI w. A. Veretennikov) Funds for conference *Stochastic Analysis of Dynamical Systems, Stochastic Control and Games*, granted by School of Mathematics, University of Leeds (GBP6,000)

Organization of Scientific Meetings

June 2023: (with A.M.G. Cox, M. Ruggiero, E. Issoglio) '*Turin-Bath PhD Workshop in Applied Probability and Statistics*' Collegio Carlo Alberto, Turin

Jul 2021: (with J. Palczewski) Collegio Carlo Alberto workshop '*Stochastic games with partial and asymmetric information*'

Dec 2020: (with A.M.G. Cox, K. Glau, N. Freeman) RSS workshop '*Data analysis and stochastic control: where do statistics and applied probability come together?*'

Nov 2020: (with R. Dumitrescu, Y. Kitapbayev, M. Zhitlukhin) Online seminar series on '*Optimal stopping and related topics* (https://sites.google.com/view/optimalstopping/home)

Sep 2020: Conference: '*Mathematics and economics of climate risk*', Collége de France, Paris (with J.-F. Chassagneux, P. Tankov and O.D. Zerbib) (postponed due to COVID-19)

July 2020: Member of the organising committee of the *162nd European Study Group with Industry*, University of Leeds

Jan 2020: 1-week winter school on *Theory and Practice of Optimal Stopping and Free Boundary Problems*, School of Mathematics, University of Leeds

Nov 2019: 2nd Leeds-Liverpool workshop on Applied Probability (1-day), School of Mathematics, University of Leeds

Jul 2019: (with L. Campi & G. Ferrari) Organiser of 3 sessions at the *2nd Italian Meeting on Probability and Mathematical Statistics*

Apr 2019: (with J. Palczewski) 2nd Leeds conference + research week on '*Stochastic Control and Games under Ambiguity*', School of Mathematics, University of Leeds

Jul 2018: (with G. Ferrari & S. Federico) Organiser of 2 sessions on *Optimal stopping, singular and impulse control and their applications* at the 14th Viennese Conference on Optimal Control and Dynamic Games

Sep 2017: (with J. Palczewski) 1st Leeds conference '*Stochastic Control, Ambiguity and Games*' + Research Week on '*Stopping Games for Ambiguity-Averse Players*', School of Mathematics, University of Leeds

Apr 2017: (with M. López-Garcia) Probability in the North-East (1 day) conference '*Interdisciplinary aspects of stochastic processes: health & disease and finance*', School of Mathematics, University of Leeds

Oct 2016: (with A. Veretennikov) Conference '*Stochastic Analysis of Dynamical Systems, Stochastic Control and Games*', School of Mathematics, University or Leeds

Feb 2013: (with M.B. Chiarolla, G. Ferrari, G. Stabile) workshop on '*Free-boundary Problems, Optimal Stopping and the Commodity Market*', Sapienza University or Rome

Referee Activity

I am referee for the journals: *Annals of Probability*, *Annals of Applied Probability*, *Probability Theory and Related Fields*, *SIAM Journal on Control and Optimization*, *SIAM Journal on Financial Mathematics*, *Mathematical Finance*, *Finance and Stochastics*, *Mathematics of Operations Research*, *Operations Research*, *Electronic Journal of Probability*, *Bernoulli*, *Stochastic Processes and Their Applications*, *Journal of Applied Probability*, *Applied Mathematics & Optimization*, *International Journal of Theoretical and Applied Finance*, *Mathematics and Financial Economics*, *Stochastics*, *Statistics & Probability Letters*, *Mathematical Methods of Operations Research*.

I am also a referee for EPSRC grants, for the Italian PRIN (Research Projects of National Interest) and for the Italian VQR (evaluation of research quality in Italian Universities)

Plenary Talks

June 2018: A Symposium on Optimal Stopping, Rice University, Houston, TX (US)

May 2018: Byrne Workshop on Stochastic Analysis in Finance and Insurance, University of Michigan, Ann Arbor (US)

Invited Talks at Conferences

Feb 2024: *Workshop* – Quantitative Methods for Green Finance; Politecnico di Milano

Jun 2023: *Conference* – 11th General AMaMeF Conference (Bielefeld, Germany) (invited session: Green Finance, Energy Transition), invited by C. Alasseur (EDF)

Jun 2023: *Workshop* – Stochastic Games with Asymmetric Information; Institute of Mathematics, Polish Academy of Sciences (Warsaw, Poland)

May 2023: *Conference* – Stochastic Modeling and Control; Mathematical Research and Conference Center (Bedlewo, Poland)

Nov 2022: *Workshop* – STochastic Analysis and Related Topics (START 2022); TU-Dresden (Germany)

Nov 2022: *Workshop* – Algorithmic game theory, mechanism design, and learning; Politecnico di Torino

Sep 2022: *Conference* – Advances in stochastic control and optimal stopping with applications in Economics and Finance; CIRM Luminy (Marseilles, France)

July 2022: *Workshop* – Stochastic Games: Theory and Computational Aspects; Stony Brook Centre for Game Theory (US)

June 2022: *Conference* – 9th Colloquium on BSDEs and Mean Field Games (Annecy, France) (session on: Optimal Switching and Stopping Problems)

June 2022: *Conference* – 3rd Italian Meeting on Probability and Mathematical Statistics; University of Bologna (session on: Partial Information, Stochastic Models and Applications)

May 2022: *Workshop* – Stochastic Games and Martingale Optimal Transport; University of Milano

July 2020: *Conference* – SIAM Annual Meeting 2020 (Toronto, Canada) (minisymposium: Stochastic Games), invited by M. Ludkovski (Univ. of California) and R. Sircar (Princeton)

July 2019: *Workshop* – Equilibria in Markets, Strategic Interactions, and Complex Systems; ZiF Centre (Bielefeld, Germany)

July 2019: *Conference* – International Congress on Industrial and Applied Mathematics; University of Valencia (Spain) (minisymposium: Stochastic Differential Equations and Applications in Physics and Finance), invited by A. Pascucci (Univ. of Bologna)
Dec 2017: *Workshop* – Optimal stopping in complex environments; IMW University of Bielefeld (Germany)
Sep 2017: *Conference* – SIAM-LMS conference on Mathematical Modelling in Finance; Imperial College London (UK)
July 2017: Inaugural Conference of the Centre for Mathemtical Research in Economics and Finance; University of Manchester (UK)
March 2016: *Workshop* – Skorokhod embeddings, martingale optimal transport and applications; University of Oxford (UK)
Jul 2015: *Workshop* – Strategic Aspects of Optimal Stopping and Control in Economics and Finance; University of Bielefeld (Germany)
May 2015: *Workshop* – 13th Viennese workshop on Optimal Control and Dynamic Games; TU Vienna (Austria) (special session: Optimal Control in Finite and Infinite Dimensions and Application to Economics)
May 2014: *Conference* – SIAM Optimization 2014; San Diego (US) (minisymposium: Stochastic Optimal Control and Applications)

Selected Invited Talks at Seminar Series

Dec 2023: EM Lyon Business School
Nov 2023: Christian-Albrechts University Kiel
Jan 2023: King's College London: Probability Seminars
June 2021: Politecnico di Torino (online): DISMA seminar series
Apr 2021: ETH Zurich (online):
"Talks in Financial and Insurance Mathematics"
Mar 2021: Univerity of Sydney (online)
Dec 2020: University Carlos III of Madrid (online)
Oct 2020: FiME seminar series at Institut Henri Poincaré (Paris - online)
Jan 2020: Scuola Normale Superiore di Pisa seminar series:
"Probability and Quantitative Finance"
Dec 2019: Toulouse School of Econonmics
Nov 2019: Berlin research seminar series:
"Stochastic Analysis and Stochastics of Financial Markets"
Oct 2019: Queen Mary university of London
May 2019: University of Bologna
Apr 2019: University of Turin
Nov 2018: ENSAE ParisTech, Paris
Nov 2018: Department of Statistics, London School of Economics
Oct 2018: School of Mathematics, University of York
Oct 2018: Department to Statistics, University of Warwick
Dec 2017: Department of Mathematics, Queen Mary University of London
March 2017: Department of Mathematics, King's College, London
Nov 2016: Department of Statistics, University of Warwick
Feb 2013: Department of Mathematical Sciences, University of Bath
Oct 2012: (CAKE talks) Centre for Mathematical Sciences (CMS) of Cambridge
May 2012: Friedrich-Schiller University of Jena, Department of Mathematics and Computer Science
Nov 2011: University of Vienna, Department of Mathematics

Selected Contributed Talks

Sep 2018: *Workshop* – BSDEs, Information and McVlasov Equations; University of Leeds (UK)
March 2017: *Workshop* – Stochastic Models and Control; University of Trier (Germany)
Jul 2015: *Conference* – 38th Conference on Stochastic Processes and Their Applications; University of Oxford (UK)
May 2015: *Workshop* – Optimal Stopping and Applications; University of Torino
March 2015: *Workshop* – Stochastic Analysis, Controlled Dynamical Systems and Applications; University of Jena (Germany)
Sep 2014: *Conference* – Stochastics of Environmental and Financial Economics; Oslo (Norway)

Jun 2013: 6th AMaMeF and Banach Center Conference - Advances in Mathematics of Finance; Warsaw (Poland)

Aug 2012: 5th European Summer School in Financial Maths; Ecóle Polytechnique-Paris (France)

Academic Visits

March 2020: Visit to University of Paris Diderót (1 week fully funded), invited by R. Aïd (postponed due to COVID-19)

Jan 2020: Visit to Scuola Normale Superiore di Pisa (1 week), invited by G. Livieri and M. Ghio

Dec 2020: Visit to Toulouse School of Economics (1 week funded by EPSRC EP/R021201/1), invited by S. Villeneuve

Nov 2019: Visit to ENSAE ParisTech (1 week funded by EPSRC EP/R021201/1), invited by P. Tankov

Oct 2019: Visit to Queen Mary University of London and London School of Economics (1 week funded by EPSRC EP/R021201/1), invited by N. Rodosthenous and L. Campi

Sep 2019: Visit to University of Uppsala (1 week funded by EPSRC EP/R021201/1), invited by E. Ekström

Jul 2019: Visit to ENSAE ParisTech (1 week funded by EPSRC EP/R021201/1), invited by P. Tankov

May 2019: Visit to University of Bath (1 week funded by EPSRC EP/R021201/1), invited by A. Cox

Jan 2019: Visit to Isaac Newton Institute (2 weeks partly funded) for the programme *Mathematics of Energy Systems*

Dec 2018: Visit to University of Uppsala (1 week partly funded by EPSRC EP/R021201/1), invited by E. Ekström

Nov 2018: Visit to ENSAE ParisTech (1 week fully funded), invited by P. Tankov

Oct 2018: Visit to University of Bath (1 week funded by EPSRC EP/R021201/1), invited by A. Cox

May 2018: Visit to ETH Zurich (1 week funded by EPSRC EP/R021201/1), invited by M. Soner

March 2018: Visit to University of Uppsala (1 week fully funded), invited by E. Ekström

Nov 2017: Visit to Rice University, Houston, TX (2 weeks fully funded) invited by P. Ernst

Nov 2016: Visiting Professor (1 month fully funded) at LUISS University of Rome, Italy, invited by F. Gozzi

Sep 2016: Visit to University of Bielefeld (1 week fully funded), invited by G. Ferrari

July 2016: Visit to University of Le Mans (2 weeks fully funded), invited by S. Hamadene

June 2016: Visit to University of Uppsala (1 week fully funded), invited by E. Ekström

Sep 2015: Visit to Toulouse School of Economics (2 weeks fully funded), invited by C. Grün

May 2013: Visit to Hausdorff Research Institute for Mathematics (HIM), University of Bonn in the framework of the Trimester Program "Stochastic Dynamics in Economics and Finance" (1 month fully funded)

Postdocs' Supervision

2023 – ongoing: A. Bovo (University of Turin)

2022 – ongoing: C.C. Graciani (Scuola Superiore Meridionale)

PhD Students' Supervision

2023 – ongoing: P. Murialdo (lead supervisor; Scuola Superiore Meridionale).
Project: Agent-based models for climate economics

2022 – ongoing: Y. Cao (co-supervisor; Univ. of Leeds). *Project*: Exit games with partial information

2020 – ongoing: J. Smith (lead supervisor; Univ. of Leeds).
Project: Stochastic games with asymmetric information

2019 – 2022: A. Bovo (lead supervisor; Univ. of Leeds). *Thesis*: Stopper vs. singular-controller games

2018 – 2021: External (lead) PhD supervisor of A. Milazzo (Imperial College). *Thesis*: Various Topics in Stochastic Control and Measure Theory.

2017 – 2021: C. Cai (lead supervisor; Univ. of Leeds). *Thesis*: Optimal Stopping Methods for Multidimensional Problems, Pricing and Hedging of American Options.

2017 – 2021: N. Merkulov (co-supervisor; Univ. of Leeds). *Thesis*: Value and Nash Equilibrium in Games of Optimal Stopping.

2016 – 2020: J. Anquandah (lead supervisor; Univ. of Leeds). *Thesis*: Optimal Stopping for Actuarial Use: A Study on Unemployment Insurance Schemes.

PhD Examiner

Dec 2023: External examiners PhD thesis M.M. Marchione (Sapienza Univ. of Rome)

Mar 2023: Examiners' board member for PhD thesis M. Martini (Univ. of Milano Statale)

Jan 2023: External examiner PhD thesis A. Guada-Azze (University Carlos III Madrid)
Feb 2021: External examiner PhD thesis H. Sun (University of Warwick)
Nov 2020: External examiner PhD thesis J.M. Pedraza Ramirez (London School of Economics)
Jan 2020: External examiner PhD thesis M. Brachetta (University of Chieti-Pescara)
Oct 2019: External examiner PhD thesis Q. Zeng (University of Warwick)
Apr 2019: External examiner PhD thesis of A. Tiplea (University of Sidney)
June 2018: Internal examiner PhD thesis of Z. He (University of Leeds)

Teaching

At the University of Turin:

- *Probability for Finance* (MSc, 35+ students): designer of the module and module leader A.Y. 2022-2023 and 2023-2024.
- *Stochastic Calculus and Mathematical Finance* (MSc, 35+ students): designer of the module and module leader A.Y. 2022-2023 and 2023-2024 (joint with B. Lods).
- *Mathematics for Finance* (MSc, 35+ students): module leader A.Y. 2021-2022 (joint with B. Lods) and full redesign of the module's syllabus.
- *Probability and Statistics* (BSc, 35+ students): designer of the module and module leader A.Y. 2020-2021, 2021-2022, 2022-2023 and 2023-2024.
- In 2021, I proposed and implemented the overhaul of the MSc module *Mathematics for Finance*, which was replaced by the modules *Probability for Finance* and *Stochastic Calculus and Mathematical Finance*.

At Collegio Carlo Alberto (Turin):

- *Probability* (MSc and PhD – Allievi Program): designer of the module and module leader A.Y. 2021-2022, 2022-2023 and 2023-2024.
- *Measure Theory* (MSc and PhD – Allievi Program): module leader A.Y. 2020-2021.

At Scuola Superiore Meridionale (Naples):

- *Stochastic Differential Equations and Singular Stochastic Control* (PhD): designer of the module and module leader A.Y. 2020-2021, 2021-2022, 2022-2023 and 2023-2024.

At the University of Leeds:

- *Financial Mathematics I* (BSc, 300+ students): module leader A.Y. 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020; my role involved delivering lectures, coordinating 15+ tutorial classes, setting and marking fortnightly assignments, setting and marking exam papers; my module counted as exemption for the actuarial qualification awarded from the Institute and Faculty of Actuaries (IFoA, UK).
- *Financial Mathematics II* (BSc): delivering exercise classes A.Y. 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020.
- *Financial Mathematics III* (BSc): delivering exercise classes A.Y. 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020.
- In 2019 I designed from scratch the MSc/BSc modules (Advanced) Stochastic Calculus for Finance (both modules are still running to this day).
- In 2018 I was member of the committee for the review of the BSc in Financial Mathematics at the University of Leeds. Together with two colleagues we reviewed and updated the teaching provision of the BSc in Financial Mathematics. This exercise involved changing the syllabi of various modules and aligning the taught material to the requirements of the Institute and Faculty of Actuaries (IFoA, UK) in order to get (partial) accreditation of the programme.
- From 2016 to 2018 I was coordinator of MSc dissertations in Financial Mathematics; my role involved coordinating work of 8-10 academic supervisors each year, distributing projects to students and overseeing the overall marking process.

At Sapienza University of Rome:

- From 2008 to 2011, during my PhD, each year I was tutor for *Mathematics I* (200+ students, BSc in Economics) at Sapienza University of Rome; I was running weekly exercise classes and offering office hours.

BSc/MSc Supervision

Since 2020: I supervised 1 MSc thesis (V. Camerin) and 2 BSc theses (G. Bertone, L. Sala) at the University of Torino

From 2015 to 2020: Each year I was supervisor of 6 BSc projects and 3 MSc dissertations in Financial Mathematics (Leeds)

From 2015 to 2017: I was supervisor of 6 Year-in-Industry projects in Leeds (students on 1-year industrial placement); my role included one visit to each student at their workplace and the assessment of their final report

May 2022: Supervisor 12-week MSc research-project of M. Ibn Sall (ENSTA Paris-Tech)

Sep 2019: Co-supervisor MSc Thesis of V. Pieropan (University of Trento)

May 2019: Co-supervisor 12-week MSc research-project of C. Michon (ENSTA Paris-Tech)

May 2018: Co-supervisor 12-week MSc research-project of M. Germain (ENSTA Paris-Tech)

Oct 2017: Supervisor MSc Thesis in Mathematics of F. Capellini (University “Statale” of Milano)

May 2016: Supervisor 12-week MSc research-project of I. El Hanafi (ENSTA Paris-Tech)

May 2015: Supervisor 12-week MSc research-project of D. Louvet (ENSTA Paris-Tech)

May 2014: Supervisor 12-week MSc research-project of G. Baccari (ENSTA Paris-Tech)

Public Engagement

In 2023 I featured as one of 3 academics in the video shot at the Univ. of Turin for the promotion of our (English-taught) BSc in Economics. As deputy director of the MSc in Quantitative Finance and Insurance, each year I present the course to prospective students in multiple occasions during Open Days and formal meetings. During my time in Leeds I was a representative of the Financial Mathematics group at the University Open Days.

Personal Development

May 2018: Leeds Academic Development (Online) - “Role of the Internal Examiner”

Apr 2017: Leeds SDDU Training - “Rectruiting and supervising PGRs”

Sept 2016: Higher Education Academy training - “New to teaching in STEM: Maths, Stats, Operational Res.”, University of Greenwich

Jan 2016: Leeds SDDU Training - “Lecturing for researched based learning”

2014-2015: Organisation of the *Career Development Forum*’s meetings in the School of Mathematics of the University of Manchester