

Giovanna Apicella

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Curriculum Vitae

Current academic position

Assistant Professor (RTD-b), Department of Economics and Statistics (DIES), University of Udine.

Former academic position

16.07.2018-30.06.2022 Post Doc, Faculty of Mathematics and Statistics, School of Economics and Political Science, University of St. Gallen.

Lectureships

Autumn Semester 2022: Advanced Mathematics (9 ECTS). Master in Economics. University of Udine.

Autumn Semester 2021: *Mathematics A (Reduced Speed): Exercises, Group 1* (2.00 SWH). Assessment Year. University of St. Gallen.

Autumn Semester 2020: • *Mathematics A (Normal Speed): Exercises, Group 1* (1.00 SWH). Assessment Year. University of St. Gallen.

- *Mathematics for Economists* (6 ECTS, 4.00 SWH). BVWL (Bachelor Studies-Major in Economics), University of St. Gallen.
Topics: Mathematical Analysis, Dynamic Systems and Stability, Economic Optimization; Probability Theory and Stochastic Processes.

Autumn Semester 2019: *Mathematics for Economists* (6 ECTS, 4.00 SWH). BVWL (Bachelor Studies-Major in Economics), University of St. Gallen.

Autumn Semester 2018: • *Mathematics A (Normal Speed): Exercises* (1.00 SWH). Assessment Year, University of St. Gallen.

- *Mathematics A (Reduced Speed): Exercises, Group 1* (2.00 SWH). Assessment Year, University of St. Gallen.

Education

Doctor of Philosophy - Doctor Europaeus degree in School of Statistical Sciences-Curriculum Actuarial Sciences, Sapienza University of Rome (Italy). January 2018. Grade: excellent.

Ph.D. Supervisor: Prof. Marilena Sibillo.

Ph.D. thesis: *Stochastic Mortality in a Complex World: Methodologies and Applications within the Affine Diffusion Framework.*

Master's degree in Statistical Sciences for Finance (Actuarial, financial and economic statistics - LM-83), University of Salerno (Italy). January 2014. Grade: 110 cum laude/110.

Master's thesis in Financial and actuarial mathematics Advanced Course: *Markov and semi- Markov Models in Long-term Health Insurances*.

Bachelor's degree in Economics (Economics - L-33), University of Salerno (Italy). December 2011. Grade: 110 cum laude/110.

Bachelor's thesis, in Quantitative Methods: *La transizione del rating sovrano e la sfiducia dei mercati: il caso Italia*.

Diploma di Maturità : (grade: 100 cum laude/ 100), 2008, Liceo Classico Publio Virgilio Marone, M. S. Severino, Italy.

PhD fellowships, research projects, and awards

Post-Doc Fellowship- 01.10.2019-31.12.2021 Post-Doc Fellowship under the Swiss National Science Foundation (SNSF) project 100018.189093 "Combining Actuarial and Behavioural Perspectives to the Understanding of Longevity Risk" at the University of St. Gallen - School of Economics and Political Science (SEPS).

Project Leader: Enrico G. De Giorgi. *Approved amount:* 237'370.00 CHF.

Keywords: mortality risk, subjective probabilities, longevity risk, annuity puzzle, behavioural economics, retirement plan (more detailed information available at <https://p3.snf.ch/project-189093>).

PhD Thesis Award- 2019. AMASES Award for the best doctoral dissertation defended in the period from June 1st, 2015, to May 31st, 2018, granted by the Italian Association for Mathematics Applied to Economic and Social Sciences (AMASES).

PhD fellowship- Nov. 2014 - Oct. 2017. PhD fellowship from Sapienza University of Rome.

Mobility Fellowship- Feb.-Apr. 2017. Mobility fellowship granted by Sapienza University of Rome, based on competition among the students enrolled in Sapienza PhD Programmes (Cycles and 30 and 31). Call for application n. 4389, "Fondo per il sostegno dei giovani e favorire la mobilità degli studenti", Italian Ministry of Education, University and Research (MIUR).

Approved amount: 3'000 euros.

Host Institution: Cass Business School (now Bayes Business School), City, University of London, London, UK.

Awarded research project: *Study on the interest and mortality rates future dynamics: what evidence about their dependence?*.

Supervisor: Prof. Lucio Sarno.

Research Traineeship, Dec. 2015 - May 2016 Fulltime Research Trainee for the Scientific Advisor of the CEO and Chairman of SCOR SE, Dr. Michel Dacorogna, at SCOR Services Switzerland Ltd., Zürich (CH).

Research topic: Long-term dependence between mortality and interest rate risks.

International Collaboration. Nov. 2017 - Jul. 2018 Collaboration with an international team from the University of Waterloo (Canada) and the University of Kent (UK), within the Phase 3 of their research project *Population Aging, Implications for Asset Values, and Impact for Pension Plans: An International Study*, funded by the Society of Actuaries. Project Leader: Doug Andrews (details about the project available at: <https://www.soa.org/resources/research-reports/2016/2016-population-aging-implications-impact>).

Master's Thesis Award- 2014. "Carmino Sica" Award (Ninth Edition, 2013-2014), granted by Rotary Club Salerno Picentia (Rotary International - District 2100 Italy), for the relevant quality of the Master's thesis.

Conference and seminar presentations

- 2022** A.M.A.S.E.S. XLVI Annual Conference, September 24, 2022 (*"The gender longevity gap: actuarial and behavioural Perspectives"*);
25th International Congress on Insurance: Mathematics and Economics, July 14, 2022 (*"Longevity and financial risk-taking"*);
Mathematical and Statistical Methods for Actuarial Sciences and Finance. MAF 2022, University of Salerno, April 20, 2022 (*"Gender Attitudes Toward Longevity and Retirement Planning: Theory and Evidence"*);
Invited fly-out seminar at the Department of Economics and Finance of Tor Vergata University of Rome, February 7, 2022 (*"A behavioural gap in survival beliefs"*).
- 2021** XIII National Congress of Actuaries, Italy, November 11, 2021 (*"Longevity and financial risk-taking"*);
AMASES XLV Conference, online, September 15, 2021 (*"A behavioural gap in survival beliefs"*);
Econ Brown Bag Research Seminar 2021, University of St. Gallen (HSG), March 17, 2021(*"A behavioural gap in survival beliefs"*);
invited scientific talk at the School of Economics and Political Science (SEPS), University of St. Gallen (HSG), Switzerland, April 30, 2021 (*"A behavioural gap in survival beliefs"*).
- 2020** Invited scientific talk at the School of Management of the University of St. Gallen (HSG), September 24, 2020 (*"Subjective survival beliefs and actuarial predictions: understanding two different mechanisms to form and update longevity forecasts"*).
- 2019** AMASES XLIII Conference, Perugia, September 11, 2019 (*"Improving the assessment of longevity risk using survey data on subjective beliefs"*);
23rd International Congress on Insurance: Mathematics and Economics (IME 2019), Munich, July 10, 2019 (*"Actuarial predictions and subjective survival expectations: comparing two ways to foresee the random future"*);
(*invited*) Polimi Finance Lunch Seminar, Politecnico of Milan, May 14, 2019 (*"Actuarial and behavioural approaches to longevity modelling"*).
- 2018** Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF 2018), Madrid, April 4, 2018, (*"Improving Lee-Carter forecasting: methodology and some results"*).
Fifth Annual Workshop of the PhD School of Statistical Sciences, Sapienza University of Rome, February 14, 2018 (*"Using Interest Rate Models to Improve Mortality Forecast"*).
- 2017** AMASES XLI Conference, Cagliari, September 16, 2017 (*"Using Interest Rate Models to Improve Mortality Forecast"*);
(*invited*) "Actuarial Teachers' and Researchers' Conference", University of Kent, July 17, 2017, (*"A Methodological Approach for Studying the Prospective Dependence between Mortality and Interest Rate Risks"*);
(*invited*) SCOR Seminar, Zurich, June 20, 2017 (*"Using Interest Rate Models to Improve Mortality Forecast"*);
"Recent Developments in Dependence Modelling with Applications in Finance and Insurance-Fourth Edition", Aegina, May 31, 2017 (*"Are mortality and interest rate risks likely to be dependent in the future?"*);
2017 Winter School on "Perspectives on Actuarial Risks in Talks of Young researchers (PARTY)",

Ascona, January 12, 2017, (“*Checking the existence of dependence between mortality and interest rate risks within the Feller process framework*”).

- 2016** UNISActuarial School 2016, University of Salerno, October 25, 2016 (“*A Comprehensive Study of Mortality Dynamics in Ten Developed Countries Using the Feller Process*”);
AMASES XL, University of Catania, September 17, 2016 (“*Studying the dynamic interactions between mortality and interest rate risks: some investigations*”) ;
(**invited**) Waterloo International Workshop on the Implications of Aging on Asset Values, University of Waterloo, Canada, June 22, 2016 (“*Investigating Short-run and Long-run Equilibrium Relationships between Mortality and Interest Rate Risks*”);
Astin Colloquium Lisboa 2016, Lisbon (“*Investigating Short-run and Long-run Equilibrium Relationships between Mortality and Interest Rate Risks*”);
IbIt 2016-XVI Iberian-Italian Conference on Financial and Actuarial Mathematics, Paestum, May 27, 2016 (“*A Comprehensive Study of Mortality Dynamics in Ten Developed Countries Using the Feller Process*”).

Publications

- Apicella, G. and E. De Giorgi (2022), “Gender Attitudes toward Longevity and Retirement Planning: Theory and Evidence”. In: Marco Corazza, Cira Perna, Claudio Pizzi and Marilena Sibillo (eds.), **Mathematical and Statistical Methods for Actuarial Sciences and Finance. MAF 2022**, pp. 19-24. Springer, Cham. https://doi.org/10.1007/978-3-030-99638_4.
- Apicella, G., M. Dacorogna, E. Di Lorenzo, and M. Sibillo (2019): “Improving the Forecast of Longevity by Combining Models”, **North American Actuarial Journal**, 23(2), 298-319, <https://doi.org/10.1080/10920277.2018.1556701>.
- Apicella, G., and M. Sibillo (2018): “Corrective factors for longevity projections in a dynamic context”, **European Actuarial Journal**, 8(1), 53-68, <https://doi.org/10.1007/s13385-018-0166-6>.
- Apicella, G., M. Dacorogna, E. Di Lorenzo, and M. Sibillo (2018). Improving Lee-Carter forecasting: methodology and some results. **Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF 2018)**, pp. 57-61. Editors: Corazza, M., Durbán, M., Grané, A., Perna, C., Sibillo, M. (Eds.), Springer, Cham. ISBN: 978-3-319-89823-0 https://link.springer.com/chapter/10.1007/978-3-319-89824-7_10.
- Apicella, G. and M. Dacorogna, (2016): “A Comprehensive Study of Mortality Dynamics in Ten Developed Countries Using the Feller Process. *Proceedings of the XVI Iberian Italian Conference on Financial and Actuarial Mathematics*. Pages 7-11. ISBN: 9788861970601, http://www.unisa.it/uploads/13833/ibit_proceedings.pdf

Research magazine contributions

- Apicella, G. and E. G. De Giorgi (2021): “A new perspective on longevity risk perception”. *EU Research SPR21/P78*. ISSN (Print): 2752-4728. ISSN (Online): 2752-4736.

Other activities and professional memberships

- Advising:** Supervisor for the BSc Thesis “Behavioural and gender-based perspectives about Coronavirus (COVID-19) pandemic cases” , Major in Economics (VWL), School of Economics and Political Science (SEPS), University of St. Gallen, February 2021.

Cultore della Materia: Academic Years 2016/2017 and 2017/2018, for the following courses held by Prof. Marilena Sibillo at the University of Salerno: *Actuarial Mathematics and Mathematical Finance, Stochastic Finance, Quantitative Methods, Financial Choice and Investments*.

Member of: FinTech Research Network, AMASES (Italian Association for Mathematics Applied to Economics and Social Sciences), ARIA (American Risk and Insurance Association), European Economic Association (EEA).

Referee for Scientific Journals: Decisions in Economics and Finance, Springer Nature Switzerland AG, Electronic ISSN: 1129-6569; Quantitative Finance and Economics, AIMS Press, ISSN: 2573-0134.

Member of the Organizing Committee for: UNISActuarial School 2016, IbIt 2016-XVI Iberian-Italian Conference on Financial and Actuarial Mathematics.

Attended schools and workshops: *Actuarial School* (Feb.-Jun. 2018, Inter Academy Center for Actuarial Science and Risk Management (CISA), Italy), *Models for non-life insurance* (Jan.-Feb. 2018, Inter Academy Center for Actuarial Science and Risk Management (CISA), Italy), *Economic Scenario Generators* (June 21-23, 2017, Zurich, Prime Re Academy), *Amplify Trading, Trading & Financial Market Analysis* (April 10-12, 2017, Cass Business School, City, University of London), *29th International Summer School 2016 of the Swiss Association of Actuaries (SAA) on the subject Quantitative Risk Management: Concepts, Techniques and Tools* (August 15-19, 2016, University of Lausanne).

Skills and languages

Languages: Italian (mother tongue), English (fluent), German (basic).

Programming: R, MATLAB.

Tools: L^AT_EX; Microsoft Office.

Databases used for current research : “The University of Michigan Health and Retirement Study ” (HRS), “The Survey of Health, Ageing and Retirement in Europe” (SHARE), “The Human Mortality Database” (HMD).