Benedetta Salterini

Curriculum Vitae

Current position

2019-present **PhD student in Mathematics, Computer Science, Statistics**, *University of Firenze, University of Perugia and Istituto Nazionale di Alta Matematica "F.Severi" - Rome (INdAM)* .
XXXV cycle scholarship winner.
Supervisors: Prof. Katia Colaneri, Prof. Alessandra Cretarola.
Tutor (internal to the PhD School): Prof. Massimo Giulietti.

Education

2016-2018 **Master Degree in Mathematics**, *University of Perugia*, (30/11/2018).
Thesis title: Indifference pricing of insurance derivatives in regime-switching market models.
Supervisor: Prof. Alessandra Cretarola.
Final Mark:110/110 cum laude.

2012-2016 **Bachelor Degree in Mathematics**, *University of Perugia*, (25/02/2016).
Thesis title: A utility maximization problem under model uncertainty.
Supervisor: Prof. Alessandra Cretarola.
Final Mark: 110/110.

2007-2012 **High School Diploma**, *Liceo Scientifico Jacopone da Todi*.
Final Mark: 100/100.

Internships

2018 **ALEF Advanced Laboratory Economics and Finance Srl**, *Perugia*.
150-hour traineeship as part of the Master Degree program in Mathematics.
Task: Methods for estimating claims reserves.
Company tutor: Dr. Enrichetta Tei.
Academic tutor: Prof. Giulianella Coletti.

Computer Skills

Microsoft Office, LaTeX, SAS, R, Matlab.

Language Skills

Italian	Mother Tongue	
English	Good	*CAMBRIDGE Certification with mark B2 (May 2019)*
French	Scholastic	

Talks

2021 ***Optimal investment and proportional reinsurance in a Markov modulated market model under forward preferences***, United as One, Virtual 24th International Congress on Insurance: Mathematics and Economics., July, 5-9 2021.

2021 ***Optimal investment and proportional reinsurance in a Markov modulated market model under forward preferences***, XLV A.M.A.S.E.S. meeting, University "Mediterranea" of Reggio Calabria (online due to COVID-19 epidemiological situation).
September, 13-18 2021

Visiting periods abroad

15/11/21-18/03/22 **Technical University of Vienna (Austria)**, *Project: Optimal insurance/reinsurance design under utility preferences.*
Supervisor: Dr. Julia Eisenberg

Schools

2021 **Advanced Course on Numerical Methods in Finance**, *Intensive Research Programme on Quantitative Finance*, Barcelona (online due to COVID-19 epidemiological situation), May, 31 - June, 4 2021.
Attendance with grant.

Teaching support activity

A.Y. 2020/21 **Tutor for the courses "PROBABILITA' E STATISTICA I" (bachelor degree in Mathematics) and "CALCOLO DELLE PROBABILITA' E STATISTICA MATEMATICA" (bachelor degree in Computer Science)**, *University of Perugia*, December, 1 2020 - February, 26 2021.

Other experiences

2019 **Intensive English Course**, Edinburgh (Scotland), August, 12-23 2019.
A two-week English Language Programme at Kaplan International Edinburgh.
Final level: Advanced

2019 **XLIII A.M.A.S.E.S. meeting**, University of Perugia, September, 9-11 2019.
Attendance at conferences and activities to support the organization of the meeting.

2020 **Workshop on Nonlinear PDEs and Applications on the occasion of the retirement of Professor Maria Cesarina Salvatori**, University of Perugia, 3-5 February 2020.
Attendance at conferences.

2022 **XXII Workshop on Quantitative Finance**, University of Rome Tor Vergata, March, 31 - April, 1 2022.
Attendance at conferences.

Research project grants

2020 – 2021 Member of the INdAM–GNAMPA Research Project 2020 "Una classe di problemi di ottimizzazione in ambito attuariale ed economico", funded by the National Group of Mathematical Analysis, Probability and its Applications (GNAMPA) of the Italian National Institute for Higher Mathematics "Francesco Severi" (INdAM). (Scientific coordinator: Prof. Claudia Ceci)

2022 Member of the INdAM–GNAMPA Research Project 2022 "Problemi di riassicurazione e investimento ottimi per dinamiche di tipo Hawkes", funded by the National Group of Mathematical Analysis, Probability and its Applications (GNAMPA) of the Italian National Institute for Higher Mathematics "Francesco Severi" (INdAM). (Scientific coordinator: Prof. Claudia Ceci)

Publications

Colaneri K., Cretarola A., Salterini B. Optimal investment and proportional reinsurance in a regime-switching market model under forward preferences. *Mathematics*, 9(14) : 1610, 2021.

Working Papers

Cretarola A. and Salterini B. Utility-based indifference pricing of pure endowments in a Markov-modulated market model. *Submitted.*

Colaneri K., Eisenberg J. and Salterini B. Some optimisation problems in insurance with a terminal distribution constraint. *Submitted.*

Colaneri K., Cretarola A. and Salterini B. Optimal investment and reinsurance under exponential forward preferences. *Submitted.*

Perugia, August 25, 2022

Benedetta Salterini