Claudia Ceci
Curriculum Vitae

Current position

March 2011- present: Full Professor of Probability (SSD MAT/06 Probabilità e Statistica Matematica), Department of Economics, University "G. d'Annunzio" of Chieti-Pescara.

Education and Qualifications

- 1990, Bachelor Degree in Mathematics, University of Rome "La Sapienza", with grades *110/110 cum laudem,* Thesis: "Stochastic Control Problems: jump processes";
- 1996, Ph.D. in Probability, University of Rome "La Sapienza" with the Thesis: "Trees and Branching processes: discussion of some stochastic control problems";
- 2014, National scientific qualification for Full Professorship, (13-D4) SSD SECS-S/06, Mathematical Methods of Economics, Finance and Actuarial Sciences (validity: February 5th 2014 - February 5th 2020);
- Summer Schools: 1990 University of Perugia, 1991 Cortona, 1993 "Probability Theory", Columbus, Ohio (USA), 1995 "Probability Summer School", Saint Flour, France.

Grants and Acknowledgments

- Grant C.N.R. for undergraduates 1989-1990 (n.209.01.52, 1989);
- Bachelor Thesis Award in memory of Prof. G. Del Grosso , Department of Mathematics, University of Rome, "La Sapienza", 1990;
- Grant INdAM 1990-1991, University "La Sapienza";
- Grant C.N.R. (n.203.01.58, 1990), "Laboratoire de Probabilités", Jussieu-University of Paris VI, from November 1991 to November 1992, tutors: Prof. Nicole El Karoui, Laurent Mazliak.

Employment

- Researcher of Analysis and Probability, University of Florence from 1993 to 1997;
- Associate Professor of Probability (SSD MAT/06), University "G. d'Annunzio" of Chieti-Pescara from 1998 to 2010;
- Full Professor of Probability (SSD MAT/06), Department of Economics, University "G. d'Annunzio" of Chieti-Pescara from 2011 - present.

Academic Responsibility

- Dean of the Department of Science, University of "G. d'Annunzio", November 2011- February 2012.
- Coordinator of the Ph.D Program in Science at the University "G. d'Annunzio", 2013-2016.
- Director of the Degree Course Business and Economics (Presidente CdL in Economia e Commercio, CLEC, L-33), Department of Economics, University "G. d'Annunzio", November 2014 – today.

Academic Boards

- PhD Program in Science, University of "G. d'Annunzio", from 2004 to 2016;
- Giunta of the School of Economics, SEAGS, University of "G. d'Annunzio", from 2014 – today
- PhD Program Business Institutions and Markets (BIM), University of "G. d'Annunzio", from 2020, April.

Affiliation to Academic Institutions

- IndAM (GNAMPA) (Italian National Group for Analysis, Probability and Applications) from 2000-present;
- AMASES (Italian Association of Mathematics Applied to Economics and Social Science) from

2007-present
- UMI (Unione Matematica Italiana) from 2011-present.

RESEARCH PROJECTS

- **Scientific responsible of the Unit of Chieti-Pescara,** MIUR COFIN 1999 "Stochastic Processes, Stochastic Calculus and Applications" (PI Prof. M. Pratelli);
- **Scientific responsible of the Unit of Chieti-Pescara,** PRIN 2006 "Stochastic Methods in Finance" (PI Prof. W. Runggaldier);
- **Scientific responsible of the Unit of Chieti-Pescara,** PRIN 2008 "Probability and Finance" (PI Prof. M. Frittelli).
- **Responsible** of GNAMPA 2016 (INdAM) project: "Hedging problems for credit derivatives under restricted information", 2016 February-2017 February;
- **Responsible** of GNAMPA 2020 (INdAM) project: "A class of optimization problems for Insurance and Economics";
- **Responsible** of research projects (ex 60%), University "G. d'Annunzio", from 1997 - today.

- Participant PRIN 1997 (PI Prof. P. Baldi);
- Participant PRIN 2001 (PI Prof. M. Pratelli);
- Participant PRIN 2004 (PI Prof. M. Pratelli);
- Participant GNAMPA 2014 (INdAM) "Hedging strategies for financial/insurance markets under partial informations", 2014 February-2015 February;
- Participant GNAMPA 2015 (IndAM)"BSDEs under incomplete information and financial applications ", 2015 February-2016 February;
- Participant GNAMPA 2017 (INdAM) "Indifference pricing and optimal hedging for unit-linked insurance contracts under partial informations", 2017 February -2018 February;
- Participant GNAMPA 2019 (IndAM) "Problemi di controllo ottimo stocastico con osservazione parziale in dimensione infinita", 2019 March - 2020 March.

Visiting Researcher
- 1993: 24/05-30/05, 08/12-17/12 "Laboratoire de Probabilités", Jussieu-University of Paris VI;
- 1994: 02/05-07/05 "Laboratoire de Probabilités", Jussieu-University of Paris VI;
- 1995: 07/05-14/05 "Laboratoire de Probabilités", Jussieu-University of Paris VI;
- 1999: 06/05-14/05 "Laboratoire de Probabilités", Jussieu-University of Paris VI;
- 2002: 02/11-10/11 "Laboratoire de Probabilités", Jussieu-University of Paris VI.

Visiting Professor
- 25/11/2016-2/12/2016 Institute for Statistics and Mathematics,Vienna University for Economics and Business WU;
- 20-27/01/2017 Unité de Mathématiques Appliquées (UMA), ENSTA ParisTech, Paris;
- 12-17/03/2017 Department of Mathematics , University of Padua;
- 15-20/05/2017 Département de Mathématiques , University of Evry, Paris.

TEACHING
University "G. d'Annunzio" of Chieti-Pescara
AA 2019/2020
- Titoli Derivati e Gestione del Rischio I (6 cfu CLEC-EF)
- Titoli Derivati e Gestione del Rischio II (9 cfu CLECM-EF)
AA 1998/99-2018/19

- Calcolo delle Probabilità (dall'a.a. 2002/03 al 2006/07 Clei + Clef)
- Complementi di Matematica per l'Economia e la Finanza (dall'a.a. 2002/03 al 2007/08 Clei)
- Matematica Generale I (a.a. 1998/99 Clep)
- Matematica Generale (a.a. 2010/11 – 2015/16 Clea)
- Matematica Finanziaria (a.a.1997/98 Clep, 2005/06- 2006/07 Clec+Clef)
- Modelli matematici per le decisioni di investimento (6 cfu CLECM-EF)
- Processi Stocastici (a.a. 1998/99 Clep)
- Ricerca Operativa (a.a. 2001/02 Clef)
- Statistica Matematica (a.a. 2007/08-2008/09-2009/10 Clei + Clef)
- Titoli Derivati e Gestione del Rischio (dall'a.a. 2007/08 al 2018/19 Clef, Clecef)
- Titoli Derivati e Gestione del Rischio II (a.a. 2017/18-2018/19 ClecM-EF)
- Teoria delle Decisioni (a.a. 2000/01 Clea).

A.A. 2016/2017 sabbatical leave;
A.A. 1999/2000 maternity leave;
A.A. 2001/2002 maternity leave.

University of Florence, 1993/94-1996/97
- Esercitazioni, Istituzioni di Matematica I (a.a.1993/94, 1994/95, 1996/97)
- Complementi di matematica: probabilità e statistica (a.a.1993/94, 1995/96, 1996/97)
- Esercitazioni, Istituzioni di Matematica II (a.a.1995/96).

PhD students
- Federica Morbidi, PhD in Science, curriculum Mathematics, SSD SECS/S06, University "G. d'Annunzio" of Chieti-Pescara (XIX cycle , 2003-2006), Thesis: "Emissione ottima dei titoli di Stato: studio di un problema di controllo stocastico";
- Katia Colaneri, PhD in Science, curriculum Mathematics, SSD SECS/S06 - MAT/06, University "G. d'Annunzio" of Chieti-Pescara (XXV cycle, 2010-2013, *Doctor Europaeus*), Thesis: "Characterization of the filter for jump-diffusion observations via the filtering equation. An application to risk-minimizing hedging";
- Matteo Brachetta, PhD in Business, Institutions, Markets (BIM), SSD SECS/S06, Department of Economics, University "G. d'Annunzio" of Chieti-Pescara (XXXII cycle, 2016-2019 *Doctor Europaeus*), Thesis: "Optimal Reinsurance and Investment for Stochastic Factor Risk Models".

Supervisor of numerous Bachelor and Master's degree theses in Business and Economics (CLEC L-33 and CLEC-M, LM-56), Department of Economics, University "G. d'Annunzio" of Chieti-Pescara.

Referent of the Master in Business and Economics (CLECM, LM-56) for the ARPM-Bootcamp (Attilio Meucci) Partnership, from April 2018-present.

Committees
- 2005, Research competition (Valutazione comparativa RU) SSD MAT/06, FSMFN, University "La Sapienza";
- 2005, Research competition (Valutazione comparativa RU) SSD MAT/06, FSMFN, University of Padua;
- 2006 – 2008, conferma in ruolo dei ricercatori, SSD MAT/06;
- 2010, Admission PhD Program in Science, University "G. d'Annunzio", XXV cycle;
- 2010, Examining Committee for the awarding of the PhD in "Metodi Matematici per l'Economia, la Finanza e le Assicurazioni", LUISS, Rome;
- 2010, Examining Committee for the awarding of the PhD in "Matematica Computazionale" (XXII cycle), Dip. di Matematica Pura e Applicata, University of Padua;

- 2011, Examining Committee for the awarding of the PhD in "Metodi matematici per l'economia, l'azienda, la finanza e le assicurazioni", LUISS, Rome, XX and XXI cycle;
- 2012, Admission PhD Program in "Ingegneria e Modellistica fisico-matematica", University of L'Aquila, XXVIII cycle;
- 2013, Examining Committee for the awarding of the PhD Program in "Ingegneria e Modellistica Fisico-Matematica", University of L'Aquila;
- 2013, President of the examining Committee for the awarding of the PhD in Sciences, "G. d'Annunzio", XXIV cycle;
- 2016, President of the examining Committee for the awarding of the PhD in "Matematica, Analisi probabilistica dei fenomeni tellurici", XXVIII cycle, University "La Sapienza";
- 2016, Admission PhD in Business, Institutions, Markets, Department of Economics, University "G. d'Annunzio", XXXII cycle;
- 2017, Senior Assistant Professor **RTDB** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Lecce.
- 2017, Senior Assistant Professor **RTDB** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Bologna.
- 2018, Associate Professor **PA** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Padova.
- 2018, Examining Committee for the awarding of the PhD Program in Mathematics in natural, social and life sciences", Gran Sasso Science Institute (GSSI), L'Aquila.
- 2018, Senior Assistant Professor **RTDB** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Milan.
- 2018, "Habilitation à diriger des recherches" (**HDR**), Laboratoire de Mathématiques et Modélisation d'Evry, Equipe de Probabilités et Mathématiques financières, University of Evry, France.
- 2019, Junior Assistant Professor **RTDA** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University di Chieti-Pescara.
- 2019, Senior Assistant Professor **RTDB** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Pisa.
- 2020, Associate Professor **PA** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Padova.
- 2020, **Tenure Track** 01/A3, "Analisi Matematica, Probabilità e Statistica Matematica"- SSD MAT/06 Probabilità e Statistica Matematica- University of Verona.

RESEARCH INTERESTS

She obtained significant results within **Filtering, Stochastic Control, Optimal Stopping and BSDEs** (Backward Stochastic Differential Equations). More precisely, filtering with pure jump and jump-diffusion observations and partially observed stochastic control problems for pure jump processes. Existence and uniqueness results for the solution to BSDEs driven by general martingales, Galtchouk-Kunita-Watanabe and Föllmer-Schweizer decompositions under partial information and application to (local) risk-minimizing hedging. Optimal stopping problems with applications to branching processes and decision problems. Optimal stochastic control problems arising in accelerated life tests and applications to branching processes. Viscosity solutions and regularity results for the value function of optimal stopping problems and mixed control problems.

Her current research interests focus on **Stochastic Models in Finance and Insurance.** In particular, she investigated pricing and hedging of financial derivatives, including credit ones, counterparty risk and insurance contracts in incomplete markets, and utility maximization and optimal investment problems. She especially gave attention to consider different levels of informations for the investors (full and partial knowledge on the financial and insurance markets) by proposing models that show how access to and gathering of information affect the choices of investors when quantifying the financial and actuarial risks or elaborating hedging strategies. Her research focuses on the following main topics:

- **Risk-minimizing** and **local risk-minimizing hedging** for financial markets under complete and partial information; **risk-minimizing** and **local risk-minimizing hedging for life-insurance markets** under complete and partial information;

- **Indifference pricing** in financial markets with jumps and **unit-linked life insurance contracts** under restricted information and via the **minimal martingale entropy approach;**

- **Utility maximization** problems for jump processes and models arising in high frequency data and **optimal investment-consumption** problems for jump-diffusions markets under restricted information via a stochastic control approach, filtering and backward stochastic differential equations (BSDEs) methods;

- **Hedging of Counterparty risk** of portfolios of credit derivatives, including CDS, for risk intensity-based models with interacting default intensities and contagion effects;

- **Hedging of Reinsurance Counterparty risk**;

- **Optimal reinsurance and investment problems** for stochastic factor models under full and partial information;

- **Public debt management** in a partial observation setting, study of a singular stochastic control problem.

Co-organizer of workshops

- January 1999, "Workshop on nonlinear filtering", University of L'Aquila;
- February 2001, Workshop RAP "Controllo stocastico e teoria dei giochi", University "La Sapienza";
- April 2004, Workshop "Simulation, Filtering and Control with application to queueing theory", University of L'Aquila;
- September 2005, National Workshop "Stochastic Methods in Mathematical Finance", Univ. of Rome "La Sapienza", conference in memory of Prof. Bruno Bassan;
- June 2007, Mini-Workshop Chieti-Pescara Unit PRIN 06, "Metodi Stocastici in Finanza", University of Chieti-Pescara;
- January 2012, "XIII Workshop on Quantitative Finance", University of L'Aquila, member of Scientific Committee and chair;
- July 2013, Organizer and chair of the session: "BSDEs and different levels of Information in Finance", stream Financial Mathematics and OR, EURO XXVI, (http://euro2013.org/) University "La Sapienza";
- June 2017, component of the Scientific Committee of the "First Italian National Meeting on Probability and Mathematical Statistics", University and Polytechnic of Turin, session organizer: "Stochastic processes and applications to Finance and Insurance".
- June 2019, component of the Scientific Committee of the "Second Italian National Meeting on Probability and Mathematical Statistics", University of Salerno, Vietri sul mare.

Invited speaker at Conference

- July 2000 *Controlled partially observed jump processes: dynamics dependent on the observed history,* "World Congress Nonlinear Analysts", University of Catania, Italy;
- March 2004 *Optimal design in nonparametric life testing,* Workshop "Survival and reliability theory and practice", University of Paris 5, France;
- January 2006 *Optimal stopping problems with semicontinuous reward: regularity of the value function and viscosity solutions,* Symposium "Optimal Stopping with Applications", University of Manchester, United Kingdom;
- May 2008 *Optimal investment problems with marked point stock dynamics* , "Sixth Seminar on Stochastic Analysis, Random Fields and Applications", Ascona, Switzerland;
- July 2008 *Utility-based hedging and pricing with a nontraded asset for jump processes,* "Fifth World Congress of Nonlinear Analysts" (WCNA 2008), Orlando, Florida, USA;
- May 2011 *Optimal investment-consumption for partially observed jump-diffusions,* "Seventh Seminar on Stochastic Analysis, Random Fields and Applications", Ascona, Switzerland;
- October 2014 *Risk-Minimization for semimartingale financial market models under partial information via BSDEs and filtering,* "Information in Finance & Insurance: partial information/filtering", Institut Henri Poincare, Paris (http://www.informationinfinanceandinsurance.org/) France;
- January 2016 *The Föllmer -Schweizer decomposition under incomplete information and financial applications,* "Stochastic Models and Related Topics", University of Salerno;
- February 2016 *The Föllmer-Schweizer decomposition under partial information and application to local risk-minimization,* "Stochastic Modelling for Finance", Session: "Partial Information and Filtering", University of Padua and Venice;
- September 2018 *On optimal reinsurance and investment for partially observable reinsurance models; a BSDEs approach,* "BSDEs, Information and McKean-Vlasov Equations", University of Leeds, UK.
- May 2019 *Locally Risk-Minimizing Hedging of Counterparty Risk for Portfolio of Credit Derivatives*, "New Frontiers in Stochastics for Economics and Finance", University of Siena.
- July 2019 *Optimal Reinsurance and Investment Problems under Partial Information* , ICIAM (International Congress on Industrial and Applied Mathematics), Valencia, Spagna, invited at the minisymposia Quantitative Methods in Insurance Market Modelling, organizer Francesca Biagini;
- September 2019 *Optimal reduction of public debt under partial observation of the economic growth* , AMASES 2019, Perugia, invited at the session "Decision under Partial Information" organizer Marco Nicolosi.

Recent invited seminars

- December 2016, *Locally risk-minimizing strategies for defaultable claims under incomplete information,* invited by Prof. Ruediger Frey, Institute for Statistics and Mathematics,Vienna University for Economics and Business WU;
- January 2017, *Hedging of credit derivatives and unit-linked insurance contracts via local risk-minimization*, invited by Prof. Francesco Russo, ENSTA ParisTech, Paris;
- March 2017, *Credit derivatives and unit-linked life insurance contracts: optimal hedging in partially observable market models*, invited by Prof. Tiziano Vargiolu e Giorgia Callegaro, University of Padua;
- May 2017, *Unit-linked life insurance policies: optimal hedging in partially observable market models,* invited by Prof. Arnaud Gloter, Dean of the Département de Mathématiques of the University of Evry, France;
- December 2017, *Indifference pricing of pure endowment life insurance contracts under partial information*, invited by Prof. Claudio Fontana, Laboratoire de Probabilités et Modèles, Paris

Diderot University (ParisVII), France ;

- April 2020, *A BSDES-based approach for the optimal reinsurance problem under partial information*, invited by Prof. Fanio Antonelli, University of L'Aquila, Seminari Aleatori.

Other talks

- September 1992, *Stochastic control problems: a general approach*, **invited seminar**, Politecnico of Torino (Federico Marchetti);
- June 1993, *Controlled Trees,* workshop on "Modelling and Control of Branching Processes", Torino;
- July 1993, *clPControlled Trees,* V CLAPEM, San Paolo, Brasil;
- January 1995, *Marked trees and related counting processes,* "Workshop on Counting Processes and Applications", University of Milan;
- September 1996, *Filtering of a branching process given its split times*, "International Workshop on Computational and Statistical Issues for Stochastic Processes", Cremona;
- September 1998, *Partially Observed Control of a Markov Jump Process with Counting Observations: Equivalence with the Separated Problem*, "Convegno Nazionale di Probabilità: Processi Stocastici ed Applicazioni", University of Padua;
- January 1999, *Nonlinear filtering and existence of optimal controls for partially observed jump processes*, "Workshop on nonlinear filtering", University of L'Aquila;
- February 2001, *Optimal stochastic control arising in semiparametric life testing,* Workshop RAP "Controllo stocastico e teoria dei giochi", University "La Sapienza";
- July 2002, *Conditional law of a Branching process observing a subpopulation,* "ESMTB, V Conference, Mathematical Modelling and Computing in Biology and Medicine", University of Milan;
- September 2003, *Multitype Branching Processes observing particles of a given type,* "Convegno Nazionale Processi Stocastici e Applicazioni a Filtraggio e Controllo", University of Bologna;
- April 2004, *Modelling a multitype branching Brownian motion: filtering of a measure-valued process*, Workshop "Simulation, Filtering and Control with application to queueing theory", University of L'Aquila;
- September 2005, *Optimal stoppping and mixed problems with semicontinuous reward: regularity of the value function and viscosity solutions*, "Stochastic Methods in Mathematical Finance", University of Rome, Conference in memory of Prof. Bruno Bassan;
- May 2006, *Option hedging for high frequency data models,* Convegno SIMAI, VIII Congresso Società Italiana di Matematica Applicata e Industriale, Baia Samuele (Ragusa);
- September 2006, *Pricing for geometric marked point processes under partial information: entropy approach,* Conference PRIN "Metodi Stocastici in Finanza", University of Lecce;
- June 2007, *An HJB approach to exponential utility maximization for jump processes,* "Risk Measurement and Control Summer School", Istituto Svizzero di Roma;
- September 2007, *Utility-based hedging and pricing with a nontraded asset for jump processes,* AMASES 2007, University of Lecce;
- January 2009, *Wealth optimization and dual problems for jump stock dynamic with stochastic factor*, "X Workshop on Quantitative Finance", Polytechnic of Milan;
- May 2009, *Indifference valuation via Backward SDE's driven by Poisson martingales,* invited seminar, Politecnico di Torino, (M. Santacroce);
- September 2009, *Wealth optimization and dual problems for jump stock dynamic with stochastic factor* AMASES 2009, University of Parma;
- January 2010, *Indifference valuation via Backward SDE's driven by Poisson martingales,* "XI Workshop on Quantitative Finance", University of Palerm;
- September 2010, *Portfolio optimization in partially observed jump market models*, AMASES 2010,

University of Macerata;

- October 2010, *Utility maximization for jump stock dynamics under complete and partial information* invited seminar, University LUSPIO of Rome (G. Boffi);
- January 2011, *Utility optimization in a market model with jumps under full and partial information*, invited seminar, University "La Sapienza" (F. Spizzichino);
- January 2011, *Restricted information and utility maximization for jump market models*, "XII Workshop on Quantitative Finance", University of Padua;
- July 2011, *Optimal investment-consumption under restricted information for jump-diffusion processes*, International Conference on Mathematical Finance and Economics (ICMFE 2011) Istanbul Technical University, Turkey;
- April 2013, *Risk minimizing hedging under partial information via BSDEs*, invited seminar Prometeia SpA Bologna (P. Rossi);
- January 2014, *Local risk-minimization under restricted information to asset prices*, "XV Workshop Quantitative Finance", University of Florence;
- June 2015, *Local risk-minimization under restricted information on asset prices*, 1st Symposium on Quantitative Finance and Risk Analysis (QFRA 2015), Santorini, Greece;
- July 2015, *BSDEs under partial information and applications to local risk-minimization for semimartingale financial markets*, 38th Conference on Stochastic Processes and their Applications (SPA 2015), Oxford, UK;
- July 2017, *Unit-linked life insurance policies: optimal hedging in partially observable market models*, IME 2017 - 21st International Congress on Insurance: Mathematics and Economics, Vienna;
- January 2019, *Locally Risk-Minimizing Hedging of Counterparty Risk for Portfolio of Credit Derivatives,* Quantitative Finance Workshop 2019, ETH Zurich.
- January 2020 *Value adjustment and dynamic hedging of reinsurance counterparty risk, Quantitative Finance Workshop 2020, University of Naple Parthenope.*

Editorial activity

- Member of the Editorial Board of Journal Stochastic Analysis and Applications (Print ISSN: 0736-2994 Online ISSN: 1532-9356), https://www.tandfonline.com/loi/lsaa2

- Member of the Editorial Board of AIMS Mathematics (AIMS Press) http:// www.aimspress.com/ journal/ Math.

Referee for International Journal: Finance and Stochastics, Annals of Applied Probability, Annals of Operations Research, Insurance: Mathematics and Economics, Journal of Mathematical Analysis and Applications, Operation Research Letters, Applied Mathematics and Optimization, Journal of Applied Probability, IEEE Transaction and Automatic Control, Scandinavian Actuarial Journal, Stochastics: An International Journal of Probability and Stochastic Processes, Decisions in Economics and Finance, Mathematical Methods of Operations Research, Risks, ASMB Applied Stochastic Models in Business and Industry, IMA Journal of Management Mathematics, Brazilian Journal of Probability and Statistics, International Journal of Theoretical and Applied Finance, Risks.

Project and Research Evaluation: Referee REPRISE (MIUR); Valutazione quadriennale della Ricerca VQR, 2011-2014; University Research Project, University of Milan, 2011; University Research Project, Department of Statistics, University "La Sapienza", 2013; University Research Project, University of Padua, 2014 (prot. CPDA143827); University Research Project, University of Padua, 2017 (prot. BIRD172407).

Referee of PhD Thesis:

- PhD Program in Matematica Pura e Applicata, Department of Mathematics and Applications, University of Milan-Bicocca, Alessandro Calvia, Thesis: "Optimal control of pure jump Markov processes with noise-free partial observations", 2018;
- PhD Program in Mathematics and Modelling, Department of Ingegneria e Scienze dell'Informazione e Matematica, University of L'Aquila, Andrea Cameli, Thesis: "Risk averse market makers: some related models", 2017;
- PhD Program in "Metodi Matematici per l'Economia, l'azienda la finanza e le assicurazioni", LUISS, Vanessa Raso, Thesis: "An optimal Markovian consumption-investment problem in a market with longevity bonds";
- PhD Program in Mathematics and Applications, University of Genova, Daniela Covello, Thesis: "Utility maximization under partial information", 2010.

PUBLICATIONS

International Journals

1. M. Brachetta-C.Ceci: "Optimal Excess-of-Loss Reinsurance for Stochastic Factor Risk Models", *RISKS,* **2019,** 7 (2).

2. M. Brachetta-C.Ceci: "Optimal proportional reinsurance and investment for stochastic factor models", *Insurance: Mathematics and Economics,* **2019,** 87, p.15-33.

3. L. Bo-C.Ceci: "Locally Risk-Minimizing Hedging of Counterparty Risk for Portfolio of Credit Derivatives", *Applied Mathematics and Optimization* **2019.** https://doi.org/10.1007/s00245-018-9549-y **First Online** 01 January 2019.

4. C.Ceci, K.Colaneri, A.Cretarola: "Unit-linked insurance policies: optimal hedging in partially observable market models", *Insurance: Mathematics and Economics* 76, p. 149-163, **2017.**

5. C.Ceci, K.Colaneri, A.Cretarola: "The Follmer-Schweizer decomposition under incomplete information", *Stochastics* 89, p. 1166-1200, **2017** http://arxiv.org/abs/1511.05465**.**

6. C.Ceci, K.Colaneri, A.Cretarola: "Local risk-minimization under restricted information on asset prices" http://arxiv.org/abs/1312.4385 *Electronic Journal of Probability* 20, **2015**, no. 96, 1–3.

7. C.Ceci, K.Colaneri, A.Cretarola: "Hedging of unit-linked life insurance contracts with unobservable mortality hazard rate via local risk-minimization" http://arxiv.org/abs/1406.6902 *Insurance: Mathematics and Economics,* 60, p. 47-60, **2015** (online first doi:10.1016/j.insmatheco.2014.10.013)**.**

8. C.Ceci, A.Cretarola, F.Russo: "BSDES under partial information and financial applications", *Stochastic Processes and their Applications,* 124, p. 2628-2653, **2014,** http://dx.doi.org/10.1016/j.spa.2014.03.003**.**

9. C.Ceci, K.Colaneri, A.Cretarola: "A benchmark approach to risk-minimization under partial information" , *Insurance: Mathematics and Economics*, 55 , p.129–146, **2014.**

10. C.Ceci, K.Colaneri: "The Zakai equation of nonlinear filtering for jump-diffusion observation: existence and uniqueness", *Applied Mathematics and Optimization,* 69 (1), p.47-82, **2014**. *Online first.* http://link. springer.com/article/10.1007/s00245-013-9217-1.

11. C.Ceci, A.Cretarola, F.Russo: "GKW representation theorem under restricted information. An application to risk-minimization" , *Stochastics and Dynamics,* 14 (2), **2014.** *Online first.* http://www.worldscientific.com/doi/abs/10.1142/S0219493713500196 .

12. C.Ceci, K.Colaneri: "Nonlinear filtering for jump diffusion observations", *Advances in Applied Probability* , 44 (3) p. 678-701, **2012.**

13. C. Ceci: "Utility maximization with intermediate consumption under restricted information for jump market models", *International Journal of Theoretical and Applied Finance,* 15 (6) **2012,** p. 24-58.

14. C.Ceci, A.Gerardi: "Utility indifference valuation for jump risky assets", *Decisions in Economics and Finance,* 34 (2) **2011**, p. 85-120*.*

15. C.Ceci, A.Gerardi: "Wealth optimization and dual problems for jump stock dynamics with stochastic factor" *Stochastics,* 82 (5) October **2010**, 403-425.

16. C.Ceci, A. Gerardi: "Utility-based hedging and pricing with a nontraded asset for jump processes", *Nonlinear Analysis* 71 (12) e1953-e1969, **2009.**

17. C.Ceci: "An HJB approach to exponential utility maximization for jump processes", *International Journal of Risk Assessment and Management,* 11 (1/2) 104-121, **2009**.

18. C.Ceci, A. Gerardi: "Pricing for geometric marked point processes under partial information: entropy approach" *International Journal of Theoretical and Applied Finance,* 12 (2) 179-207, **2009**.

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