FEDERICO SEVERINO

Université Laval
FSA, Department of Finance, Insurance and Real Estate
Pavillon Palasis-Prince, local 3610
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CURRENT POSITION

Assistant professor (ongoing promotion to associate professor)
Department of Finance, Insurance and Real Estate, FSA, Université Laval, from Sept. 2019

OTHER AFFILIATIONS

Collaborating researcher of the IID, Institute Intelligence and Data, Université Laval, *Research Thrust 3: Methods of Artificial Intelligence and Data Processing*, from April 2022
Researcher at CIRANO, Interuniversity Centre for Research in Organization Analysis, from Feb. 2022
Researcher at LABIFUL, the Financial Engineering Laboratory of Université Laval, from Nov. 2019

RESEARCH INTERESTS

Asset pricing, financial economics, financial econometrics

EDUCATION

PhD in Economics and Finance, Università Bocconi, Sept. 2012 – May 2018
Thesis: Orthogonal decompositions in asset pricing
Supervisor: Prof. Fulvio Ortu
Master degree, Mathematics, Università degli Studi di Milano, Sept. 2010 – July 2012
Thesis: Stochastic dominance in the representation of preferences
Supervisor: Prof. Marco Frittelli, *Grade:* 110/110 cum laude
Bachelor degree, Applied Mathematics, Università degli Studi di Milano, Sept. 2007 – July 2010
Thesis: Fenchel duality in Hilbert spaces
Supervisor: Prof. Libor Vesely, *Grade:* 110/110 cum laude

RESEARCH EXPERIENCE

Visiting scholar
Department of Finance, Università Bocconi, May 2023 – July 2023
Reference: Prof. Fulvio Ortu
Visiting scholar
Department of Statistics, The Pennsylvania State University, Aug. 2022 – Oct. 2022
Reference: Prof. Francesca Chiaromonte
Post-doc assistant
Department of Economics, IFIN, Università della Svizzera Italiana, Sept. 2017 – Aug. 2019
Reference: Prof. Antonio Mele
Research fellow funded by ERC, IGIER, Università Bocconi, Feb. 2017 – Aug. 2017
Reference: Prof. Simone Cerreia-Vioglio
Visiting PhD student, Becker Friedman Institute, The University of Chicago, Spring 2016
Reference: Prof. Lars Peter Hansen

PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS

1. Cerreia-Vioglio, Ortu, **Severino**, Tebaldi *(2023)* Multivariate Wold decompositions: a Hilbert *A*-module approach. *Decisions in Economics and Finance*
2. **Severino**, Cremona, Dadié *(2022)* COVID-19 effects on the Canadian term structure of interest rates. *Review of Economic Analysis 14(4), 471-502*
3. Cerreia-Vioglio, Ortu, Rotondi, **Severino** *(2022)* On horizon-consistent mean-variance portfolio allocation. *Annals of Operations Research*
4. Ortu, **Severino**, Tamoni, Tebaldi *(2020)* A persistence-based Wold-type decomposition for stationary time series. *Quantitative Economics 11(1), 203-230*
5. Marinacci, **Severino** *(2018)* Weak time-derivatives and no-arbitrage pricing. *Finance and Stochastics 22(4), 1007-1036*
6. **Severino** *(2016)* Isometric operators on Hilbert spaces and Wold decomposition of stationary time series. *Decisions in Economics and Finance 39(2), 203-234*

BOOK CHAPTERS

7. **Severino**, Thierry *(2022)* Robo-advisors: a Big Data challenge. In book: *Big Data in finance: Opportunities and challenges of financial digitalization* by *T. Walker, F. Davis and T. Schwartz. Palgrave-Macmillan*
8. Di Virgilio, Ortu, **Severino**, Tebaldi *(2019)* Optimal asset allocation with heterogeneous persistent shocks and myopic and intertemporal hedging demand. In book: *Behavioral finance: the coming of age* by *I. Venezia, World Scientific*

WORKING PAPERS

9. **Severino**: Long-term risk with stochastic interest rates
10. Madotto, **Severino**: Heterogeneous awareness in financial markets

WORK IN PROGRESS

11. Ortu, Reggiani, **Severino**: Persistence-based portfolio choice along the FOMC cycle
12. Ortu, **Severino**, Tebaldi: Persistence-based Beveridge-Nelson decomposition

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TEACHING

Instructor

- *Responsible artificial intelligence* (forthcoming) Continuing education, Université Laval
- *Financial Economics Theory* (Winter 2023) Bachelor, Université Laval
- *Reading course on continuous-time finance* (Fall 2022) PhD, Université Laval
- *Machine learning in finance* (Winter 2022) Master/PhD, Université Laval
- *Machine learning in business administration* (Winter 2021, Fall 2021, 2022, 2023) Master/PhD, Université Laval
- *Portfolio management* (Winter 2020, 2021) Bachelor, Université Laval
- *Corporate finance* (Winter 2020, 2021, 2022, 2023, Summer 2023, Fall 2020, 2022, 2023) Master, Université Laval

Teaching assistant

- *Financial engineering* (Fall 2018) Master, Università della Svizzera Italiana
- *Fixed income* (Fall 2017, 2018) Master, Università della Svizzera Italiana
- *Asset pricing 1* (Fall 2015, 2016) PhD, Università Bocconi
- *Quantitative finance and derivatives 1* (Fall 2014) Master, Università Bocconi

- *Introduction to probability* (Fall 2014, 2015, 2016) PhD, Università Bocconi
- *Advanced mathematics for economics and social sciences* (Fall 2013, 2014, 2015, 2016) Master, Università Bocconi

Students' supervision

- Co-supervision of a Post-doc assistant (from 2021), Université Laval
- Co-supervision of a PhD student (from 2021), Université Laval
- Supervision of several Master and MBA theses (from 2020), Université Laval
- Shared supervision of several Master theses (2016 - 2017), Università Bocconi

Tutor

Mathematical analysis 2 (Spring 2012) Bachelor, Università degli Studi di Milano

FUNDING

- *Research fund 'Issues, risks and solutions: consumers and investors in the digital age,* AMF Fintech Chair – Finance Montréal, 15000 $, April 2023 – April 2024
- *Faculty research seed grant,* Université Laval, 10000 $, May 2023 – April 2024
- *Promotion of publication in journals rated A and B*, Université Laval, 1000 $, July 2022 – April 2023
- *Research fund on integrated risk management of financial institutions*, AMF, 30000 $, May 2022 – April 2024
- *Research fund,* iA Financial Group Chair in insurance and financial services, 30000 $, May 2022 – April 2024
- *Faculty research spin-off grant,* Université Laval, 10000 $, Feb 2022 – April 2022
- *Faculty research grant for postdoctoral scholars*, Université Laval, 20000 $, Nov 2021 – Oct. 2023
- *Promotion of publication in journals rated A and B*, Université Laval, 1500 $, May 2020 – April 2021
- *Insight Development Grant,* Social Sciences and Humanities Research Council (SSHRC), 60550 $, June 2020 – May 2022
- *Research fund,* iA Financial Group Chair in insurance and financial services, 20000 $, May 2020 – April 2023
- *Research support for new academics,* Fonds de recherche Québec Société et culture (FRQ-SC), 53975 $, May 2020 – April 2024
- *Faculty research starting grant for assistant professors,* Université Laval, 30000 $, Oct. 2019 – Sept. 2023

AWARDS AND FELLOWSHIPS

- *Mitacs Globalink Research Award (academic co-supervisor)*, June 2022
- *Mitacs Accelerate (academic co-supervisor),* June 2022
- *AMASES Award for the best paper by a young researcher at XL Annual Meeting*, Sept. 2016
- *Fondazione Cariplo Mobility grant*, 2016
- *PhD Award*, Università Bocconi, Sept. 2014
- *PhD fellowship*, Università Bocconi, Sept. 2012 – Jan. 2017
- *Registration to National Register of Excellences* for school year 2006/07

INVITED PRESENTATIONS

1. Cerreia-Vioglio, Ortu, Rotondi, Severino (April 2023) On horizon-consistent mean-variance portfolio allocation. ***Young Talents in Actuarial Science and Quantitative Finance**, University of Waterloo*
2. Severino (Sept. 2022) Persistence-based Wold decomposition and FED cycles. *SMAC talk,* ***The Pennsylvania State University***

3. Cerreia-Vioglio, Ortu, Rotondi, Severino (June 2021) On time-consistent multi-horizon portfolio allocation. ***Canadian Operational Research Society (CORS) 2021 Annual Conference***, *University of Waterloo and University of Toronto**
4. Cerreia-Vioglio, Ortu, Rotondi, Severino (May 2021) On time-consistent multi-horizon portfolio allocation. ***Goethe Universität Frankfurt****
5. Severino (May 2019) Weak time-derivatives and pricing equations. ***Workshop on Martingales in Finance and Physics***, *International Centre for Theoretical Physics, Trieste*
6. Severino (Feb. 2019) Long-term risk with stochastic interest rates. ***Barclays Quantitative Portfolio Strategy***, *London*
7. Severino (Feb. 2019) Research topics in asset pricing. ***Brunel University London***
8. Severino (Jan. 2019) Long-term risk with stochastic interest rates. ***Universiteit van Amsterdam***
9. Severino (Jan. 2019) Long-term risk with stochastic interest rates. ***Université du Québec à Montréal***
10. Severino (Jan. 2019) Long-term risk with stochastic interest rates. ***University of Western Ontario***
11. Severino (Jan. 2019) Research topics in asset pricing. ***Durham University***
12. Severino (Dec. 2018) Long-term risk with stochastic interest rates. ***Université Laval***
13. Severino (Dec. 2018) Long-term risk with stochastic interest rates. ***Université de Montréal***
14. Severino (May 2017) Long-term risk with stochastic interest rates. ***Università della Svizzera Italiana***
15. Marinacci, Severino (Oct. 2016) Weak time-derivatives and no arbitrage pricing. ***Università di Milano-Bicocca***

CONTRIBUTED PRESENTATIONS

16. Ortu, Reggiani, Severino (Dec. 2022) Persistence-based portfolio choice along the FOMC cycle. ***16th International Conference on Computational and Financial Econometrics (CFE)***, *King's College London**
17. Cerreia-Vioglio, Ortu, Rotondi, Severino (Dec. 2022) On horizon-consistent mean-variance portfolio allocation. ***35th Australasian Banking & Finance Conference***, *University of New South Wales, Sydney**
18. Cerreia-Vioglio, Ortu, Rotondi, Severino (July 2022) On time-consistent multi-horizon portfolio allocation. ***29th Finance Forum, Annual Meeting of the Spanish Finance Association (AEFIN)***, *Universidade de Santiago de Compostela**
19. Severino, Thierry (June 2022) Robo-advisors: a Big Data challenge. ***1st Conference on International Finance; Sustainable and Climate Finance and Growth (CINSC)***, *Future Finance and Economics Association, Università di Napoli Parthenope*
20. Severino, Cremona, Dadié (June 2022) COVID-19 effects on the Canadian term structure of interest rates. ***49th Annual Meeting of the Statistical Society of Canada****
21. Severino, Thierry (May 2022) Robo-advisors: a Big Data challenge. ***9th International Conference on Risk Analysis (ICRA9)***, *Università di Perugia**
22. Cerreia-Vioglio, Ortu, Rotondi, Severino (April 2022) On time-consistent multi-horizon portfolio allocation. *Session chair.* ***10th International Hybrid Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF)***, *Università di Salerno**
23. Severino, Cremona, Dadié (March 2022) COVID-19 effects on the Canadian term structure of interest rates. *Session chair,* ***The Resilient Society Conference***, *ICEA: International Centre for Economic Analysis**
24. Cerreia-Vioglio, Ortu, Rotondi, Severino (Dec. 2021) On time-consistent multi-horizon portfolio allocation. *Session chair,* ***2021 New Zealand Finance Meeting***, *Auckland Center for Financial Research**
25. Severino, Cremona, Dadié (Sept. 2021) COVID-19 effects on the Canadian term structure of interest rates. ***XLV AMASES Conference***, *Università Mediterranea di Reggio Calabria**
26. Cerreia-Vioglio, Ortu, Rotondi, Severino (Aug. 2021) On time-consistent multi-horizon portfolio allocation. ***Econometric Society European Meeting 2021 (ESEM)***, *Københavns Universitet**
27. Cerreia-Vioglio, Ortu, Severino, Tebaldi (July 2021) Multivariate Wold decompositions. ***6th Canadian Conference in Applied Statistics (Statistics 2021 Canada)***, *Concordia University**
28. Cerreia-Vioglio, Ortu, Severino, Tebaldi (June 2021) Multivariate Wold decompositions. *Session chair,* ***2021 Annual Congress of the Swiss Society of Economics and Statistics (SSES)***, *Universität Zürich**

29. Severino, Cremona, Dadié (May 2021) COVID-19 effects on the Canadian term structure of interest rates. ***28th Annual Meeting of the Global Finance Conference (GCF)**, California State University, Fresno**
30. Cerreia-Vioglio, Ortu, Severino, Tebaldi (Dec. 2020) Multivariate Wold decompositions. ***14th International Conference on Computational and Financial Econometrics (CFE)**, King's College London**
31. Severino (Dec. 2019) Long-term risk with stochastic interest rates. ***European Winter Meeting of the Econometric Society 2019,** Erasmus Universiteit Rotterdam*
32. Severino (June 2019) Long-term risk with stochastic interest rates. ***International Risk Management Conference 2019 (IRMC)**, Università Bocconi*
33. Severino (July 2018) Long-term risk with stochastic interest rates. ***10th World Congress of the Bachelier Finance Society**, Trinity College, Dublin*
34. Severino (June 2018) Long-term risk with stochastic interest rates. ***2018 North American Meeting of the Econometric Society (NASMES)**, University of California, Davis*
35. Ortu, Severino, Tamoni, Tebaldi (June 2018) A persistence-based Wold-type decomposition for stationary time series. ***11th Annual Society for Financial Econometrics Conference (SoFiE)**, Università della Svizzera Italiana*
36. Severino (March 2018) Long-term risk with stochastic interest rates. ***Model Uncertainty and Robust Finance Workshop**, Università degli Studi di Milano*
37. Di Virgilio, Ortu, Severino, Tebaldi (Feb. 2018) Optimal asset allocation with heterogeneous persistence of shocks. *Minisymposium co-chair, **9th Vienna International Conference on Mathematical Modelling (MATHMOD)**, Technische Universität Wien*
38. Di Virgilio, Ortu, Severino, Tebaldi (Dec. 2017) Optimal asset allocation with heterogeneous persistence of shocks. ***11th International Conference on Computational and Financial Econometrics (CFE)**, University of London*
39. Ortu, Severino, Tamoni, Tebaldi (Sept. 2017) A persistence-based Wold-type decomposition for stationary time series. ***XLI AMASES Conference**, Università di Cagliari*
40. Severino (Sept. 2017) Long-term risk with stochastic interest rates. ***EDGE jamboree**, Università Bocconi*
41. Marinacci, Severino (Jan. 2017) Weak time-derivatives and no arbitrage pricing. ***XVIII Quantitative Finance Workshop**, Università di Milano-Bicocca*
42. Marinacci, Severino (Sept. 2016) Weak time-derivatives and no arbitrage pricing. ***XL AMASES Conference**, Università di Catania*
43. Ortu, Severino, Tamoni, Tebaldi (Dec. 2014) A persistence-based Wold-type decomposition for stationary time series. ***8th International Conference on Computational and Financial Econometrics (CFE)**, Università di Pisa*

OTHER PRESENTATIONS

44. Severino (Jan. 2023) Robo-advisors: a Big Data challenge. *Webinaire of the IID, Institute Intelligence and Data, **Université Laval****
45. Cerreia-Vioglio, Ortu, Severino, Tebaldi (Feb. 2022) Multivariate Wold decompositions. *Seminar at the Economics Department, **Université Laval***
46. Madotto, Severino (April 2019) Heterogeneous awareness in financial markets. *Brown Bag Seminar, **Università della Svizzera Italiana***
47. Severino (May 2018) Long-term risk with stochastic interest rates. *Brown Bag Seminar, **Università della Svizzera Italiana***
48. Severino (April 2018) Long-term risk with stochastic interest rates. *Brown Bag Seminar, **Università Bocconi***
49. Ortu, Severino, Tamoni, Tebaldi (Oct. 2016) Persistence-based Wold-type decompositions for economic and financial time series. *Prof. Marc Henry reading group, **The Pennsylvania State University**, University Park*
50. Di Virgilio, Ortu, Severino, Tebaldi (April 2016) Optimal asset allocation with heterogeneous persistence of shocks. *Prof. Lars Peter Hansen reading group, **The University of Chicago***
51. Ortu, Severino, Tamoni, Tebaldi (April 2016) Persistence-based Wold-type decompositions for economic and financial time series. *Prof. Lars Peter Hansen reading group, **The University of Chicago***

OTHER CONFERENCES AND SCHOOLS

- *Fonds Conrad-Leblanc Seminars*, Université Laval, April 2023
- *Confronting Uncertainty in Climate Change workshop*, IMSI, University of Chicago*, April 2022
- *LABIFUL Annual Conference*, Université Laval*, Nov. 2021
- *Paris Finance December Meeting 2020*, EUROFIDAI and ESSEC Business School*, Dec. 2020
- *1st School in Machine Learning of Dynamic Processes and Time Series Analysis*, Scuola Normale Superiore, Pisa*, Nov. 2020
- *LABIFUL Annual Conference*, Université Laval*, Nov. 2020
- *SFS Cavalcade North America 2020*, Indiana University*, May 2020
- *New Frontiers in Stochastics for Economics and Finance Workshop*, Università di Siena, May 2019
- *Fonds Conrad-Leblanc Seminars*, Université Laval, April 2019
- *AFA 2019 Annual Meeting*, Atlanta, Jan. 2019
- *Lugano Banking Day*, ABT, Lugano, March 2018
- *12th End-of-Year Conference of Swiss Economists Abroad*, Università della Svizzera Italiana, Dec. 2017
- *FINECO Trading Courses*, Unicredit, Milano, 2016-2017
- *FMA Applied Finance Conference*, St. John's University, New York, May 2016
- *Graduate Student Conference,* The University of Chicago, May 2016
- *Risk, Uncertainty and Decision Conference*, Università Bocconi, June 2015
- *Games and Decisions 2 Workshop*, Scuola Normale Superiore, Pisa, July 2014
- *8th World Congress of the Bachelier Finance Society*, Bruxelles, June 2014
- *Sixth European Summer School in Financial Mathematics (EMS)*, Universität Wien, Aug. 2013

MEDIA PRESENCE

- News article *À l'ère des robots-conseillers* by Yvon Larose in *Le Soleil*, *La Voix de l'Est*, *ULaval Nouvelles*, Feb. 3, 2023

SERVICE

- Discussant at *35th Australasian Banking & Finance Conference,* University of New South Wales, Sydney*, Dec. 2022
- Discussant at *29th Finance Forum, Annual Meeting of the Spanish Finance Association (AEFIN),* Universidade de Santiago de Compostela*, July 2022
- Reviewer and discussant at *1st Conference on International Finance; Sustainable and Climate Finance and Growth (CINSC),* Future Finance and Economics Association, Università di Napoli Parthenope, June 2022
- Session organizer at *10th International Hybrid Conference on Mathematical and Statistical Methods for Actuarial Sciences and Finance (MAF)*, Università di Salerno*, April 2022
- Discussant at *2021 New Zealand Finance Meeting*, Auckland Center for Financial Research*, Dec. 2021
- Program committee member for *7th International Conference on Time Series and Forecasting (ITISE),* Gran Canaria, July 2021
- Reviewer, session organizer and chair for *6th Canadian Conference in Applied Statistics (Statistics 2021 Canada)*, Concordia University*, July 2021
- Discussant at *28th Annual Meeting of the Global Finance Conference (GCF)*, California State University, Fresno*, May 2021
- Jury member for *Bourstad 2021* competition, CIRANO, May 2021
- PhD exam committee member, Université Laval, Aug. 2020
- Discussant at *3rd Dauphine Finance Ph.D. Workshop*, Université Paris Dauphine*, June 2020
- Jury member for *Bourstad 2020* competition, CIRANO, April 2020
- Discussant at *CONSOB, Bocconi, ESMA Conference*, Università Bocconi, March 2018

- Reviewer for *9th Vienna International Conference on Mathematical Modelling (MATHMOD),* Technische Universität Wien, Feb. 2018
- Discussant at *EDGE jamboree*, Università Bocconi, Sept. 2017
- Referee for *Finance and Stochastics*, *European Journal of Operational Research, International Review of Economics and Finance*, *Journal of Financial Econometrics*, *International Review of Financial Analysis, Proceedings of the Royal Society A, Finance Research Letters, Journal of Economic Theory, Quantitative Finance* from Sept. 2015

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- AMASES (Association for Mathematics Applied to Social and Economic Sciences), from 2016

LANGUAGES

- Italian: mother tongue
- English: fluent (TOEFL score 109/120 in 2015, First Certificate in English B2 in 2006)
- French: fluent (TCF Québec in 2019, DELF B2 in 2007)

PROGRAMMING SKILLS

Good knowledge of Matlab, R, LaTeX, basic knowledge of SAS, STATA, C, Java

Last update: May 2023

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* stays for virtual presentation or attendance.