

Jean-Loup Dupret

Curriculum Vitae

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23/08/1997

Studies

- 2022 – 2023 **Exchange PhD student**, *ETH Zürich, Department of Mathematics, Risk Center.*
Supervisor of the exchange: Patrick Cheridito.
- 2020 – 2024 **PhD in Financial and Insurance Mathematics**, *Catholic University of Louvain, ISBA-LSBA.*
Supervisor : Donatien Hainaut.
- 2018 – 2020 **Master's degree in Actuarial Sciences**, *Catholic University of Louvain, ISBA-LSBA.*
Honorable mention : Summa cum laude (18.25/20).
- 2015 – 2018 **Bachelor's degree in Mathematical Economics**, *Catholic University of Louvain, ESPO.*
Honorable mention : Summa cum laude (17.3/20).
- 2009 – 2015 **Secondary School**, *Christ-Roi High School, Belgium, Math and Science Track.*

Experience

- 2024 – **Postdoctoral Researcher in Machine Learning for Finance and Insurance**, *ETH Zürich, Department of Mathematics, RiskLab.*
- 2021 – 2024 **F.R.S-FNRS Research fellow**, *National Belgian grant.*
- 2020 – 2024 **Teaching assistant in Statistics and Actuarial Sciences**, *UCLouvain, ISBA.*
- 2019 – 2020 **Risk Management trainee**, *AXA Belgium.*
Quantitative Risk Management and Actuarial Function.
- 2017 – 2019 **LSM Investment Club**, *President.*
Strategic allocation of the investment club's financial portfolio (~ 20k€).
- 2017 – 2018 **Tutor for the class of Macroeconomics**, *UCLouvain.*
- 2018 **Property and Casualty Retail: Pricing**, *AXA Belgium, Internship.*
- 2018 **Actuarial and Retirement benefit consulting**, *Nexyan, Internship.*
- 2012 – 2016 **Tennis Instructor**, *Belgian Association of Tennis.*

Publications and awards

IA|BE Prize Winner 2021 - Best Master's thesis in Actuarial Sciences titled "*Rough stochastic volatility modeling*" under the supervision of Dr. Jérôme Barbarin, <http://hdl.handle.net/2078.1/thesis:26110>.

Dupret, J. L., Barbarin, J., & Hainaut, D. (2023). Impact of rough stochastic volatility models on long-term life insurance pricing. *European Actuarial Journal*, 13(1), 235-275.

Dupret, J. L., & Hainaut, D. (2021). Portfolio insurance under rough volatility and Volterra processes. *International Journal of Theoretical and Applied Finance*, 24(06n07), 2150036.

Dupret, J. L., & Hainaut, D. (2023). A subdiffusive stochastic volatility jump model. *Quantitative Finance*, 23(6), 979-1002.

Dupret, J. L., & Hainaut, D. (2024) A Fractional Hawkes Process for Illiquidity Modeling. *Mathematics and Financial Economics*, 19(1), 1-39.

Dupret, J. L., & Hainaut, D. (2025). Optimal liquidation under indirect price impact with propagator. *Forthcoming in Quantitative Finance*.

Preprints

Hainaut, D. & Dupret, J. L. (2025). Optimal control by policy improvements and constrained Gaussian process regressions. *Submitted in Annals of Operations Research*.

Cheridito, P., Dupret, J. L., Hainaut, D. (2025). Deep learning for continuous-time stochastic control with jumps. *Submitted for ICML 2025*.

International Conferences (speaker)

- 2023 Stochastics in Mathematical Finance and Physics 2023, *Hammamet (Tunisia)*.
- 2023 11th General AMaMeF conference, *Bielefeld (Germany)*.
- 2022 4th International Conference on Computational Finance, *Wuppertal (Germany)*.
- 2021 26th International Congress on Insurance: Mathematics and Economics, *Illinois (USA)*.
- 2021 10th International Conference of the Financial Engineering and Banking Society, *Lille (France)*.

Skills and interests

Written and spoken knowledge of English (IELTS 7.5) and Dutch.

Proficient in R, Python, SAS, SPSS, Excel, Mathematica.

Tennis (national level, 13 years of practice), cycling, running (marathoner).