

# VALENTIN TISSOT-DAGUETTE

PhD Candidate at Princeton University and Bloomberg PhD Fellow  
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## EDUCATION

2020 - Present	<b>Princeton University</b> , Princeton, NJ, USA <i>PhD in Operations Research and Financial Engineering</i> Adviser: Prof. H. Mete Soner. Industry Mentor: Dr. Bruno Dupire Research Topics: Optimal stopping and free boundary problems, Deep Stochastic Optimization, Functional Expansions, Path-dependent contingent claims
2018 - 2020	<b>EPFL</b> , Lausanne, Switzerland <i>MSc in Financial Engineering</i> . GPA: 5.84/6.00 Coursework: Computational finance, Financial derivatives, Numerical integration of SDEs
2016 - 2017	<b>ETH Zurich</b> , Zurich, Switzerland <i>BSc in Mathematics</i> . Exchange year. GPA: 5.80/6.00 Coursework: Probability theory, Stochastic calculus, Randomized algorithms
2014 - 2016 2008 - 2014	<b>EPFL</b> , Lausanne, Switzerland <i>BSc in Mathematics</i> . First and second year <i>Euler Course of Mathematics</i> . Selective program of mathematics for high-potential students

## EXPERIENCE

Summer 2021, 2022 Dec 2021 - May 2022	<b>Bloomberg LP</b> , New York City, NY, USA <i>Quantitative Research Intern</i> <i>Quantitative Research Consultant</i> Mentor: Dr. Bruno Dupire, Head of Quantitative Research Topics: Functional Taylor Series, Path signature, Karhunen-Loève expansion
Feb - Aug 2020	<b>Lombard Odier Investment Managers</b> , London, UK <i>Quantitative Research Intern (Master's thesis in industry)</i> Mentors: Prof. Damir Filipović and Dr. Serge Tabachnik Topics: Implied volatility indices, Variance swap, Volatility targeting
May - Nov 2019	<b>Swiss Finance Institute @ EPFL</b> , Lausanne, Switzerland <i>Research Assistant of Dr. Kathrin Glau</i> Topics: American option pricing, Reproducing kernel Hilbert spaces, Chebyshev interpolation

## AWARDS

2022 - 2023	<b>Bloomberg Quantitative Finance PhD Fellowship</b> One of three recipients. Grant of \$100,410 (tuition, stipend, conference funding)
Oct 2020	<b>2020 Swiss Life Award for Academic Excellence</b> Award for the highest GPA in the Master in Financial Engineering program of 2018-2020, EPFL
Dec 2015	<b>First Prize on the 2015 Combinatorial Problem Solving Contest</b> Awarded by Prof. János Pach, EPFL

## PUBLICATIONS & PREPRINTS

2022	V. T.-D. <b>Short Communication: Projection of Functionals and Fast Pricing of Exotic Options</b> . <i>SIAM Journal on Financial Mathematics</i> , 13(2):SC74–SC86. <a href="#">Link</a> A.M. Reppen, H.M. Soner, and V. T.-D. <b>Neural Optimal Stopping Boundary</b> . <a href="#">arXiv:2205.04595</a> . In review A.M. Reppen, H.M. Soner, and V. T.-D. <b>Deep Stochastic Optimization in Finance</b> . <a href="#">arXiv:2205.04604</a> . In review
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## TALKS

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Aug 2022	<b>Research in Options: RiO 2022</b> , FGV, Rio de Janeiro <i>Projection of Functionals and Fast Pricing of Exotic Options</i> (lightning talk) <i>Functional Expansions and Claim Decomposition</i> (plenary talk)
Apr 2022	<b>ORFE Graduate Students Fin Math Seminar</b> , Princeton University <i>Disentangling the Chaos: the Functional Taylor Expansion</i>
Dec 2021	<b>ORFE Graduate Students Fin Math Seminar</b> , Princeton University <i>High-dimensional Free Boundary Problems</i>
Nov 2021	<b>FMI Tech Econophysics Webinar</b> (virtual) <i>Path Approximation using Signatures and Hilbert Projections</i> <b>ORFE Graduate Students Fin Math Seminar</b> , Princeton University <i>Optimal Stopping in Continuous Time</i>
Sept 2021	<b>Bloomberg Quant (BBQ) Seminar</b> (virtual) <i>Demystifying the Path Signature</i> (lightning talk)

## TEACHING

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	<b>Princeton University</b> , Princeton, NJ, USA <i>Assistant in Instruction</i>
Fall 2022	ORF 535/FIN 535: Financial Risk and Wealth Management
Spring 2022	ORF 335/ECO 364: Introduction to Financial Mathematics
Fall 2021	ORF 418: Optimal Learning
	<b>EPFL</b> , Lausanne, Switzerland <i>Assistant in Instruction</i>
Fall 2019	FIN 472: Computational Finance
2012 - 2016	Euler Course: Calculus, Geometry, Algebra

## ACTIVITIES

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2021 - Present	<b>Referee for Academic Journals and Books:</b> SIAM Journal on Financial Mathematics, Chapman and Hall/CRC
Fall 2021 - Present	<b>Organizer:</b> ORFE Graduate Students Fin Math Seminar, Princeton University

## SKILLS AND INTERESTS

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Language	French (native), English (proficient), German (intermediate)
Programming	Python, Julia, Matlab, C++
Interests	Percussions, Music composition, Vegetarian cuisine