Christoph Frei

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| SUMMARY | Strongly committed to advancing and integrating academic research and industrial practice in risk management and quantitative finance |

RESEARCH

Areas: risk management, algorithmic trading, quantitative finance, banking
Methods: time series analysis, machine learning, stochastic analysis and control

EDUCATION

Ph.D. studies in mathematical finance, ETH Zürich — May 2006 – Oct. 2009
- *Doctor of Sciences*, Oct. 2009
- Advisor: Prof. Martin Schweizer

Diploma studies in mathematics, ETH Zürich — Oct. 2001 – Apr. 2006
- *Diploma in mathematics* (with distinction), Apr. 2006
- Extra diploma in insurance mathematics, Apr. 2006

EMPLOYMENT

University of Alberta, Edmonton, Canada

Department Chair, Mathematics and Statistics	since July 2023
Interim Department Chair, Mathematics and Statistics	July 2022 – June 2023
Professor (with tenure), Mathematical Finance	since July 2021
Associate Chair Graduate, Mathematics and Statistics	July 2021 – June 2022
McCalla Professor (awarded for significant contributions to the integration of teaching, research, and leadership)	Sept. 2020 – Aug. 2022
Associate Professor (with tenure), Mathematical Finance	July 2014 – June 2021
Assistant Professor (tenure track), Mathematical Finance	July 2010 – June 2014

ETH Zürich, Switzerland — Jan. 2013 – June 2013
Visiting Professor, Department of Mathematics

École Polytechnique, Palaiseau, France — Oct. 2009 – June 2010
Postdoctoral Researcher, Mathematical Finance

Credit Suisse, Zürich, Switzerland — May 2001 – Sept. 2009
Financial Controller (20 %), External Reporting

SELECTED PUBLICATIONS

A complete list can be found at www.math.ualberta.ca/~cfrei/research.html.

[1] Baldauf, M., Frei, C., and Mollner, J. (2024): Block Trade Contracting. *Journal of Financial Economics* **160**, 103901, 29 pages

[2] Frei, C. (2023): Open Banking: Opportunities and Risks. In: Walker, T., Nikbakht, E., and Kooli, M. (eds.), The Fintech Disruption: How Financial Innovation Is Transforming the Banking Industry, Palgrave Macmillan, 167–189

[3] Baldauf, M., Frei, C., and Mollner, J. (2022): Principal Trading Arrangements: When Are Common Contracts Optimal? *Best Paper in Asset Pricing (SFS Cavalcade North America, 2019)*, *Management Science* **68**, 3112–3128

[4] Frei, C., Capponi, A., and Brunetti, C. (2022): Counterparty Risk in Over-the-Counter Markets. *Journal of Financial and Quantitative Analysis* **57**, 1058–1082

[5] Frei, C. and Mitra, J. (2021): Optimal Closing Benchmarks. *Finance Research Letters* **40**, 101674, 8 pages

[6] Ewanchuk, L. and Frei, C. (2019): Recent Regulation in Credit Risk Management: a Statistical Framework. *Risks* **7**, 40, 19 pages

INDUSTRY PROJECTS	**Mitacs Accelerate Fellowships for collaboration with** Jan. 2019 – June 2022 **ATB Financial**, Calgary, Canada Building a framework to use banking data for learning, warning, and prevention
	Mitacs, NSERC Alliance and Engage projects Sept. 2018 – Oct. 2021 **with Canadian Western Bank**, Edmonton, Canada *Academic Partner* of a project to analyze implications of new regulation in credit risk
	Mitacs Accelerate with Vario Ventures, Calgary, Canada Jan. 2020 – Apr. 2020 Machine learning in business valuation using merger and acquisition data
	UBS, Zürich, Switzerland Developing a risk allocation and attribution framework Dec. 2018 – Mar. 2019 Assessing and improving credit risk models July 2016 – Mar. 2017
	Board of Governors of the Federal Reserve Jan., Apr. & May 2017 **System**, Washington DC, USA *Visiting Researcher* for a project on how counterparty risk affects CDS markets
ACTIVITIES IN ORGANIZATIONS	**PRMIA (Professional Risk Managers' International Association)** *Regional Co-Director*, Edmonton Chapter since Jan. 2020 *Member of the Steering Committee*, Edmonton Chapter Apr. 2015 – Dec. 2019
	NSERC (Natural Sciences and Engineering Research Council of Canada), Scholarships and Fellowships for Mathematical Sciences *Chair of the Selection Committee* July 2016 – June 2017 *Member of the Selection Committee* July 2014 – June 2016
TEACHING	• MATH 154 and 156: Calculus for Business and Economics I + II (Fall 2020: 161 students and teaching evaluation 4.8/5.0; Winter 2020: 137 students and teaching evaluation 4.8/5.0; Fall 2019: 149 students and teaching evaluation 4.5/5.0) • MATH 408/508: Computational Finance (Fall 2021: 12 students and teaching evaluation 4.9/5.0; Winter 2020: 22 students and teaching evaluation 4.9/5.0) • STAT 471: Probability Theory (Fall 2017: 46 students and teaching evaluation 5.0/5.0; Fall 2015: 33 students and teaching evaluation 4.7/5.0) • STAT 479: Time Series Analysis (Winter 2018: 22 students and teaching evaluation 4.9/5.0; Winter 2014: 19 students and teaching evaluation 4.9/5.0)
STUDENT TRAINING	• Over the last five years, I supervised two postdoctoral researchers, three Ph.D. students, eleven master's students, and six undergraduate students, who started successful careers in academia and the finance and risk management industry. • Further information about my current team and former students can be found at www.math.ualberta.ca/∼cfrei/team.html. • As the Associate Chair Graduate of the Department of Mathematical and Statistical Sciences, I oversaw academically and administratively the Department's graduate programs. • As the Regional Co-Director of PRMIA Edmonton, I establish and strengthen links for students to the finance and risk management industry.
RESEARCH GRANTS	• NSERC Discovery Grant *(Principal Investigator)* Apr. 2019 – Mar. 2026 • SSHRC Insight Grant *(Co-Principal Investigator)* Apr. 2022 – Mar. 2028