



Western
Science



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Applications are invited for PhD study at Western University on the topic

Detecting Systematic Anomalies: Theory, Experiments, and Real Data Analyses

under the supervision of [Ricardas Zitikis](#) (Western) and co-supervision of [Edward Furman](#) (York U)

PhD starting date: September 1, 2024

PhD Program: Statistics – Financial Modelling

Applications from anywhere in the world will be considered

- The PhD study will be sponsored by the NSERC Alliance – Mitacs Accelerate grant under the title “New Order of Risk Management: Theory and Applications in the Era of Systemic Risk” in partnership with Aviva Canada, Canada Life, CANNEX Financial Exchanges, Sun Life Financial, and Wawanesa Insurance.

There will be plenty of opportunities to test theory in practice!

- Applicants are expected to have considerable training in subjects such as Calculus/Analysis, Mathematical Statistics, and Probability, and should also have great interest in methods of Machine Learning, Optimization, and Programming.

Aspiring Data Scientists are most welcome to apply!

A brief description of the PhD topic: Roughly speaking, systematic anomalies are those aberrations that affect (biological, engineering, financial, etc.) systems on the regular basis. Individually, they may not be as damaging as extremes or outliers, but in the long run they often result in highly damaging, and even fatal, system failures. Moreover, they are difficult to detect in the short run, and therefore may require a very long series of data. We shall develop methods and techniques of systematic anomaly detection that facilitate answers to questions such as how, why, and when such anomalies can be detected.

If interested, email to rzitikis@uwo.ca for further details