



Department of  
Mathematical Sciences

# Colloquium

**Dr. Ricardas Zitikis**

**Professor of Statistical and Actuarial Sciences**

**Western University**

**Friday,  
Nov 22, 2019  
EMS Building  
Room E495  
2:00 pm**



**Dr. Ricardas  
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## **An Axiomatic Foundation for the Expected Shortfall**

The Value-at-Risk (VaR) and the Expected Shortfall (ES) are the most popular risk measures used in banking and insurance regulation. According to the recent Basel Accords, ES has replaced VaR as the standard risk measure for market risk in the banking sector. VaR has been characterized in the literature with several different sets of economic axioms, whereas ES, although being a most popular and coherent risk measure, does not yet have an axiomatic foundation. We shall put forward four intuitively attractive economic axioms that uniquely characterize ES. Key to the characterization are novel notions such as  $p$ -tail events and  $p$ -concentration, and we shall discuss them in detail. (Joint work with Ruodu Wang, University of Waterloo.)

*Light refreshments will be served at 1:30pm in E424A.*



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