THOMAS S. SALISBURY, York University and the Fields Institute
Mathematical Finance

This three-hour minicourse will provide an introduction to the mathematics used in modern finance, and to the type of applications it finds in the world of quantitative analysts (also known as quants). We will touch on such mathematical techniques as the Ito calculus, stochastic control, and BSDE's. These open up applications in finance, to topics such as derivative securities, hedging, risk neutrality, complete and incomplete markets, credit risk, volatility modelling, portfolio optimization, and optimal execution.