Statistics and Actuarial Science
Statistiek en Aktuariële Wetenskap

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S E M I N A R

Dr Gcina Maziya
(Stellenbosch University)

COS Method for evaluating Barrier options under the Heston stochastic volatility model

Date:
Friday, 11 April 2025

Time:
13h10-14h10 SAST

Venues:
- Room 2048, 2nd floor
  Van der Sterr Building,
  cnr Victoria & Bosman Streets
  Stellenbosch
- Online

WHO SHOULD ATTEND?
All are welcome.

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ABSTRACT:
The Heston stochastic volatility model is a more realistic model for the evolution of a stock price, S_t, compared to the Geometric Brownian motion of the Black Scholes model. Our interest is in evaluating the value of discretely monitored Barrier options under the Heston model. There are several competing numerical methods for evaluating the value of a call option. In this presentation I'm going to discuss the COS method for evaluating option prices.

Dr Gcina Maziya is a postdoctoral fellow in Quantitative Finance at Stellenbosch University and part-time lecturer. He earned his PhD in Applied Mathematics & Mathematical Physics at Imperial College London.

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