

From Black-Scholes Equation to James Simmons' Renaissance Technologies, Entropy and External Driving Energy

RSVP



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LOCATION
C 107



SPEAKER

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Fischer Black, Myron Scholes, and Robert Merton developed the Black-Scholes model for option pricing, a groundbreaking contribution that led to Myron Scholes and Robert Merton receiving the Nobel Prize in Economics in 1997. The model assumes that stock prices follow a log-normal Markov process, with the risk-free interest rate serving as the drift term.

The work of James Simons and his firm, Renaissance Technologies, has shown that certain minority market behaviors are statistically predictable to some extent. In this talk, I will explore the progression from the binomial model to the Black-Scholes equation, and discuss the significance of its solution.

Additionally, I will introduce a few low-entropy market groups that deviate from the standard Markov process, and explain how these deviations can be leveraged in stock trading and portfolio management. I will present a couple of real time simulations.