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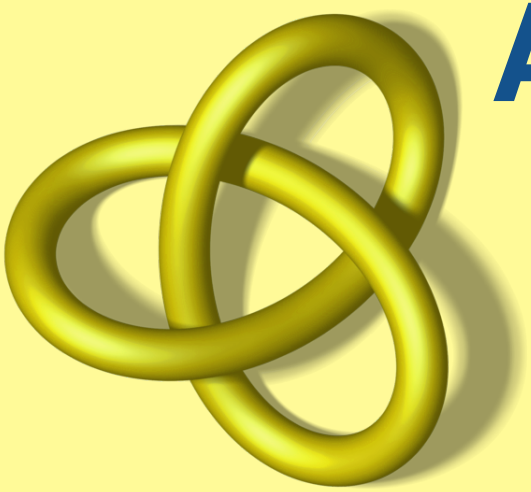
An Undergraduate Lecture Series



Announcing

A Seminar Presentation on Thursday November 10, 2016 at 3:00 pm in North Hall 102

at The University of New Haven

Marc Mehlman

Department of Mathematics and Physics
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Title: The Logic behind Black-Scholes Formula and Long Term Capital Management

Abstract:

Derivatives in the financial world have nothing to do with Calculus derivatives. They are also often referred to as options. They are a way of insuring bets concerning the future values of securities and assets. The idea of betting and then betting against the first bet is, at first glance, silly. However options give those who wish to invest in the stock market a means to control volatility, to limit risk while still making a profit. A farmer is already betting on good weather during his growing season by planting his crop. If he places a side bet where he is paid something if the weather is bad, he can limit the risk of crop damage. The farmer gives up some of the upside (good weather profits) so that he can limit the downside (bad weather losses).

Others buy derivatives to increase volatility. Instead of buying an expensive stock as a way to place a bet on whether the stock goes up, why not just place the bet without buying the stock and buying a derivative instead? For one, a set amount money can buy much more action (market leverage). Second, it is now possible to make money when a stock declines by placing a proper bet.

The question remains, how is the fair market price of stock derivatives (called options) calculated? This leads us to the Black–Scholes formula and its quite interesting history.

Further Information

For further information, please contact Angie Domschine at the Department of Mathematics and Physics, Office: Maxcy 204, 203-932-7250, ADomschine@newhaven.edu.