

NCSU Society for Undergraduate Mathematics

SUM Series

Thursday, September 18, 2008

3:00–3:50 p.m.

Harrelson 330

Mathematics and pizza!

Financial risk in the “real” world

Albert Hopping (Progress Energy)

Value at Risk (VaR) is a benchmark for financial risk, but what does it mean and how do we find it? We'll discuss commodities and their financial risk with a focus on energy markets. We'll also look at the practical issues behind calculating VaR for multiple commodities. Depending on audience questions, topics discussed may include forward markets, futures markets, options, implied volatility, Black-Scholes model, Delta, the energy industry in general, GBM, correlations, credit risk, margin accounts, MATLAB, Excel, and statistical distributions.