

WSU Financial Mathematics and Risk Management Seminar

Date: Tuesday, February 3rd, 2015

Speaker: Mohammed K A Kaabar

Room: 5W in Neill Hall

Time: 4:10 PM – 5:00 PM

Title: Linear Programming Models with Applications in Financial Mathematics and Risk Management.

Abstract:

In this talk, we start with an example of linear programming (LP) models about the asset/liability cash flow matching known as the short term financing. We then discuss another linear programming (LP) model: asset pricing and arbitrage including the two types of arbitrage opportunity and the condition of no-arbitrage opportunity. In addition, we talk about the relation between no-arbitrage opportunity and martingale measure. At the end, we define risk neutrality and risk-neutral probability measure.

List of References

- [1] G. Cornuejols and R. Tütüncü: Optimization Methods in Finance. Cambridge University Press, 2007
- [2] Y. KWOK: No-Arbitrage Pricing Approach and Fundamental Theorem of Asset Pricing. Department of Mathematics (Research Seminars) at Hong Kong University of Science and Technology
- [3] S. Boyd and L. Vandenberghe. Convex Optimization. Cambridge University Press, 2004