SEMSEMEINAR ANNOUNCEMENT

APPLICATIONS OF SET OPTIMIZATION TO FINANCE

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Abstract: Set optimization is a generalization of vector optimization which can be formulated in a complete lattice. In financial risk measurement, set optimization problems arise when capital requirements can be made in a basket of currencies or assets. In this presentation, we will cover the definition of multivariate risk measures as well as primal and dual representations. Additionally, we will discuss, in a dynamic framework, the relation of multivariate risk measures through time and an algorithm for computing these risk measures. Further applications to systemic risk measurement will also be given.

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Green Hall, room 0120

Host: Dr. Arye Nehorai

Short Bio: Zachary Feinstein is a PhD candidate in Operations Research and Financial Engineering at Princeton University. He was valedictorian of the 2009 class in the School of Engineering and Applied Science at Washington University in St. Louis, graduating Summa Cum Laude with a BS in Systems Engineering. His research concentrates in the area of financial risk measurement with incomplete preferences, an application of set optimization.