

Speaker: Yupeng Chen (IEOR)

Title: A new robust cycle-based inventory control policy (joint with Garud Iyengar)

Abstract:

In this paper, we propose a new robust cycle-based control policy for single installation inventory models with non-stationary uncertain demand. The policy is simple, flexible, easily implementable and preliminary numerical experiments suggest that the policy has very promising empirical performance. The policy can be used both when the excess demand is backlogged as well as when it is lost; with non-zero fixed ordering cost, and also when lead time is non-zero. The policy decisions are computed by solving a collection of linear programs *even* when there is a positive fixed ordering cost. The policy extends in a very simple manner to the joint pricing and inventory control problem.