



MATH CLUB PRESENTS:

Dr. Umit Akinc
Calloway School of Business and Accountancy
Wake Forest University

Thursday, April 17, 2008
4:00pm—Manchester Hall, Rm 016

“ASSET DISPOSAL PROBLEM”

An asset, nominally priced at some full price, is to be sold. There is a known obsolescence date when it can be disposed of but only at a lower salvage value. Probability distribution to sell the asset in t periods is known whose parameter(s) depend(s) on the sale price. If the asset does not sell in the current period, it is carried forward to the next period at a known holding cost and offered at a different (possibly lower) price. There are a variety of practical situations fitting this description. For instance, automobile dealers are anxious to dispose of last year's models before the new models arrive on their lots; clothing retailers have to discount their inventory towards the end of the season. The problem is to determine an optimal price at every period until the asset is sold before, or salvaged at expiration date so as to maximize the expected net proceeds. A dynamic programming recursion coupled with basic calculus is used to find an optimal price trajectory. Certain practical properties of the optimal prices and of proceeds are also investigated.

Refreshments in the Lounge
Manchester Hall, Rm 336 at 3:30pm