

Date: Friday, September 16 2005

Time: 10:30 a.m. –12:00 p.m.

Place: 102 Business Building

PRESENTATION ANNOUNCEMENT

"Forecasting with Evolving Information"

To be presented by

**Jonathan R.M. Hosking
IBM Watson Labs**

A common problem in business forecasting is to estimate the total of a business measurement (e.g., revenues, sales volume, or expense) over some time period, based on information available at some point within the time period. For example, forecasts of the current year's total revenue may be made every month, or forecasts of quarterly revenue may be required every week. The available information may consist of sales made in the time period to date, orders received, and estimates of future sales opportunities. For example, in the "Signature Selling Method" used by IBM, sales opportunities move through a seven-step process corresponding to the customer's buying decisions. We describe some models and forecasting procedures that can be used. Illustrative applications, using data from IBM, involve forecasting quarterly revenues or sales volumes based on weekly data. The basic approach involves simple regression models relating final revenue to the volumes in the opportunity pipeline each week, factorial components to allow for variations across geographic area and industry sector, and smoothing of the parameters to avoid implausibly large jumps in forecast values from week to week.

J. R. M. Hosking gained a Ph.D. from Southampton University and has worked at the Institute of Hydrology in England and, since 1986, at the IBM Research Division. He is the author of one book and over 50 research papers. He has developed methods that use fractional differencing as a model for long-memory time series and L-moments as a method of analysis for long-tailed distributions. His research interests include business forecasting, frequency estimation for extreme environmental events, and financial risk management. Models and forecasts based on evolving information

J. R. M. Hosking

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