

DEPARTMENT OF STATISTICS
COLLOQUIUM SERIES

Texas A&M University

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COMPARING ACCURACY OF SPATIAL FORECASTS

ABSTRACT:

Testing the null hypothesis of no difference in the accuracy of two competing forecasts has been studied extensively in time series. Diebold and Mariano (1995) proposed a test in this setting that has been extended and widely applied. It allows the researcher to specify a large variety of loss functions, and the forecast errors can be non-Gaussian, nonzero mean, serially correlated, and contemporaneously correlated. We propose a similar but more general test of forecast accuracy for spatial data. The forecast errors are no longer potentially serially correlated but spatially correlated. Simulations illustrate the properties of this test, and an example based on daily average wind speeds in Oklahoma is used to illustrate its use. This test is also compared to a similar type of methodology proposed by Shen, Huang, and Cressie (2002) that is designed to test for a spatial signal at every location in a spatial dataset.

DATE: Tuesday, June 30, 2009

TIME: 11:10 a.m. – 12:00 p.m.

PLACE: Room 411, Blocker