Université Concordia University

FACULTY OF ARTS AND SCIENCE

Department of Mathematics and Statistics

Dwivedi Memorial Lecture

"A Non-linear Forecast Combination Method with Applications"

A talk by

Professor Kajal Lahiri
Department of Economics
University of Albany-SUNY, N.Y.

Date: **Monday, April 28, 2014**

Time: **3:30 p.m. – 4:30 p.m.**

Location: **1400 de Maisonneuve Blvd. West, Montreal**
J.W. McConnell Building/Library Bldg.
Room S-LB 646

The talk will be followed by a reception in room S-LB 921.04

RSVP: Geraldine Ford (g.ford@concordia.ca) by April 18, 2014

Abstract: Dr. Lahiri develops a non-linear forecast combination procedure using Bayesian approach for turning point predictions based on t-copulas that incorporates the dynamic interactions between individual predictors. This approach is optimal in the sense that the resulting combined forecast produces the highest discriminatory power as measured by the Receiver Operating Characteristic (ROC) curve. Under certain conditions, this rule is shown to be equivalent to the linear combination scheme suggested by Bates and Granger (*Operation Research Quarterly*, 1969). Following Muller (*Econometrica*, 2013), he develops his approach based on robust marginal distributions. Using his framework, he revisits a puzzle initially established by Rudebusch and Williams (*JBES*, 2009). He optimally combines yield spread and SPF probability forecasts for recessions, and examine the sources of forecasting gains at different horizons using a counterfactual experimental set up. He decomposes the overall improvement of the combined forecast relative to each predictor into gains from i) recalibration, ii) using the differentials in copulas between regimes, and iii) using the differentials in the conditional densities of the alternative predictors.

Dr. Kajal Lahiri is a distinguished professor of economics at the University at Albany–SUNY, a fellow of CESifo Research Network, and an honorary fellow of the International Institute of Forecasters. He received his doctorate in economics from the University of Rochester. Author of numerous books and articles, Dr. Lahiri created the Transportation Services Index, a measure of output in the transportation sector that is reported monthly by the U.S. Department of Transportation. He is on the editorial boards of the *Journal of Econometrics*, the *International Journal of Forecasting, Empirical Economics*, and the *Journal of Business Cycle Measurement and Analysis*. His current research deals with economic forecasting, and also with minority health—the latter research is being funded by the National Institutes of Health.