

**Speaker:**

Dr. Kajal Lahiri,

Department of Economics, University at Albany: SUNY, Albany, N.Y.

**Date and Time:**

December 12<sup>th</sup>, 2025 (Friday), 3:30 PM

**Venue:**

Room 307, 3<sup>rd</sup> floor, Conference Room, A91 Eco Hub Building,

Department of Economics, IIT Bombay

**Title:****Forecast Evaluation with Binary Outcomes****Abstract:**

We have studied the relationship between Receiver Operating Characteristics (ROC) and Precision-Recall Curve (PRC) both analytically and using a real-life empirical example of yield spread as a predictor of recessions. We show that false alarm rate in ROC and inverted precision in PRC are analogous concepts, and their difference is determined by the interaction of sample imbalance and forecast bias. We found that in cases of severe class imbalance, the forecasts need to be adequately biased to mitigate the effect of sample imbalance.

**About the speaker:**

Dr. Kajal Lahiri's early education was in Kolkata, India and has a PhD from University of Rochester, USA.

Dr. Lahiri has been the Distinguished Professor of Economics and Health Policy Management since 2007. This is the highest rank that SUNY Board of Trustees bestows on a faculty.

He is an Honorary Fellow of learned Economics Societies including the International Institute of Forecasters, International Association of Applied Econometrics, and Journal of Econometrics, and a Distinguished Author of Journal of Applied Econometrics.

He published numerous books and articles including the well-known graduate textbook *Introduction to Econometrics* (with his advisor G.S Maddala) which is in its fourth edition. Dr. Lahiri has supervised an amazing sixty-four doctoral dissertations so far. Dr. Lahiri created the *Transportation Services Index*, a measure of output in the transportation sector that has been reported monthly by the US Department of Transportation since 2000.

In connection with his work, Professor Lahiri with his wife Nandini have lived in many countries including India, China, Australia, Italy, Germany, UAE and in Washington DC, Colorado, and Florida in the US. He has been a recipient of grants from NSF, NIH, DOT, SSA, and World Bank, and has been a consultant to state, federal and international agencies, and private companies.