

THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

COLLOQUIUM

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A Dynamic Linear Model to Forecast Number of Hotel Rooms Occupied in Puerto Rico Using Google Trends Search Query Data

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ABSTRACT

The aim of this work is to develop a practical model to forecast tourist activity in Puerto Rico. We consider the use of Search Query data made available by Google Trends and develop a Dynamic Linear Model (DLM) that accounts for Search Query volume measurement error to draw inference on the association between number of rooms occupied and Search Query Volume. Then we compare the forecasting performance of our DLM with a semiparametric model, and the more traditional options SARIMA and Holt Winter models. Strength and weaknesses of the DLM are discussed.

Monzón Building, Room 201, 10:45 AM
Refreshments will be served
15 minutes before the colloquium, M213

