Graduate Seminar

Department of Economics and Finance

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MA Candidate

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Title: Cryptocurrency Price Flows with Artificial Neural Networks

This study investigates the predictability of hourly Bitcoin returns using other cryptocurrencies of both significant and minor market capitalization. Initially the causality each of these cryptocurrencies have on one other is determined using a series of linear and non-linear Granger tests. The results produced by these tests are used to determine the hourly time lag to be implemented in the models. Using a random walk model as a forecasting benchmark, the performance of several non-parametric models are compared. It is the backpropagation neural network which makes use of multiple hidden layers that performs the best, regardless of the time lag selected. This robust finding suggests that deep learning has several useful applications when forecasting Bitcoin returns using other cryptocurrency asset prices.

Date: Friday August 23rd 2019
Time: 2:00 PM
Room: Mackinnon 720