# Economics PhD Conference 2021

## Online

**Tuesday 29 June 2021**

**10:00 – 10:05** Welcome Address

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## SESSION I: Macro and Finance

**10:05 – 10:45** Carlos Javier Charotti

**10:45 – 11:25** Michael Grebe

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**11:25 – 11:35** Break

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## SESSION II: Development

**11:35 – 12:15** Sukanya Honkote

**12:15 – 12:55** Kriti Arora

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**12:55 – 13:00** Endnote/Thanks

All times are UK (BST).

## SESSION I: Macro and Finance

### 10:05 – 10:45 Carlos Javier Charotti

The Macroeconomics of a Government's Investment

This paper studies the macroeconomic effect of an exogenous change in public investment in a developing country. In particular, we focus on a central question: what is the effect on output of an increase in a government's investment in infrastructure? In order to answer this question, we use as a quasi-natural experiment the infrastructure investment made in Paraguay by the Itaipú Binacional hydroelectric dam. We show that the investment caused an average Paraguayan output increase of 0.5% to 2.6% per year between 1974-1984. In addition, we provide empirical evidence on the main channels that explain how changes in public investment affect output. The results are robust to placebo and robustness tests.

### 10:45 – 11:25 Michael Grebe

Forecasting Realized Variance with Echo State Networks

The ability of artificial neural Echo State Networks (ESN) to forecast daily realized variance is examined using high-frequency data. I apply the state-of-the-art Echo State Network to forecast realized variance of the S&P500 and 27 Dow Jones constituents and compare the results with those of the HAR model and HAR-Q modification. I use daily realized variance constructed using intraday returns, sampled at 5-minute intervals from 26 August 2011 to 27 August 2013. The estimatable parameters of the network are estimated such that they minimize the quasi-likelihood (QLIKE) loss function, rather than a MSE loss function, which presents a novel estimation approach. Furthermore, a simulation study is performed to examine the sensitivity of the architecture selection process with respect to the level of persistence in the data. A dynamic architecture selection approach is employed and the empirical results show that the Echo State Network outperformed the alternative HAR and HARQ model across majority of time series considered. Overall, the analysis has proven ESNs to be a promising alternative forecasting tool to the HAR model with improvement potential through further meta-parameter optimization.

## SESSION II: Development

**11:35 – 12:15 Sukanya Honkote**

Local Labour Market Effects of Special Economic Zones: Evidence from India

The effect of the establishment of export-oriented economic zones in India on local employment characteristics are studied at the district-level using cross-sectional labour-force survey data from the period 1999-00 to 2017-18. Suitable control areas are adopted by exploiting the different stages in the establishment of zones. Given that the crucial goal of SEZs in India is employment generation, findings will provide the first clues as to the net effects of SEZs on employment at the local level.

**12:15 – 12:55 Kriti Arora**

Equal Inheritance Rights and Women Empowerment in India

This paper investigates the impact of the State level Amendments to the Hindu Succession Act (1956), which allow women to have an equal share in ancestral property, on female autonomy in India. Using the India Human Development Survey (IHDS) of 2004-05, the study finds that having better inheritance rights leads to an increase in the educational attainment of women. However, this effect of the reform is not homogenous and varies with the age at which the women were exposed to the reform. The paper also finds that endowing women with inheritance rights at par with men increases their autonomy by giving them greater freedom of movement.