COLLOQUIUM

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~Capturing Regional Business Cycles with Matrix Variate Models and High-Frequency Indicators

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Time: 3:30 PM

Location: Neckers 156

Title:
Capturing Regional Business Cycles with Matrix Variate Models and High-Frequency Indicators

Abstract:
Large datasets of matrix-valued time series are increasingly common in economics and finance, but they are often subject to complex missing-data patterns, such as unbalanced panels and mixed-frequency settings. We develop a data augmentation scheme that can accommodate a large number of missing observations as well as rich cross-sectional and temporal correlation structures. We illustrate the methodology by producing model-based estimates of U.S. state-level quarterly GDP from 1988 onward using a large dataset of over 400 time series. These include state-level quarterly GDP data available from 2005, state-level annual GDP data from 1997, and a wide range of additional state-level macroeconomic variables dating back to 1988.

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