



香港中文大學統計學系

Department of Statistics

THE CHINESE UNIVERSITY OF HONG KONG

# SEMINAR

DEPARTMENT OF STATISTICS  
THE CHINESE UNIVERSITY OF HONG KONG

## Testing Instrumental Variable Validity with High-Dimensional Data and Heteroskedasticity

### INVITED SPEAKERS

Dr. Qingliang Fan,  
Assistant Professor,  
Department of Economics,  
The Chinese University of Hong Kong

### TIME

January 26, 2022 (Wednesday) · 2:00 pm - 3:00 pm,

### ABSTRACT

In this paper, we propose a new test of instrumental variable (IV) validity in data-rich environments in terms of either high-dimensional IV or controls. The test works under a growing number of instruments and (or) controls which could be even larger than the sample size. Moreover, the test is shown to have desired properties of size and power under heteroskedasticity. Simulation results show the new test performs favorably compared to existing alternative tests.

### VENUE

Zoom ID: 606 898 8598 · Password: cuhkstat · [Zoom link](#)