

HKUST ECON Seminar

Speaker

Prof Niccolò Lomys

Chinese University of Hong Kong

Estimation of Games under No Regret: Structural Econometrics for AI

Date: 11 September 2026 (Friday)

Time: 3:00 pm - 4:30 pm

Venue: Lee Shau Kee (LSK) Business Building, HKUST

Abstract

We develop a method to recover primitives from data generated by artificial intelligence (AI) agents in strategic environments such as online marketplaces and auctions. Building on how leading online learning AIs are designed, we assume agents minimize their regret. Under asymptotic no-regret, we show that time-average play converges to the set of Bayes coarse correlated equilibrium (BCCE) predictions. Our econometric procedure is based on BCCE restrictions and convergence rates of regret-minimizing AIs. We apply the method to pricing data in a digital marketplace for used smartphones. We estimate sellers' cost distributions and find lower markups than on centralized platforms.

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