September 9, 2024 2:00pm-3:00pm KAP 414

## Prof. Ziyu Zheng

## Discounting Game

**Abstract:** We provide a ``model-free" derivative pricing theory as a competitive discounting game. We show derivatives have unique market-implied seller prices without non-arbitrage condition or unique riskless rate, that can be considered as cashflow discounted with a market-implied Libor. We show entity-specific funding valuation adjustment (FVA) does not exist in price and the overnight indexed swap (OIS) discounting needs to be adjusted to fund hedges. We show there are market-implied bid-ask spreads and put call parity arbitrage that compensate dealers for market making. Arbitrage is an inherent part of the market and an economic surplus.

**Zoom Link**: USC Math Finance Colloquium

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