Workshop Program

THURSDAY, APRIL 20, 2023
1:00 – 4:30

Half-day Workshop on Nonparametric Methods for Short-Dated Options

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There is a recent dramatic increase in trading on exchanges of short-dated options i.e., options with very short time to expiration. This workshop covers nonparametric methods for extracting information from these options. Formal nonparametric econometric analysis of derivatives data has proven difficult. The complications arise from the highly non-linear dependence of option prices on state variables and parameters as well as the possible dependence in the option observation errors. The short-dated options allow to aggregate option data in ways that facilitates the practical application of asymptotic expansions for option maturities approaching zero.

We first start with introducing various model-free measures of spot volatility. These measures separate true spot volatility from the price jump component (and its pricing) as well as the volatility mean-reversion effects present in option prices. Following that, we introduce measures of risk-neutral jump variation and jump tails as well as methods for studying anticipated event risks. Empirical illustrations of the methods will be presented along with various applications for studying volatility forecasting, return predictability via option measures and analysis of risk premia.

Conference Venue
Fields Institute
222 College Street, 2nd Floor
Room 214
Toronto, ON M5T 3J1

For more information: click here
To register: click here
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