Speaker: **Meni Abudy, Bar Ilan University**

Title: **Learning from Anomaly Distributions: Expected Returns and Limits to Arbitrage**

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Abstract:

Firm characteristics (anomalies) that predict the cross-section of stock returns are typically treated as independent signals ,even though investors observe many overlapping signals. Adopting a top-down perspective on the statistical limits to arbitrage, we examine the cross-anomaly distribution and show how its moments shape expected returns .Modeling signals as noisy observations of a latent mispricing component, we frame arbitrageur behavior as a signal-extraction problem in which both mispricing and signal precision are inferred simultaneously. Using 140 anomaly measures for U.S. stocks, we find that higher-order moments—dispersion ,skewness, and kurtosis—capture economically meaningful information beyond the mean signal, even relative to flexible nonlinear models. Their predictive power arises primarily through interactions with the mean and with each other ,reflecting convexity in posterior precision. The informational content of dispersion and tail behavior has increased over time relative to the declining importance of the mean signal, underscoring the growing role of cross-anomaly distributional features in shaping expected returns. Portfolio analyses show that higher-moment signals generate economically and statistically significant returns, particularly when combined, even after accounting for realistic transaction costs. Overall, these results indicate that asymmetry and tail information embedded in anomaly forecasts provide incremental value beyond standard risk factors, enhance portfolio performance, and offer a parsimonious and interpretable summary of high-dimensional signals. They also identify uncertainty in anomaly signals as a novel channel of limits to arbitrage.