PHYSICS & ASTRONOMY COLLOQUIUM

Date: Thursday, 26 March 2020
Time: 1:30 p.m.
Location: Physics & Astronomy Seminar Room 100

Dr. Tyler Hayes
Quantitative Strategies and Risk Premia
CPP Investments

“Quant 101: A scientist’s view from the inside”

ABSTRACT

Quantitative investing covers a broad range of investment styles and asset classes. At its core, the differentiating factor from discretionary management is the ability to make the investment decisions systematic. By focusing on equities, we can make the concepts of quantitative investing more widely understood. A critical insight for quantitative investing from The Fundamental Law of Active Management (FLAM) states that the Information Ratio, a measure of risk adjusted performance, is proportional to the manager’s skill and number of independent bets taken by the manager. Transaction costs, risk, and alpha, must all be modelled for realistic implementation of a portfolio in the markets and often the manager must decide to “build or buy” these different components. For equity managers, the covariance matrix (risk model) must be factorized to have statistical significance and the factorization yields orders of magnitude computational advantages in practice. Return prediction models, often referred to as alpha models, often have hidden biases and techniques such as neutralization can remove these unintended bets. Neutralization is an investment decision which is dependent upon the economic sensibility of the model. Due to the highly technical and cross-disciplinary nature of quantitative investing, STEM students are highly sought after by investment firms.

HOST: S. Basu

COFFEE + light snacks will be available in the Atrium, 2nd floor, at 1:15 p.m.