Statistics in Finance

Ruey S. Tsay

Booth School of Business, University of Chicago

Abstract

Probability and statistics play an important role in finance. Financial applications also motivate many new developments in statistical research. In this talk, I begin with a brief summary of statistical applications in finance. I then discuss some recent research in financial econometrics, ranging from asset pricing to risk management such as bond pricing and correlated defaults. Finally, I outline some new statistical challenges in finance, including high-frequency and high-dimensional data analysis. Real examples are used throughout to demonstrate statistical applications.