# COLLOQUIUM
# UNIVERSITY OF PITTSBURGH
# FRIDAY, FEBRUARY 12, 2016

## 704 THACKERAY HALL
### 3:30 P.M.

### XINFU CHEN
**DEPARTMENT OF MATHEMATICS**
**UNIVERSITY OF PITTSBURGH**

### CHARACTERIZATION OF OPTIMAL STRATEGY FOR
### MULTI-ASSET INVESTMENT & CONSUMPTION
### WITH TRANSACTION COSTS

**ABSTRACT:** We consider the optimal consumption and investment with transaction costs on multiple assets, where the prices of risky assets jointly follow a multidimensional geometric Brownian motion. We characterize the optimal investment strategy and in particular prove by rigorous mathematical analysis that the trading region has the shape that is very much needed for well defining the trading strategy; e.g., the no-trading region has distinct corners. In contrast, the existing literature is restricted to either a single risky asset or multiple uncorrelated risky assets.

**Refreshments served at 3:00 p.m.**
**in the Math Dept. COMMON ROOM, Thackeray 705**