

This course addresses the following three topics:

- 1. Monte Carlo Methods for Early Exercise Derivatives (American Options, Game Options.)
- 2. Interest Rate Models
- 3. Credit Risk Modeling.

Recent research papers on these areas will be reviewed. Students are expected to implement major results from some reference papers. No textbooks. Papers and course notes will be provided.

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Class Time: W7W8W9 Office Hours: 1000 – 1300 Tuesday or by appointment Location: Room 733, TSMC Bldg (台積733)

Prerequisities:

Stochastic Financial Theory, Continuous-Time Finance, or equivalent courses.

Grading:

Assignments 30%, Exams(midterm and final) 50%, Course Project 20%.