

# 2016 NCTS

## Summer Course in Probability

7/25-8/5, 2016 10:00-15:30

8/9, 11, 16, 2016 10:00-14:00

Venue: Rm 102, Astro-Math Bldg., NTU

### Topic I

#### Introduction to Stochastic Calculus and Applications

- Brownian Motion
- Stochastic Integration
- Stochastic Differential Equations
- Applications

#### Prerequisite:

Basic mathematical analysis and some experience with measure theory approach of probability theory will be helpful. The book by David Williams will help you to develop some ideas about martingales and some of their applications. (In the afternoon session, TA will run study seminar to work on part of the book by David William)

**Lecturers:** 姜祖恕 (中研院數學所退休研究員) / 許順吉 (中央大學數學系)

**TA:** 陳韋達 (中央大學數學系博士生)

### Topic II

#### Markov Chains and Mixing Times

- Classical Theory of Markov Chains
- Quantitative Analysis of Mixing Times
- Analysis of Convergent Behavior
- Classical Examples

#### Prerequisite:

Undergraduate Probability Theory

#### Course perspective:

After the lectures, we encourage students to go through the notes, which will be distributed during speeches, and to join the informal discussion on related topics and open problems.

**Lecturer:** 陳冠宇 (交通大學應數系)

報名方式：填寫報名表單 <https://goo.gl/jKxxqd>

報名截止：7/4

聯絡人：黃小姐 [wendyhuang@ncts.ntu.edu.tw](mailto:wendyhuang@ncts.ntu.edu.tw), (02)3366-8812

網頁資訊：<http://goo.gl/EHo2f>

