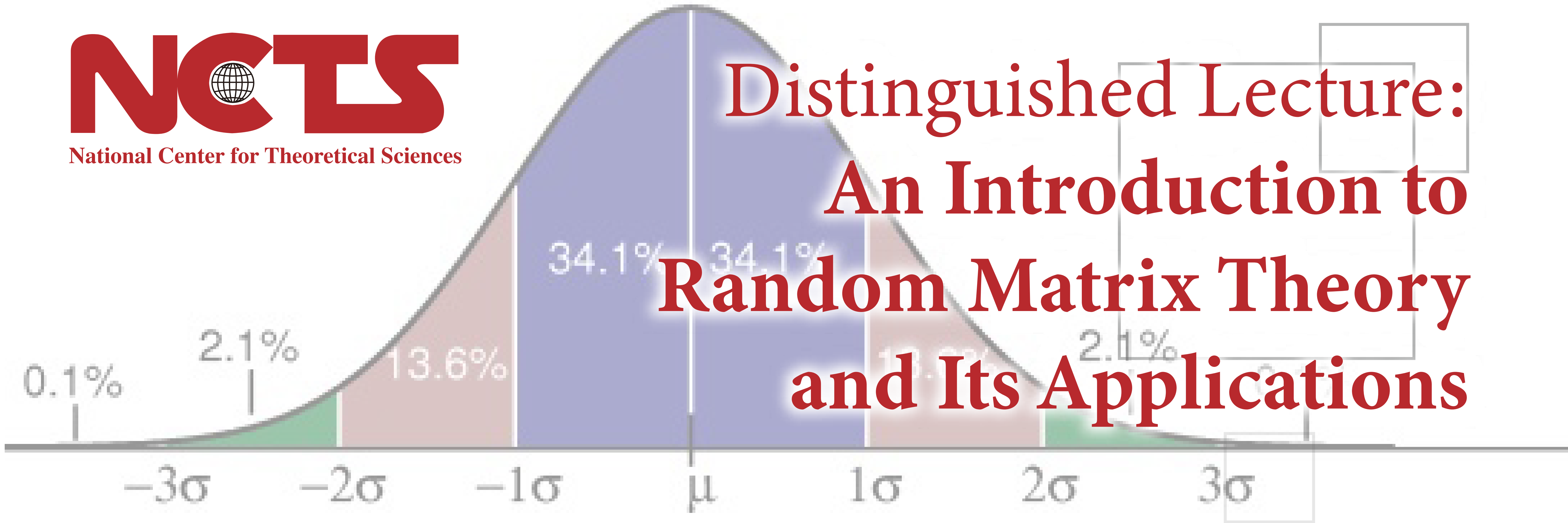
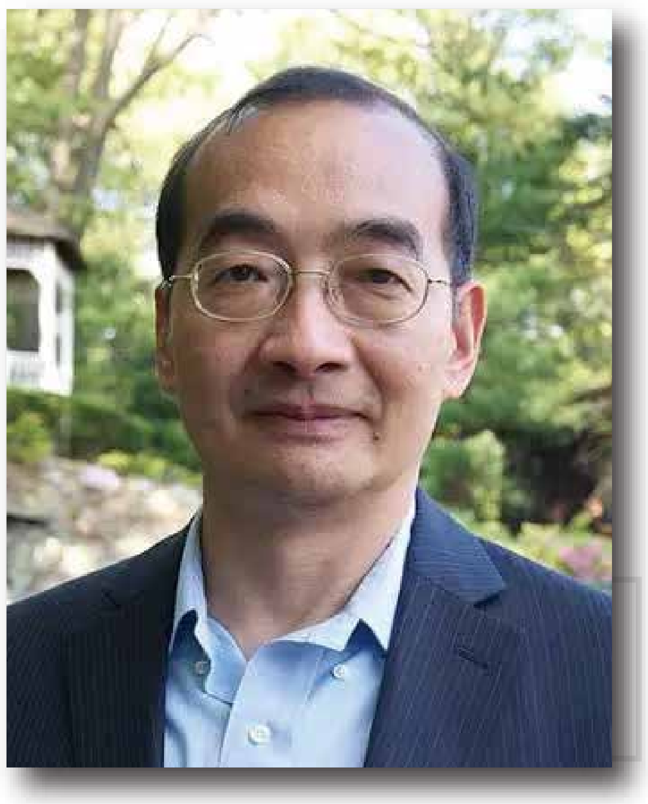
NCTS
National Center for Theoretical Sciences



Distinguished Lecture: An Introduction to Random Matrix Theory and Its Applications

Time | 2026/01/05

Venue | R515, Cosmology Building, NTU



Horng-Tzer Yau
Harvard University

姚鴻澤 教授1981年畢業於臺灣大學數學系,2014 年獲選為臺大傑出校友,目前也是 Distinguished NCTS Scholar 。他是數學物理、分析與機率論領域的領導者,研究成果影響了機率論、隨機過程、隨機矩陣、非平衡態統計物理和量子力學等,為當今世上影響層面最深最廣的數學家之一。

姚鴻澤教授曾獲龐加萊獎與參克阿瑟獎,也是美國國家科學院院士，最近也以在隨機矩陣的突破性研究，獲美國數學會頒發 2026 Leroy P. Steele Prize for Seminal Contribution to Research。

國家理論科學研究中心有幸邀請姚院士於 2026 年 1 月 5 日舉辦 NCTS Distinguished Lecture, 介紹隨機矩陣和相關應用。歡迎有興趣的同學以及數學界同仁共同參與,故於lecture.結束設有一小時的交流活動,期望藉由 Q&A、學術交流讓台灣數學界激盪出不同的火花。

Title

An Introduction to Random Matrix Theory and Its Applications

Agenda

13:45-14:00 Registration
14:00-15:00 NCTS Distinguished Lecture
15:00-16:00 Q&A and Tea Break

Abstract

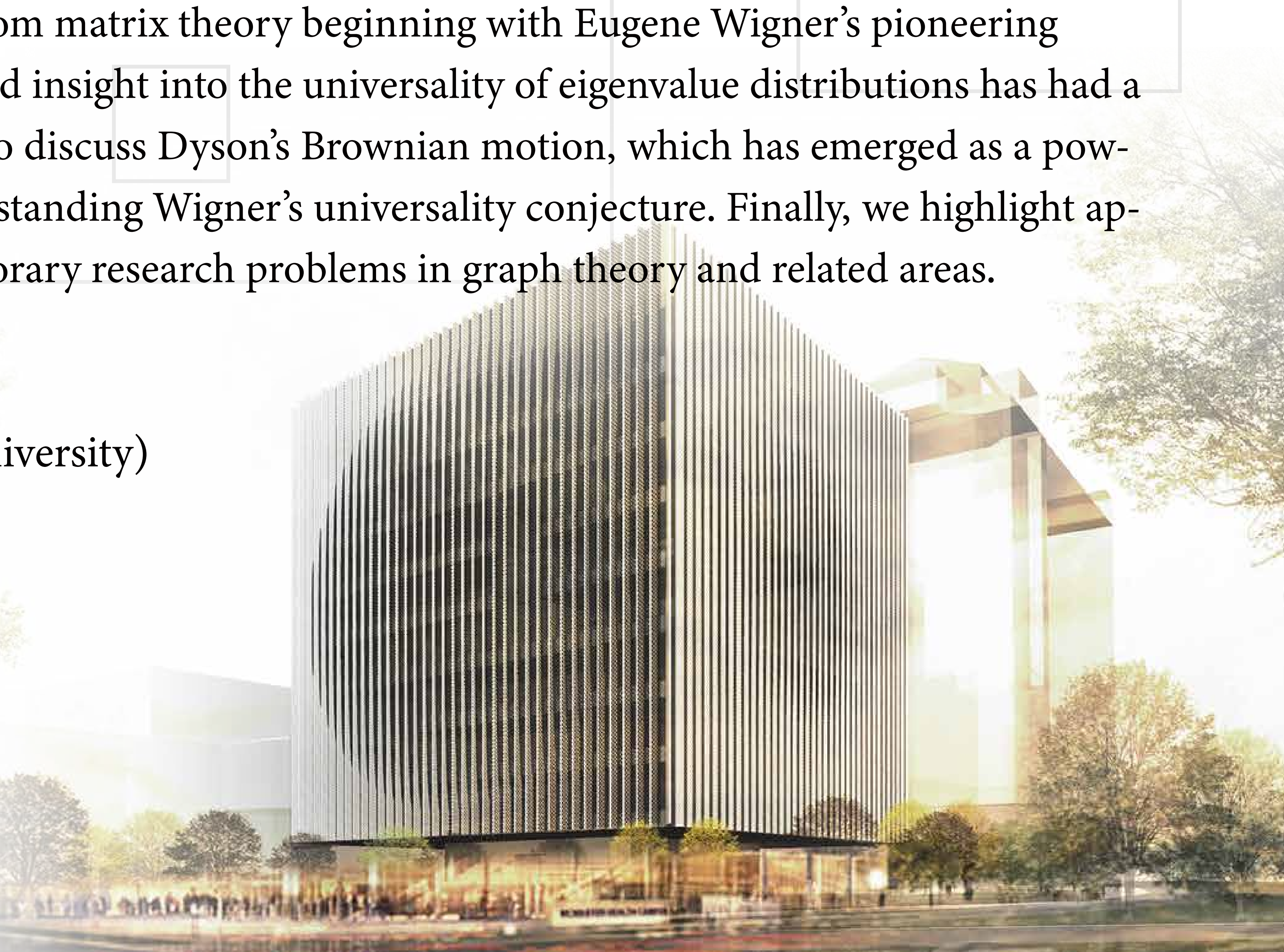
We review the development of random matrix theory beginning with Eugene Wigner’s pioneering work in the 1960s. Wigner’s profound insight into the universality of eigenvalue distributions has had a lasting influence on the field. We also discuss Dyson’s Brownian motion, which has emerged as a powerful tool for establishing and understanding Wigner’s universality conjecture. Finally, we highlight applications of these ideas to contemporary research problems in graph theory and related areas.

Organizer

Mao-Pei Tsui (National Taiwan University)

Contact:
Peggy Lee (peggylee@ncts.tw)

報名網頁

活動網頁