

# Harmonic Analysis in Free Probability

## Time

7.1~12, 2024

13:30- 17:00  
from Monday to Friday

## Venue

Room 505,  
Cosmology  
Building, NTU

## Contact

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Registration

## Speaker

Jiun-Chau Wang  
University of Saskatchewan

## Organizer

Hao-Wei Huang  
National Tsing Hua University

## Introduction&Purposes

This is a short course in free probability, aimed at students and researchers who have never been exposed to free probability. Our focus is on the so-called R-transform, which is a useful tool for analyzing the limiting behavior of the eigenvalue distribution for certain large random matrices. We hope this course can serve as an invitation to this new, exciting area in mathematics.

## Prerequisites

Measure theory and linear algebra (spectral theorem) in any standard undergraduate curriculum.