## 國立中山大學應用數學系 學術演講

講 者: Professor Jacob Richey (The HUN-REN Rényi Institute)

講 題:Activated random walks and shifts of finite type

時 間: 2025/12/4 (Thursday) 15:30 ~ 16:30

地 點:理SC 4009-1 教室

茶 會:15:10

Google Meet Link: <a href="https://meet.google.com/qwq-numf-dic">https://meet.google.com/qwq-numf-dic</a>

## **Abstract**

I will focus on two topics in the world of statistical physics and combinatorial probability. The first is activated random walk (ARW), an interacting particle system and toy model of self-organized criticality (SOC), a statistical phenomenon that occurs in complex systems like avalanches and earthquakes. I will present new results and suggest how special properties of ARW may be used to explain SOC in a mathematically rigorous way. The second topic is shifts of finite type, a class of discrete dynamical systems. Computing statistics associated to a shift space, like its entropy, is often difficult, even computationally. I will share new probabilistic ideas which suggest a deep connection between such statistics and easily computed combinatorial information.

敬請公告!歡迎參加!

應用數學系:<u>http://math.nsysu.edu.tw</u>

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