

# 國立中興大學應用數學系所 學術演講



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**講題：**

**A Game-Theoretic Exploration of Group Competition and Formation through Online Learning Algorithms**

**摘要：**

Election campaign among two or more parties are ubiquitous in democratic countries. One might be curious about the question: “How bad will it be in terms of the social welfare?” In this talk, we introduce a macro-perspective which views parties as players and candidates nomination as their strategies. Then, we consider the existence of a pure-strategy Nash equilibrium and discuss how bad it can be with respect to the optimal state. For the second part of the talk, we focus on group formation of individuals as myopic strategic agents. Through their group-joining strategies or their opinion updates, we demonstrate how the whole society evolves using decentralized online learning algorithms.

**時間：**

**2023/12/21(四) 14:10-15:00**

**地點：**

**資訊科學大樓 501 室**

**資科所研究生務必參加**

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