

# 國立陽明交通大學應用數學系

## 學術演講公告

主講人：梁育豪教授（高雄大學應用數學系）

講題：Flocking in a New Discrete-Time and Discrete-State  
Cucker-Smale Model

時間：111 年 12 月 6 日(星期二) 下午 2:00 –3:00

地點：(光復校區) 科學一館 223 室

### Abstract

Collective motions are ubiquitous in nature and experiments. Nowadays, several models have been proposed to explain these. In this talk, we introduce a new discrete-time and discrete-state flocking model based on the Cucker-Smale one. Then some sufficient conditions to assert flocking dynamics occurs almost surely are derived. Roughly speaking, it happens as the communicate rate is less than or equal to some critical value. In the case of the large communicate rate, the probability that flocking can not be achieved for a given initial state is positive is also proved. Some numerical simulations to support our theoretical results are provided.

敬請公告    歡迎參加

應用數學系    啟