

國立中正大學數學系
暨應用數學碩士班、統計科學碩士班
學 術 演 講

**Propagating Direction Near the Strong-Competition Borderline
in the 2-Species Lotka-Volterra Competition Model**

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Abstract

In ecology, determining the characteristics of dominant species in species interactions is an important research problem. In mathematics, traveling wave solutions are often used to represent such interactions. Among these, the sign of the traveling wave speed plays an important role. However, under strong competition condition, determining the sign of the wave speed is a very interesting problem. In particular, near the strong competition borderline, determining the sign of the wave speed becomes very difficult.

In this talk, we will introduce this problem through the Girardin Conjecture and present our new approach, which utilizes the minimax techniques to determine the sign of the traveling wave speed.

Moreover, this method can determine the wave speed when the coefficients are near the strong competition threshold.

日 期：115 年 9 月 9 日(星期三) 15:00~16:00

地 點：本校數學館 312 教室（嘉義縣民雄鄉大學路 168 號）

茶 會：14:30~15:00 數學館四樓 409 室舉行

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