

時移季轉 爭衡勢遷

Global dynamics of competitive systems under seasonal succession

Time

July 21-24, 2025

10:00-12:00, 14:00-16:00

Venue

Lecture Room B,
4th Floor,
The 3rd General Building,
NTHU

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Registration

Speaker



Lei Niu
Donghua University

Organizers



Sze-Bi Hsu
National Tsing Hua University



Jia-Yuan Dai

Introduction & Purposes

Seasonal succession imposes periodic forcing on ecological dynamics, coupling internal species interactions with external rhythms. Such models pose challenges due to time-discontinuous vector fields. This lecture series presents a topological approach to study Lotka–Volterra competition systems, using the carrying simplices and fixed-point indices to analyze the global dynamics under seasonal change.

Prerequisites

Basic understanding of ordinary differential equations and dynamical systems.