

Complex Systems Arising from Evolution Biology

Time&Venue

10:00-11:00, June 18, 2026 @R. 509, Cosmology Bldg, NTU

14:00-15:00, June 22, 2026 @R. 505, Cosmology Bldg, NTU

10:00-11:00, June 24, 2026 @R. 505, Cosmology Bldg, NTU

Speaker

Wei-Kuo Chen

University of Minnesota

Organizers

Wai Kit Lam

National Taiwan University

Yuan-Chung Sheu

National Yang Ming Chiao Tung University

Introduction & Purposes

The primary goal of this lecture series is to introduce several emerging topics in evolutionary biology. In particular, we will focus on the NK model, introduced by Kauffman, Levin, and Weinberger, which is a random fitness function defined on the genomes of certain species with N genetic loci, each interacting with K others. This model has broad applicability in the study of evolution and natural selection, as it captures the inherent ruggedness of fitness landscapes.

Outline & Descriptions

Throughout the series, we will highlight recent developments, outline the underlying mathematical approaches, and present open problems that are especially well suited for graduate students and junior researchers seeking to broaden their research directions.

Prerequisites

Participants are expected to be familiar with material from at least a first-semester graduate course in probability.

Contact: Murphy Yu (murphyyu@ncts.tw)

