

2019 NCTS Summer Course on Dynamical Systems: Combinatorics in Holomorphic Dynamics

Speaker:

Russell Lodge (Indiana State University)

Venue: Rm 201, NCTS (Astro-Math Bldg., NTU)

Time: 7/1(Mon.) - 7/5(Fri.) 14:00 - 16:00

課程背景與目的：

該課程主要著重在holomorphic函數所產生的動態系統，動機是1970年代兩位費爾茲獎得主Milnor-Thurston所推導出的Kneading Theory之後續衍生的一個重要方向。該課程主要針對一個變數的holomorphic函數，介紹其背後的拓樸行為、動態行為、符號系統及其與Teichmueller幾何的重要聯繫，這是目前動態系統領域的一個重要且深刻的方向，希望藉由該課程的引進來提供國內學生及學者關於動態系統一個新觀點及方向。

課程之大綱：

A major consequence of the rigidity of holomorphic maps is the existence of simple but powerful combinatorial models for holomorphic dynamical systems (very much in the spirit of Milnor-Thurston kneading theory). This minicourse will introduce the dynamical theory of single-variable holomorphic maps, emphasizing their combinatorics and symbolic dynamics. The iterated monodromy group, which historically gave the first examples of intermediate growth, will be introduced as a powerful algebraic invariant. Finally, W. Thurston's characterization of rational maps will be discussed, and as time permits, Hubbard's twisted rabbit problem and the dynamics on augmented Teichmueller space.

Organizers: Jung-Chao Ban (National Chengchi University)

More information:



Registration:

