# Schedule

## The 2019 Fall Program of Low-Dimensional Dynamics

## Week 3(Sept.16- Sept. 20)

| **Monday (Sept. 16)** | **Gu Lecture Hall, SCMS** |
|---|---|
| 9:30 – 11:30 | Walter Bergweiler |
| 14:30 – 15:30 | Francois Ledrappier |
| 15:30 – 16:30 | Tea Break |
| 16:30 – 17:30 | Free Discussion |
| **Tuesday (Sept. 17)** | **Gu Lecture Hall, SCMS** |
| 9:30 – 11:30 | Walter Bergweiler |
| 14:30 – 17:30 | Free Discussion |
| **Wednesday (Sept. 18)** | **Gu Lecture Hall, SCMS** |
| 10:00 – 11:00 | Francois Ledrappier |
| 14:30 – 17:30 | Free Discussion |
| **Thursday (Sept. 19)** | **Gu Lecture Hall, SCMS** |
| 9:30 – 11:30 | Free Discussion |
| 14:30 – 16:30 | Francois Ledrappier |
| 16:30 – 17:30 | Free Discussion |

(1) 9 月 12-17 日

Lecture series by Bergweiler (Kiel)

Title: Iteration of entire functions

Abstract: We give an introduction to the iteration theory of entire functions. In the first lecture we introduce the basic concepts of complex dynamics and then focus on the escaping set of an entire function which consists of all points that tend to infinity under iteration. In particular, we prove that the escaping set of a transcendental entire function is not empty and that its boundary coincides with the Julia set. In the second lecture we consider the Eremenko-Lyubich class of all transcendental entire functions for which the set of critical and asymptotic values is bounded. We introduce the logarithmic change of variables associated to this class and we show that for functions in this class the escaping set is contained in the Julia set. The third lecture is then devoted to the Lebesgue measure and Hausdorff dimension of Julia sets and escaping sets of entire functions.

(2) 9 月 16 日-20 日

Lecture series by Ledrappier (Norte Dame)

Title: Entropy and rigidity of compact negatively curved manifolds

Abstract: We consider closed negatively curved manifolds. We introduce a family of probability measures on the unit tangent bundle that have nice entropy properties and that interpolate between the Burger-Roblin measure and the Liouville measure.

Lecture 1: Setting; the rigidity problem

Lecture 2: Diffusions along stable manifolds; a family of measures

Lecture 3: Random dynamics and stochastic flows

Lecture 4: Proof of (0.1) and (0.2) from Lecture 3