



Mini-Workshop on Low-Dimensional Dynamical Systems and Related Topics: Frontiers in Topological Dynamical Systems

Date: October 22, 2026 (Thursday)
Time: 15:30–17:10 (China Standard Time, UTC+8)
(Arrival: October 21, 2026; Departure: October 23, 2026)
Venue: Room 2001, Guanghai East Main Building (Handan Campus)
Fudan University, Shanghai, China

Invited speakers

Piotr Oprocha — University of Ostrava, Czech Republic
Dominik Kwietniak — Jagiellonian University in Krakow, Poland

Organizer: Guohua Zhang (Fudan University)
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Program

October 22, 2026 · Room 2001		
Time	Speaker	Talk
15:30–16:20	Piotr Oprocha	On typical interval maps and Lebesgue measure
16:20–17:10	Dominik Kwietniak	Upper and lower bounds for the Borel complexity of conjugacy of minimal subshifts and subshifts with the specification property

Talks and abstracts

On typical interval maps and Lebesgue measure

Piotr Oprocha | 15:30–16:20

University of Ostrava, Czech Republic

Abstract. In this talk I will review recent progress in the study of topological and measure-theoretic properties of generic one-dimensional Lebesgue measure-preserving maps. I will address several natural properties of generic continuous maps of the interval and circle which preserve the Lebesgue measure, such as the structure of periodic points, mixing properties, shadowing properties, entropies, and the structure of the simplex of invariant measures. I will also connect these results to maps with a dense set of periodic points. If time permits, I will also speak about the situation when Lebesgue measure is a reference measure for an attractor.

The talk is based on joint work with Jozef Bobok, Jernej Činč, and Serge Troubetzkoy.

Upper and lower bounds for the Borel complexity of conjugacy of minimal subshifts and subshifts with the specification property

Dominik Kwietniak | 16:20–17:10

Jagiellonian University in Krakow, Poland

Abstract. By a theorem of Clemens, topological conjugacy of subshifts is a universal countable Borel equivalence relation. We bound from above and below the Borel complexity of its restrictions to minimal subshifts and to subshifts with the specification property.

For minimal subshifts, conjugacy is known to be nonsmooth, and Gao asks whether it is hyperfinite or universal. For subshifts with specification, joint work with Konrad Deka, Bo Peng and Marcin Sabok shows that conjugacy is not treeable. Hence Bowen's Problem 32, which asks for a classification of these subshifts, admits no solution by concrete invariants. We also present a proof that neither relation is universal. Thus conjugacy of subshifts with specification is neither treeable nor universal, and conjugacy of minimal subshifts is nonsmooth and not universal. Whether it is hyperfinite remains open.