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Short Course

Topological Dynamics: Minimality, Chaos and Dynamical Compactness

Professor Sergiy Kolyada

Institute of Mathematics, National Academy of Sciences of Ukraine

Abstract: Topological dynamics – one of the central topics of the Dynamical Systems Theory. I want to present the general ideas of the discrete dynamical systems given by compact Hausdorff (metric) spaces and continuous their selfmaps.

The following topics will be considered:

Topological transitivity and minimality: Topologically transitive maps; Minimal maps; Minimal sets and spaces.

Li-Yorke sensitivity and other concepts of chaos: On chaotic interval maps; Topological chaos and Li-Yorke chaos; Li-Yorke sensitivity and weakly mixing maps; On Lyapunov numbers;

Dynamical compactness: Transitive compactness; Transitive compactness and various stronger forms of sensitivity; Multi-sensitivity and transitive sensitivity.

Functional envelope of a dynamical system: Introduction and topological transitivity; Topological entropy of a functional envelope.

Date: 4, 11, 18, 25 March 2016 (Friday)
Time: 10:00 a.m. - 12:00 noon
Venue: Room 219, Lady Shaw Building
The Chinese University of Hong Kong, Shatin

All are Welcome!