



Department
of Applied Mathematics

Invitation to a talk by

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On shadowing and average shadowing

Time

Wednesday, 7 September, from 10:00 AM to 11:00 AM

Venue

Room B2

Abstract

In this talk I will examine relations between "mean" versions of shadowing property (mainly AASP) and transitivity.

Let $f: X \rightarrow X$ be a continuous map on a compact metric space (X, d) . Recall that a sequence $\{x_i\}_{i=0}^{\infty}$ is an *asymptotic average pseudo-orbit of f* provided that

$$\lim_{n \rightarrow \infty} \frac{1}{n+1} \sum_{i=0}^n d(f(x_i), x_{i+1}) = 0.$$

A sequence $\{x_i\}_{i=0}^{\infty}$ is *asymptotically shadowed on average* by a point $z \in X$ provided that

$$\lim_{n \rightarrow \infty} \frac{1}{n+1} \sum_{i=0}^n d(x_i, f^i(z)) = 0.$$

The map f has the *asymptotic average shadowing property* (abbreviated *AASP*) provided that every asymptotic average pseudo-orbit of f is asymptotically shadowed on average by some point in X .