

# Average shadowing properties: a few sufficient conditions

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Average shadowing properties generalize standard shadowing properties (e.g. shadowing, limit shadowing) by considering averages of errors in consecutive steps of pseudo-orbit rather than ordinary error in each step. This modification enables application of average shadowing in dynamical systems where we cannot control error in each step, but we can ensure that average error is sufficiently small. In particular, there are maps with average shadowing property but without shadowing property.

In this talk we will survey recent results on average shadowing properties. We will present a few sufficient conditions that ensure average shadowing and comment on relations between average shadowing and notions from topological dynamics, like shadowing property, mixing, specification, proximality and the like.