SHADOWING IN AFFINE ITERATED FUNCTION SYSTEMS

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Abstract. We are concerned with the Shadowing in set-valued dynamical systems, including Iterated Function Systems. We prove that a scalar affine IFS has the Shadowing Property iff it is contracting or strictly expanding. The latter, in turn, is equivalent to hyperbolicity of the corresponding linear skew-product flow over the Bernoulli shift.

Key Words and Phrases: Shadowing property, iterated function system, linear skew-product flow.

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