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# Skew products of interval maps over sub-shifts

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## Abstract

We treat step skew products over transitive subshifts of finite type with interval fibers. The fiber maps are diffeomorphisms on the interval; we assume that the end points of the interval are fixed under the fiber maps. We further assume positive Lyapunov exponents at the interval end points. Our work thus extends work by V. Kleptsyn and D. Volk who treated step skew products where the fiber maps map the interval strictly inside itself.

We clarify the dynamics for an open and dense subset of such skew products. In particular we prove existence of a finite collection of disjoint attracting invariant graphs. These graphs are contained in disjoint areas in the phase space called trapping strips. Trapping strips are either disjoint from the end points of the interval (internal trapping strips) or they are bounded by an end point (border trapping strips). The attracting graphs in these different trapping strips have different properties.

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