Asymptotic escape rates for one dimensional maps

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Abstract

Given a dynamical system with an invariant measure, the escape rate measures the speed at which measure escapes from a ball of radius r, say. The asymptotic escape rate (when it exists) describes asymptotic behaviour of the ratio of the escape rate to r, as r tends to zero. We will consider the asymptotic escape rates for a broad class of interval maps and rational maps, beyond the small family of uniformly hyperbolic maps for which the result was previously known. This is joint work with Mariusz Urbanski (UNT).