

ON APPROACH-RATE CONDITIONS IN UNIMODAL DYNAMICS

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*Abstract.* The relation between recurrent behavior and the absence of a stable periodic orbit is discussed for unimodal maps. Almost all periodic maps are non-recurrent and almost all non-periodic are recurrent. Still one feels that the critical orbit cannot accumulate too quickly on the critical point, if it wants to avoid an asymptotic periodic behavior. We obtain exponential bounds of this type. Our main tools are some properties of the so called kneading map, and for completeness we include relevant definitions and proofs.