1154-37-2563 **Marco Antonio López*** (lopezma@wfu.edu). *Dimensions and measures of shrinking target sets.*

Generally speaking, a shrinking target set for a dynamical system $T\colon X \to X$ and a countable family of subsets $A_n \subseteq X$ is the set of points $x \in X$ whose orbits satisfy $T^n(x) \in A_n$ for infinitely many n.

Two main questions arise in this situation. If the shrinking target set has zero Lebesgue measure, what is it's Hausdorff dimension? We will demonstrate how the theory of thermodynamic formalism helps us address this question. The other question is whether we can characterize the shrinking target sets according to whether they have zero or full measure (in the sense of Lebesgue or Hausdorff). In this direction, a dichotomy law is often obtained.

We will discuss such problems in the context of non-autonomous conformal iterated function systems. (Received September 17, 2019)