

THE BOUNDARY OF CHAOS

SOFIA TREJO

Using the topological entropy as the measurement of the complexity of a dynamical system, we would like to understand the transition between simple and chaotic dynamics. More specifically, we would like to give a full characterization of those interval maps which lie on the boundary of two sets: the set of maps with positive entropy, and the interior of the set of maps with zero entropy. It has been conjectured that this set, known as the boundary of chaos, agrees with the maps for which the set of periods of periodic orbits corresponds to all powers of two. In this talk, I will discuss the connection between the problem and the theory of renormalisation and talk about the resolution of the conjecture in the analytic setting.