

Uniquely maximizing measures

Oliver Jenkinson

Abstract

Fix any topological dynamical system. An invariant measure is called uniquely maximizing if it is the unique invariant measure maximizing the integral of some continuous function. The first result is: every ergodic measure is uniquely maximizing (the converse is also true, but trivial). The second result concerns determining specific maximizing measures for a specific family of functions and the specific dynamical system $T(x) = 2x \pmod{1}$.