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Ryan Peckner* (rpeckner@math.princeton.edu). *Uniqueness of the measure of maximal entropy for the squarefree flow.*

The squarefree flow is a natural dynamical system whose topological and ergodic properties are closely linked to the behavior of squarefree numbers. We prove that the squarefree flow carries a unique measure of maximal entropy and describe the structure of the associated measure-preserving dynamical system. Our method involves first studying approximations arising from finite collections of prime numbers, then taking a limit under Ornstein's \bar{d} -metric in order to consider all primes simultaneously. This is accomplished by exhibiting uniform Gibbs bounds for a sequence of sofic systems and constructing explicit joinings between them in order to estimate their \bar{d} -distances. (Received February 10, 2013)