

1154-37-107

Travis A Dillon* (travis.a.dillon@lawrence.edu). *Entropy of \mathcal{S} -graph shifts*. Preliminary report.

Symbolic dynamics arose as a way to study dynamical systems by discretizing space. The primary tools in symbolic dynamics are collections of infinite symbolic sequences called shift spaces. Of particular interest is a shift space's entropy, which is an invariant of the system and a measure of its complexity.

One specific class of shift spaces, called S -gap shifts, has been well-studied and is notable for its rich dynamical and combinatorial structure. In this talk, we generalize S -gap shifts to a much larger class of shift spaces called \mathcal{S} -graph shifts. We then prove a formula for the entropy of \mathcal{S} -graph shifts, which extends the entropy formula for S -gap shifts. This talk assumes no prior knowledge of dynamical systems or symbolic dynamics. (Received August 07, 2019)