

1112-37-626

Stefan Adams, Raimundo Briceno, Brian Marcus and Ronnie Pavlov* (rpavlov@du.edu).

Computation of topological entropy for \mathbb{Z}^d shifts of finite type.

It has been well-known for some time that the topological entropy of a \mathbb{Z}^d shift of finite type may have no closed form, and in fact may even be noncomputable. For this reason, it's worthwhile to find provable approximation schemes for the topological entropy of such systems. I will give a brief survey of hypotheses which allow for approximation schemes for entropy, with varying computation times. The best such results typically leverage uniqueness of the measure of maximal entropy for the system, but I will conclude by outlining recent joint work (with Adams, Briceno, and Marcus) which allows for efficient approximation for some systems where the measure of maximal entropy is not unique. (Received August 11, 2015)