A Geometric Approach to Voiculescu-Brown Entropy

David Kerr

Abstract. A basic problem in dynamics is to identify systems with positive entropy, i.e., systems which are “chaotic.” While there is a vast collection of results addressing this issue in topological dynamics, the phenomenon of positive entropy remains by and large a mystery within the broader noncommutative domain of $C^*$-algebraic dynamics. To shed some light on the noncommutative situation we propose a geometric perspective inspired by work of Glasner and Weiss on topological entropy. This is a written version of the author’s talk at the Winter 2002 Meeting of the Canadian Mathematical Society in Ottawa, Ontario.