

Rokhlin dimension, conditional mean dimension, and dynamical embedding problem

Bingbing Liang 梁兵兵
(Soochow University)

Rokhlin dimension is useful in C^* dynamics. If a free continuous \mathbb{Z}^k -action on a compact metrizable space of finite covering dimension is of finite Rokhlin dimension, then the induced crossed product C^* -algebra is of finite nuclear dimension. Conditional mean dimension is a relative notion of mean dimension as a uniform measurement of dimension information of fibers for a dynamical factor map. Combining these two notions, we will exhibit a result on the dynamical embedding problem. This is a refinement of the result due to Gutman-Qiao and Szabo.