

Ordered K-theory for crossed products of the Cantor set by free minimal actions of \mathbf{Z}^d

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Let \mathbf{Z}^d act freely and minimally on the Cantor set X , and let $A = C^*(\mathbf{Z}^d, X)$ be the crossed product C^* -algebra. In a recent paper in *Commun. Math. Phys.*, Ian Putnam considered the special case in which the action arises from a substitution tiling system satisfying the finite pattern condition, and proved that the order on $K_0(A)$ is determined by traces. That is, an element of $K_0(A)$ is positive whenever its images under the maps determined by all the tracial states are strictly positive. We show that this result holds for arbitrary free minimal actions of \mathbf{Z}^d on the Cantor set, and obtain additional information about such crossed products.