

Decomposition complexity is a property of metric spaces generalizing the concept of asymptotic dimension. It was first introduced by Guentner, Tessera and Yu. For example all countable linear groups equipped with a proper (left-)invariant metric are known to have finite decomposition complexity (FDC). By a result of Ramras, Tessera and Yu the K -theoretic assembly map

$$H_n(BG; \mathbb{K}_R) \rightarrow K_n(R[G])$$

is injective for every group G with FDC that admits a compact model for BG (and therefore is torsion-free) and for every ring R . We give a generalization of this result, which in particular allows for groups with torsion.