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Separable \aleph_k -free modules with almost trivial dual

Comment.Math.Univ.Carolin. 57,1 (2016) 7–20.

Abstract: An R -module M has an almost trivial dual if there are no epimorphisms from M to the free R -module of countable infinite rank $R^{(\omega)}$. For every natural number $k > 1$, we construct arbitrarily large separable \aleph_k -free R -modules with almost trivial dual by means of Shelah’s Easy Black Box, which is a combinatorial principle provable in ZFC.

Keywords: prediction principles; almost free modules; dual modules

AMS Subject Classification: 13B10, 13B35, 13C13, 13J10, 13L05

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