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Separable \aleph_k -free modules with almost trivial dual. (English) Zbl 1374.13011
Commentat. Math. Univ. Carol. 57, No. 1, 7-20 (2016).

Summary: 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.

MSC:

- [13B10](#) Morphisms of commutative rings
- [13B35](#) Completion of commutative rings
- [13C13](#) Other special types of modules and ideals in commutative rings
- [13J10](#) Complete rings, completion
- [13L05](#) Applications of logic to commutative algebra

Cited in **2** Documents

Keywords:

prediction principles; almost free modules; dual modules

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