The Schröder-Bernstein Problem for Modules

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Abstract

We study Schröder-Bernstein problem for modules that are invariant under endomorphisms or automorphisms of their envelopes. In particular, we obtain a positive solution for Schröder-Bernstein problem in case of modules invariant under endomorphisms of their injective or pure-injective envelopes or flat modules invariant under endomorphisms of their cotorsion envelopes. In case of injective envelopes, we are able to extend it further and we show that Schröder-Bernstein problem has a positive solution even for modules that are invariant only under automorphisms of their injective envelopes.

Keywords

Schröder-Bernstein problem, Automorphism-invariant modules