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Matrix rings with summand intersection property. (English) Zbl 1080.16503

Czech. Math. J. 53, No. 3, 621-626 (2003).

Summary: A ring R has right SIP (SSP) if the intersection (sum) of two direct summands of R is also a direct summand. We show that the right SIP (SSP) is a Morita invariant property. We also prove that the trivial extension of R by M has SIP if and only if R has SIP and $(1-e)Me=0$ for every idempotent e in R. Moreover, we give necessary and sufficient conditions for the generalized upper triangular matrix rings to have SIP.

MSC:

16D70 Structure and classification for modules, bimodules and ideals (except as in 16Gxx), direct sum decomposition and cancellation in associative algebras)

16S50 Endomorphism rings; matrix rings

Cited in **1** Document

Keywords:

direct summands; trivial extensions; triangular matrix rings; summand intersection property; summand sum property; Morita invariants

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