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One-directed indecomposable pure injective modules over string algebras. (English)

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This work is a further step in Ringel's program classifying indecomposable pure injective modules over finite-dimensional string algebras. As the main result, the authors prove in Theorem 5.4 that the isomorphism type of an indecomposable pure injective module M over a string algebra admitting a one-sided word $w(m)$ for some nonzero element $m \in M$ is determined by $w(m)$ and, conversely, for every one-sided word w there exists an indecomposable pure injective module M with $w = w(m)$ for some $0 \neq m \in M$. Moreover, this correspondence is one-to-one for infinite words. Several interesting applications of this result are given.

Reviewer: Ánh Pham Ngoc (Budapest)

MSC:

16G20 Representations of quivers and partially ordered sets
16D50 Injective modules, self-injective associative rings

Keywords:

pure injective modules; string algebras; infinite words

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