ON LARGE SEMI-MODULES

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Abstract

In this paper, the notion of large semi-module is introduced. It is shown that the class $SM(R)$ of all semimodules over a given semiring R possesses large semi-modules. For a cancellative semiring R, it is shown that the class of all cancellative large semimodules is regular if and only if R is a regular ring. If R is an additvely idempotent semiring, then there is an f-injective large R-semimodule.

Keywords and phrases: large structure, large semimodule, f-injective semimodule.