ABSOLUTE CO-SUPPLEMENT AND ABSOLUTE CO-COCLOSED MODULES

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A module $M$ is called an absolute co-coclosed (absolute co-supplement) module if whenever $M \cong T/X$ the submodule $X$ of $T$ is a coclosed (supplement) submodule of $T$. Rings for which all modules are absolute co-coclosed (absolute co-supplement) are precisely determined. We also investigate the rings whose (finitely generated) absolute co-supplement modules are projective. We show that a commutative domain $R$ is a Dedekind domain if and only if every submodule of an absolute co-supplement $R$-module is absolute co-supplement. We also prove that every extension of an absolute co-coclosed module by an absolute co-coclosed module is absolute co-coclosed.

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References


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