Modules with Fusible Decomposition

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Abstract. In this paper, we extend the concept of fusibility to the module-theoretic setting by introducing fusible modules. Let R be a ring with identity, M a right R-module and $0 \neq m \in M$. Then, m is called *fusible* if it can be expressed as the sum of a torsion element and a torsion-free element in M. The module M is said to be *fusible* if every non-zero element of M is fusible. We investigate some properties of fusible modules. It is proved that the class of fusible modules is between the classes of torsion-free and nonsingular modules.

References

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