
SOME RESULTS ON CHAINED H. F. R-MODULES

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ABSTRACT

Let R be a commutative ring with decrees unity. This study aims to investigate several results on Chained H.F. R-modules for creating a broader analysis of their behavior over such rings. In this broader framework, we include the concept of multiplication H.F. R-modules that render a deeper analysis within the fuzzy R-modules. Thus, this gives room for a more thorough investigation of its assets and conduct while under an exchange ring. Our study is more about examples and basic properties of these notions. Further, we analyze a relationship between Chained H.F. R-modules and their comparability or decomposability. Also, we have introduced a study of direct and sum of Chained H.F. R-modules because this assumption is of great relevance within fuzzy theory of module. Insight into these structures adds beyond the complexity of the subject and furthers current research in algebra and commutative ring theory.

Keywords Chained H.F. R-modules · Comparable · Multiplication H.F. R-module · H.F. ideals

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