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قراءن موريتا في الأصناف الأبيلية

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Abstract : Wide Morita contexts" are extension~ of Morita contexts» in abelian categories This notion was introduced by F. Castaño Iglesias and J. Gomez-Torrecilla~ in Communications in Algebra, Vol 23, in 1995. There are two main branches of this extension, which are tensor right and left wide Morita contexts. Right wide Morita contexts deal with the extensions of Morita context, from modules over rings to abelian categories, while left wide Morita contexts can be viewed as extensions of contexts of comodules over coalgebras to abelian categories. Using the tools developed in these wide Morita contexts many equivalences and dualities studied in module and comodule categories are now extended to abelian categories. One thing that was given less attention is, the injectivity criterion. In the present work our aim here is to fill this gap by studying and upgrading the properties of injective Morita contexts to injective right wide Morita contexts. Moreover, besides giving a review of this newly developed branch, some definitions will be modified and some known results related to equivalences of categories will be re-stated. In particular, the tensor product of two bimodules is studied as a ring and an equivalence condition is added in the classical statement of Morita Theorem. Rational systems are studied for general rings related to Morita context and we have used them to deduce the injectivity criterion.

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