On graded fully idempotent modules

Author(s):
ElMahdy, SS (ElMahdy, SS)
E-mail: scimathdept@mans.edu.eg
[1] MANSOURA UNIV,FAC SCI,DEPT MATH,MANSOURA 35516,EGYPT

Abstract
Let R be a graded ring of type G, where G is a multiplicative group with identity element e. Then, in the category gr-R of graded right R-modules, we introduce the concept of graded fully idempotentness and study the class of graded fully idempotent modules. A module ME gr-R is said to be graded fully idempotent (shortly : Gr-FI) if m is an element of h (S(m)M*(m)) for every homogeneous element m is an element of M. We give a list of equivalent conditions for M to be Gr-FI including the condition that M is a Gr-locally projective module and TI = TI2 for any graded left ideal I of R, where T is the graded trace ideal of M. It is also shown that the graded endomorphism ring of a finitely generated Gr-FI module is Gr-fully left idempotent.

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1. Title: ON REGULAR MODULES

- Author(s): Chen, Huanyin; Nicholson, W. K.
- Source: BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY Volume: 84 Issue: 2 Pages: 280-287 DOI: 10.1017/S0004972711002176 Published: OCT 2011

2. Title: Generalization of regular modules

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- Source: COMMUNICATIONS IN ALGEBRA Volume: 35 Issue: 11 Pages: 3331-3345 DOI: 10.1080/00927870701410660 Published: 2007

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- Author(s): Ershad, M.; Amiri, N.
- Source: ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING Volume: 36 Issue: 6 Pages: 963-966 DOI: 10.1007/s13369-011-0087-z Published: OCT 2011

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- Source: JOURNAL OF PURE AND APPLIED ALGEBRA Volume: 215 Issue: 8 Pages: 1879-1888 DOI: 10.1016/j.jpaa.2010.11.001 Published: AUG 2011

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- Author(s): Kasch, Friedrich
- Conference: International Conference on Algebras and Coalgebras Location: Cairo, EGYPT Date: MAR 25-30, 2006

- Sponsor(s): Amer Univ Cairo; Cairo Univ; Math Sci Res Ctr
- Source: APPLIED CATEGORICAL STRUCTURES Volume: 16 Issue: 1-2 Pages: 159-166 DOI: 10.1007/s10485-007-9068-5 Published: APR 2008

6. Title: Relative regular objects in categories

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- Author(s): Zhu, Zhanmin
- Source: TURKISH JOURNAL OF MATHEMATICS Volume: 35 Issue: 3 Pages: 375-382 DOI: 10.3906/mat-0911-141 Published: 2011

10. Title: STRONGLY DUO MODULES AND RINGS

- Author(s): Khabazian, H.; Safaeeyan, S.; Vedadi, M. R.
- Source: COMMUNICATIONS IN ALGEBRA Volume: 38 Issue: 8 Pages: 2832-2842 DOI: 10.1080/00927870903085245 Published: 2010

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Author(s):
ElMahdy, SS (ElMahdy, SS)
AHMED, E (AHMED, E)
HEGAZI, AS (HEGAZI, AS)
ELMAHDY, SS (ELMAHDY, SS)
E-mail: scimathdept@mans.edu.eg
[1] MANSOURA UNIV,FAC SCI,DEPT MATH,MANSOURA 35516,EGYPT

Abstract

Anyonic variables are introduced. They are shown to give a representation of the quantum hyperplane.

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