A breaf survey on rigid rings

Dušan Jokanović[1] and Marina Milićević[1]

[1]Production and Managemant Faculty Trebinje, University of East Sarajevo,
dusanjok@yahoo.com, marina.zirojevic@live.com

In this paper we consider rigid rings end their generalizations. The notation R is used for an associative ring with identity, σ will denote an endomorphism of a ring R and $R[x;\sigma]$ is a skew polynomial ring with multiplication subject to the relation $xr = \sigma(r)x$ for all $r \in R$. A ring R is σ-rigid if $a\sigma(a) = 0$ implies $a = 0$ for all $a \in R$. We say that a ring R is weak $\sigma-$ rigid if $a\sigma(a) \in \mathrm{nil}(R)$ if and only if $a \in \mathrm{nil}(R)$. We deal with preserving rigid property under constructions of product, limits and various extensions over rigid rings.

References

[1] D. Jokanović, A note to quasi-rigid rings, Math. Montisnigri **12** (2010), 9–14.

[2] D. Jokanović, Properties of Armendariz rings and weak Armendariz rings, Publ. Inst. Math. (Beograd) (N.S.) **85**(99) (2009), 131–137.

[3] H. Kose, B. Ungor and S. Halicioglu, A generalization of reduced rings, Hacet. J. Math. Stat. **41** (2012), 689–696.

[4] H. Pourtaherian and I. S. Rakhimov, On Armendariz ring and its generalizations, JP Journal of Algebra, Number Theory and Applications **15**(2) (2009), 101–111.

[5] M. R. Rege, S. Chhawchharia, *Armendariz rings*, Proc. Japan Acad. Ser. A Math. Sci. **73** (1997), 14–17.

[6] M. V. Mehrabadi and S. Sahebi, *Central α-rigid rings*, Palest. J. Math. **6**(2) (2017), 569–572.