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Title:	Some characterizations of VNL rings
Authors:	Khurana, Dinesh (/jspui/browse?type=author&value=Khurana%2C+Dinesh)
Keywords:	Exchange rings Semiperfect rings VNL rings
Issue Date:	2009
Publisher:	Taylor & Francis Group, LLC.
Citation:	Communications in Algebra, 37 (9), pp. 3288-3305.
Abstract:	A ring R is said to be von Neumann local (VNL) if for any $a \in R$, either a or $1 - a$ is (von Neumann) regular. The class of VNL rings lies properly between exchange rings and (von Neumann) regular rings. We characterize abelian VNL rings. We also characterize and classify arbitrary VNL rings without an infinite set of orthogonal idempotents; and also the VNL rings having a primitive idempotent e such that eRe is not a division ring. We prove that a semiperfect ring R is VNL if and only if for any right uni-modular row $(a_1, a_2) \in R^2$, one of the a_i 's is regular in R . Formal triangular matrix rings that are VNL are also characterized. As a corollary, it is shown that an upper triangular matrix ring $T_n(R)$ is VNL if and only if $n = 2$ or 3 and R is a division ring.
Description:	Only IISERM authors are available in the record.
URI:	http://www.tandfonline.com/doi/full/10.1080/00927870802502761 (http://www.tandfonline.com/doi/full/10.1080/00927870802502761) http://arxiv.org/abs/0801.2470 (http://arxiv.org/abs/0801.2470)
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