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On regular matrices over a pseudoring. (Chinese. English summary) Zbl 07366931
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Summary: A generalized inverse of an $n \times n$ matrix $A$ over a pseudoring means an $n \times n$ matrix $G$ satisfying $AGA = A$. In this paper, we give the Rao normal forms of the idempotent matrices over a pseudoring, and establish necessary and sufficient conditions for a matrix to possess generalized inverse.

MSC:
15A09 Theory of matrix inversion and generalized inverses
15A12 Conditioning of matrices

Keywords:
idempotent matrix; regular matrix; generalized inverse

Full Text: DOI