

On generalized quadratic matrices

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Abstract

Extending an approach considered by Radjawi and Rosenthal (2002), we investigate the set of square matrices whose square equals a linear combination of the matrix itself and an idempotent matrix. Special attention is paid to the Moore-Penrose and group inverse of matrices belonging to this set.

References:

Radjawi, H. and P. Rosenthal (2002). On commutators of idempotents. *Linear and Multilinear Algebra* 50, 121-124.