

Generalizations of the formulas by Greville and Kovarik involving orthogonal projectors

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Abstract

Greville (1974) and Kovarik (1977) combined projectors in several ways to obtain new projectors. Their approach was based on the nonsingularity of certain matrix functions. Relaxing their assumptions, we show that their formulas can be generalized to the singular case. The resulting oblique projectors are investigated with respect to their column spaces, null spaces, and ranks.

Keywords

Oblique projector, Orthogonal projector, Column space, Null space, Rank.

References

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