THE RANK-CONSTRAINED ANTI-SYMMETRIC SOLUTION OF THE MATRIX EQUATION $AX = B$ AND THE OPTIMAL APPROXIMATION

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Abstract

By applying the matrix rank method, the set of the antisymmetric matrix solution with prescribed ranks to the matrix equation $AX = B$ is presented. The expression of the optimal approximation solution to the set of the minimal rank solution $S_{\tilde{m}}$ is provided.