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THE RESTRICTED WEIGHTED GENERALIZED INVERSE OF A MATRIX*

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Abstract. We introduce the T-restricted weighted generalized inverse of a singular matrix A with respect to a positive semidefinite matrix T, which defines a seminorm for the space. The new approach proposed is that since T is positive semidefinite, the minimal seminorm solution is considered for all vectors perpendicular to the kernel of T.

Key words. Moore-Penrose inverse, Weighted Moore-Penrose inverse.

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