THE WEIGHTED MOORE–PENROSE INVERSE FOR SUM OF MATRICES

ZHIPING XIONG AND YINGYING QIN

Abstract. In this paper we exhibit that under the rank additivity condition \( r(A + B) = r(A) + r(B) \), a neat relationship between the weighted Moore-Penrose inverse of \( A + B \) and the weighted Moore-Penrose inverses of \( A \) and \( B \).


Keywords and phrases: Moore-Penrose inverse, weighted Moore-Penrose inverse, weighted singular value decomposition, rank additivity, sum of matrices.

REFERENCES