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GROUP INVERSE FOR THE BLOCK MATRIX WITH
TWO IDENTICAL SUBBLOCKS OVER SKEW FIELDS[*]

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Abstract. Let K be a skew field and $K^{n \times n}$ be the set of all $n \times n$ matrices over K. The purpose of this paper is to give some necessary and sufficient conditions for the existence and the representations of the group inverse of the block matrix $\begin{pmatrix} A & B \\ C & D \end{pmatrix}$ under some conditions.

Key words. Skew fields, Block matrix, Group inverse.

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