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THE EXPLICIT REPRESENTATIONS OF THE DRAZIN INVERSES OF A CLASS OF BLOCK MATRICES[*]

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Abstract. Let $M = \begin{pmatrix} A & B \\ C & D \end{pmatrix}$ be a 2×2 block matrix, where $ABC = 0$ and either $DC = 0$ or $BD = 0$. This paper gives the explicit representations of M^D in terms of $A, B, C, D, A^D, (BC)^D$ and D^D.

Key words. Block matrix, Drazin inverse, Index.

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