BLOCK REPRESENTATIONS OF THE DRAZIN INVERSE OF A BIPARTITE MATRIX∗

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Abstract. Block representations of the Drazin inverse of a bipartite matrix
\[
A = \begin{bmatrix} 0 & B \\ C & 0 \end{bmatrix}
\]

in terms of the Drazin inverse of the smaller order block product \(BC\) or \(CB\) are presented. Relationships between the index of \(A\) and the index of \(BC\) are determined, and examples are given to illustrate all such possible relationships.

Key words. Drazin inverse, Bipartite matrix.

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