A TWO-MATRIX ALTERNATIVE∗

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Abstract. An algorithm for computing a solution of a two-matrix alternative is described. Given two square matrices $A, B \in \mathbb{R}^{n \times n}$, it computes a nontrivial solution either to $|Ax| \leq |B||x|$, or to $|Ay| > |B||y|$.

Key words. Two-matrix alternative, Solution, Algorithm.

AMS subject classifications. 15A06, 65G40.

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