$$\boxed{\textbf{ELA}}$$

DESCRIPTION OF ALL SOLUTIONS OF A LINEAR COMPLEMENTARITY PROBLEM[*]

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Abstract. Description of all solutions of an $n \times n$ linear complementarity problem $x^+ = Mx^- + q$ in terms of 2^n matrices and their Moore-Penrose inverses is given. The result is applied to describe all solutions of the absolute value equation $Ax + B|x| = b$.

Key words. Linear complementarity problem, Moore-Penrose inverse, Verified solution, Absolute value equation.

AMS subject classifications. 90C33.