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LEFT EIGENVALUES OF 2×2 SYMPLECTIC MATRICES[*]

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Abstract. A complete characterization is obtained of the 2×2 symplectic matrices that have an infinite number of left eigenvalues. Also, a new proof is given of a result of Huang and So on the number of eigenvalues of a quaternionic matrix. This is achieved by applying an algorithm for the resolution of equations due to De Leo et al.

Key words. Quaternions, Quadratic equation, Left eigenvalues, Symplectic matrix.

AMS subject classifications. 15A04, 11R52, 15A33.