A CHARACTERIZATION OF STRONG REGULARITY
OF INTERVAL MATRICES[*]

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Abstract. As the main result of this paper it is proved that an interval matrix $[A_c - \Delta, A_c + \Delta]$ is strongly regular if and only if the matrix inequality $M(I - |I - RA_c| - |R|\Delta) \geq I$ has a solution, where M and R are real square matrices and M is nonnegative. Several consequences of this result are drawn.

Key words. Interval matrix, Strong regularity, Spectral radius, Matrix inequality, Solvability.

AMS subject classifications. 65G40.