PERTURBATIONS OF FUNCTIONS OF
DIAGONALIZABLE MATRICES

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Abstract. Let $A$ and $\tilde{A}$ be $n \times n$ diagonalizable matrices and $f$ be a function defined on their spectra. In the present paper, bounds for the norm of $f(A) - f(\tilde{A})$ are established. Applications to differential equations are also discussed.

Key words. Matrix valued functions, Perturbations, Similarity of matrices, Diagonalizable matrices.

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