INvariance of Total NONNegativity of a Tridiagonal Matrix Under Element–Wise Perturbation

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Abstract. Tridiagonal matrices are considered which are totally nonnegative, i.e., all their minors are nonnegative. The largest amount is given by which the single entries of such a matrix can be perturbed without losing the property of total nonnegativity.


Keywords and phrases: Totally nonnegative matrix, tridiagonal matrix, element-wise perturbation, determinantal inequalities.

REFERENCES