

Recent applications of the Cauchon algorithm to totally nonnegative matrices

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Abstract

The Cauchon algorithm, see, e.g., [?], has been applied to totally nonnegative matrices in order to characterize these matrices [?] and their subclasses [?], to recognize totally nonnegative matrix cells [?], and to derive determinantal criteria for this class of matrices [?]. In this talk we report on some recent applications of this algorithm, e.g., to the study the invariance of total nonnegativity under element-wise perturbation and the subdirect sum of two totally nonnegative matrices [?], to the investigation of the interval property of sign regular matrices, and to the determination of the rank of an arbitrary matrix [?].

Keywords

Cauchon algorithm, totally nonnegative matrix, subdirect sum, interval property, rank.

References

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