Bruhat Order for Symmetric $(0,1)$-Matrices

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Abstract

Extending the Bruhat order for permutation matrices, in [1] a Bruhat order for the class of m-by-n $(0,1)$-matrices with prescribed row and column sum vectors was defined. Minimal matrices for this Bruhat order (a partial order) were studied in this paper and in the subsequent paper [2].

In this talk we present some results, obtained in [3], related with the description of the minimal matrices in the Bruhat order for the class of symmetric $(0,1)$-matrices with given row sum vector. We start by giving some properties of these minimal matrices. We also present minimal matrices in the Bruhat order for some particular such classes of symmetric $(0,1)$-matrices. Some connections with the term rank of a matrix will be established.

References

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