

## POLYNOMIAL RECONSTRUCTION OF SIGNED GRAPHS WHOSE LEAST EIGENVALUE IS CLOSE TO $-2^*$

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**Abstract.** The polynomial reconstruction problem for simple graphs has been considered in the literature for more than forty years and is not yet resolved except for some special classes of graphs. Recently, the same problem has been put forward for signed graphs. Here, the reconstruction of the characteristic polynomial of signed graphs whose vertex-deleted subgraphs have least eigenvalue greater than  $-2$  is considered.

**Key words.** Signed graph, Characteristic polynomial, Eigenvalues, Signed line graph, Exceptional graph, Numerical computation.

**AMS subject classifications.** 05C50, 65F15.

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