

Gershgorin type sets for polynomial eigenvalue problems

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Abstract

New localization results for polynomial eigenvalue problems are obtained, by extending the notions of the Gershgorin set, the generalized Gershgorin set (known also as the \mathcal{A} -Ostrowski set), the Brauer set, and the Dashnic-Zusmanovich set, to the case of matrix polynomials. For each eigenvalues' inclusion set, basic topological and geometrical properties are presented, and illustrative examples are given.

References

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