QUADRATIC EIGENVALUE PROBLEMS: CANONICAL FORMS AND INVERSE PROBLEMS

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Abstract: Recent work concerning the structure of canonical forms for Hermitian (or real symmetric) matrix polynomials will be introduced. This will be utilised in: (1) The description of a technique for "updating" selected eigenvalues and/or eigenvectors of symmetric quadratic systems. (2) The determination of quadratic systems for which "half" the spectral data is prescribed in the form of a linear right divisor.

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