Pseudospectra for structured matrix perturbations

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A pseudospectrum of a square matrix A is defined as the set of eigenvalues of all matrices of the form $A + E$, where the perturbation E is an element of a given bounded matrix set. Pseudospectra are a well established tool in Systems Theory and Numerical Analysis. After a short introduction to the general theory we discuss pseudospectra for real and Hamiltonian perturbations as well as for coupled linear systems. Another topic will be the relationship between pseudospectra and structured eigenvalue condition numbers.