Deflation Strategies for Nonlinear Eigenvalue Problems

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Deflation for linear eigenvalue problems is a standard technique that consists of removing a known eigenvalue or changing it so that the other eigenvalues are easier to find. In this talk we discuss and compare different strategies to deflate eigenvalues of nonlinear eigenvalue problems. We will pay particular attention to the quadratic eigenvalue problem and introduce a deflation strategy based on structure preserving transformations.