An Approach to Explicitly Restarting Strategy for Arnoldi Method

N. Emad
Laboratoire PRiSM
University of Versailles
France

The Multiple Explicitly Restarted Arnoldi Method (MERAM) proposed in [1, 2] is a technique to compute a few eigenpairs of a large sparse non-Hermitian matrix. This method is based upon a multiple use of Explicitly Restarted Arnoldi Method (ERAM) and accelerates its convergence. The MERAM allows to update the restarting vector of an ERAM by taking the interesting eigen-information obtained by the other ones into account. We present results achieved by MERAM on some dierent programming environments. These results show that we can obtain a good acceleration of the convergence compared to ERAM and Implicitly Restarted Arnoldi Method.