FLEXIBLE GMRES FOR TOTAL VARIATION REGULARIZATION

M. Sabaté Landman
Department of Mathematics, University of Bath
United Kingdom
m.sabate.landman@bath.ac.uk

Krylov subspace methods are powerful iterative regularization tools for large-scale linear inverse problems, such as those arising in image deblurring and computed tomography. We exploit a flexible version of some Krylov subspace methods, which uses adaptive preconditioning to promote TV-like regularization in the solution. Numerical experiments and comparisons with other well-known methods for the computation of large-scale solutions are presented.