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Research Theme in This Project： Solution of inverese problems and its application (e.g. to Pharmacokinetic models), Iterative solution of least squares problems and systems of linear equations

Main Research Results, Publications：


1. Hayami, K., Yin, J.-F., and Ito, T. GMRES methods for least squares problems,
   SIAM Journal on Matrix Analysis and Applications , Vol. 31, No. 5, pp. 2400-2430, 2010.
2. Hayami, K. and Sugihara, M., A geometric view of Krylov subspace methods on singular systems,
   Numerical Linear Algebra with Applications, Vol. 18, pp. 449-469, 2011.
3. Hayami, K. and Sugihara, M., Corrigendum to: A geometric view of Krylov subspace methods on singular systems,
   Numerical Linear Algebra with Applications, Vol. 21, pp. 701-702, 2014.
4. Cui, X., Hayami K., and Yin, J.-F., Greville's method for preconditioning least squares problems,
   Advances in Computational Mathematics , Vol. 35, pp. 243-269, 2011.
5. Morikuni, K., and Hayami, K., Inner-iteration Krylov subspace methods for least squares problems,
   SIAM Journal on Matrix Analysis and Applications, Vol. 34, No. 1, pp. 1-22, 2013.
6. Morikuni, K., Reichel, L., and Hayami, K., FGMRES for linear discrete ill-posed problems,
   Applied Numerical Mathematics., Vol. 75, pp. 175-187, 2013.
7. Aoki, Y., Hayami, K., De Sterck, H. and Konagaya, A., Cluster Newton method for sampling multiple solutions of an underdetermined
   inverse problem: Parameter identification for pharmacokinetics, SIAM Journal on Scientific Computing , Vol. 36, No. 1,
   pp. B14-B44, 2014.
8. Morikuni, K. and Hayami, K., Convergence of inner-iteration GMRES methods for least squares problems,
   SIAM Journal on Matrix Analysis and Applications, Vol. 36, No. 1, pp. 225-250, 2015.
9. Gaudreau, P., Hayami, K., Aoki, Y., Safoui, H., and Konagaya, A.,
   Improvements to the Cluster Newton method for underdetermined inverse problems,
   Journal of Computational and Applied Mathematics, Vol. 283, pp. 122-141, 2015.


Recent Activities (hobbies, etc.)：