

Modified Block BiCGSTAB for Lattice QCD

Y. Nakamura^{*a}, K. -I. Ishikawa^b, Y. Kuramashi^{c,d,a,f}, T. Sakurai^{e,f}, H. Tadano^{e,d,f}

^aRIKEN Advanced Institute for Computational Science, Kobe, Hyogo 650-0047, Japan

^bGraduate School of Science, Hiroshima University, Higashi-Hiroshima, Hiroshima 739-8526, Japan

^cGraduate School of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8571, Japan

^dCenter for Computational Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan

^eDepartment of Computer Science, University of Tsukuba, Tsukuba, Ibaraki 305-8573, Japan

^fJST, CREST, 5, Sanbancho, Chiyoda-ku, Tokyo 102-0075, Japan

E-mail: nakamura@riken.jp

We presented “Modified block BiCGSTAB for lattice QCD”, results for application of block BiCGSTAB algorithm modified by the QR decomposition and the SAP preconditioner to the Wilson-Dirac equation with multiple right-hand sides in lattice QCD on $32^3 \times 64$ and 64^4 lattices at almost physical quark masses.

Reference:

Y. Nakamura, K.-I. Ishikawa, Y. Kuramashi, T. Sakurai, and H. Tadano,
Modified block BiCGSTAB for lattice QCD, *Comput. Phys. Commun.* 183 (2012) 34.

The XXIX International Symposium on Lattice Field Theory
July 10-16, 2011
Squaw Valley, California, USA

*Speaker.