
Tamito KAJIYAMA       Akira NUKADA
JST CREST and the University of Tokyo JST CREST and the University of Tokyo
kajiyama@is.s.u-tokyo.ac.jp nukada@is.s.u-tokyo.ac.jp

Hidehiko HASEGAWA       Reiji SUDA
University of Tsukuba and JST CREST The University of Tokyo and JST CREST
hasegawa@slis.tsukuba.ac.jp reiji@is.s.u-tokyo.ac.jp

Akira NISHIDA
The University of Tokyo and JST CREST
nishida@is.s.u-tokyo.ac.jp

Abstract

This paper presents a novel application framework named Simple Interface for Library Collections (SILC) that allows users to make use of matrix computation libraries in a flexible and language-independent manner. Using SILC, various computing environments as well as alternative solvers and matrix storage formats from different libraries can be easily utilized. The present paper describes the design and implementation of SILC for shared-memory parallel computing environments, and discusses the use of LAPACK in the framework of SILC together with some experimental results on the performance of the implemented system.