

Status and physics plan of the PACS-CS Project

Presenter: Akira Ukawa (Center for Computational Sciences, University of Tsukuba)

PACS-CS Collaboration: S. Aoki, K.-I. Ishikawa, T. Ishikawa, N. Ishizuka, K. Kanaya, Y. Kuramashi, M. Okawa, K. Sasaki, Y. Taniguchi, N. Tsutsui, A. Ukawa, T. Yoshié

Abstract: PACS-CS is a large-scale cluster system with a peak speed of 14.3Tflops for lattice QCD developed at the Center for Computational Sciences, University of Tsukuba, as the successor to the CP-PACS computer. The system consist of 2560 nodes connected by a 16x16x10 three-dimensional hyper crossbar network. Each node has a single low-voltage 2.8GHz Xeon processor with 2GBytes of memory and an aggregate network bandwidth of 750MByte/sec. We plan to pursue the $N_f = 2+1$ dynamical simulation with the Wilson-clover quark action, lowering the up-down quark masses as much as possible using the domain-decomposition ideas of Luescher. The status of the machine development as well as the physics plans will be described. The machine is scheduled to go into operation on 1 July 2006, so hopefully we may be able to report on some test results from the initial runs.