



# Center for Computational Physics University of Tsukuba

<http://www.rccp.tsukuba.ac.jp/>

## Objectives

- Research and development of high performance massively parallel computers for computational physics
- Research with them in
  - particle physics
  - astrophysics
  - condensed matter physics
  - parallel computer science

## Heterogeneous Multi-Computer System

### • CP-PACS engine for fields, developed at CCP

- 2048 processing nodes + 128 I/O nodes
- 614 GFLOPS (64-bit)
- 128 GB main storage
- 1.1TB distributed RAID-5 disks
- 3-D hyper-crossbar network



CP-PACS

The CP-PACS was ranked No.1 in the TOP 500 in Nov. 1996



GRAPE-6 with host cluster

### PAVEMENT

parallel I/O and  
visualization system

### • GRAPE-6 engine for particles

- 8 boards (256 chips)
- 8.4 TFLOPS

## Grid and Related Researches

- Development of Grid middlewares
  - OmniRPC: a Grid RPC system for parallel processing
- International Lattice Data Grid
  - International Data Grid for Lattice QCD configurations
- Grid collaborations on SuperSINET and Tsukuba-WAN in Japan
  - AIST Grid Technology Research Center
  - Tokyo Institute of Technology, Matsuoka Lab.