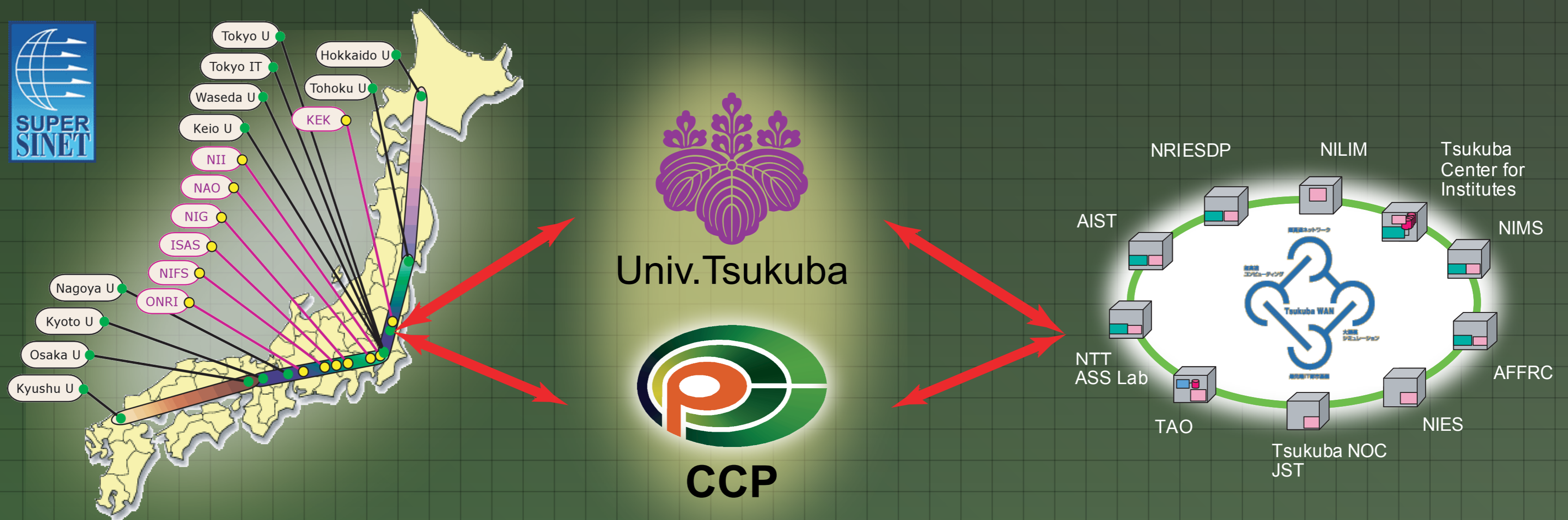




# Network Environment and Collaborative Works

## SuperSINET and Tsukuba-WAN



University of Tsukuba is at the junction point of two very high-speed wide area networks in Japan, SuperSINET and Tsukuba-WAN. SuperSINET is the largest and fastest network infrastructure for universities and research institutes under MEXT (Ministry of Education, Culture, Sports, Science and Technology) for wide variety of research projects. Tsukuba-WAN is a regional wide area network especially dedicated for multiple disciplinary collaborative researches in Tsukuba Science City.

CCP has three connections to SuperSINET and one connection to Tsukuba-WAN for collaborative works such as Inter-Campus Grid System, Lattice QCD database sharing and Heterogeneous Computing for Astrophysics.

## Collaborative works over dedicated WAN

- Lattice QCD Database Sharing (SuperSINET)**  
 A large scale database for QCD configuration provided by calculation with CP-PACS and other HPC facilities is shared with KEK and other high energy particle physics research institutes and universities.
- Inter-Campus Grid System (SuperSINET)**  
 Constructing wide area Grid environment between two universities, University of Tsukuba and Tokyo Institute of Technology, for developing various Grid middleware as well as experimental execution of practical HPC applications based on multiple PC cluster systems.
- Heterogeneous Computing on AstroPhysics (SuperSINET)**  
 HMCS-G (Grid-enabled Heterogeneous Multi-Computer System) with PC clusters and special purpose processor for gravity, GRAPE-6, are cooperated in remote environment with high-speed network for the simulation on radiation hydrodynamics.
- Regional Grid research in Tsukuba Science City (Tsukuba-WAN)**  
 CCP and AIST (National Institute of Advanced Industrial Science and Technology, MITI) share PC cluster resources for developing Grid middleware and applications.

