

# **HPCI** (High Performance Computing Infrastructure) and AGOYA JHPCN (Joint Usage/Research Center for Interdisciplinary Large-scale Information Infrastructures)

## **Nationwide Joint-use Systems**

Information Technology Center (ITC), Nagoya University is providing large-scale computation resources to nationwide researchers as a Joint Usage / Research Center, which is admitted by Ministry of Education, Culture, Sports, Science and Technology, Japan.

### **HPCI**

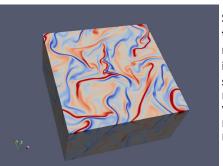
HPCI establishes a high performance computing infrastructure that consists of main supercomputers, such as K computer (under replacement to Fugaku), supercomputers in universities and institutes, with an academic network to satisfy wider requirements from users. The supercomputers in ITC, Nagova University are also one of the HPCI resources.

## **JHPCN**

The Joint Usage / Research Center for Information Interdisciplinary Large-scale Infrastructures (JHPCN) is made up of eight centers equipped with supercomputers. This is a network-type joint usage and collaborative research center, and its core institution is the Information Technology Center of University of Tokyo.

JHPCN accepts submissions of collaborative researches and its reviewing and acceptance in Nagoya Institute of Technology 4 kinds of research field for very large-scale computations.

Interdisciplinary collaborative researches performed with tightly collaboration between applicants and faculties of JHPCN centers.



#### Simulation of auroral turbulence in the magnetosphereionosphere coupling system

Provided by Tomo-Hiko Watanabe, Department of Physics, School of Science Nagoya University

## **HPCI** Resources



Source: http://www.hpci-office.jp/pages/e what is hpci

# Research Results by using Supercomputers in ITC, Nagoya U.

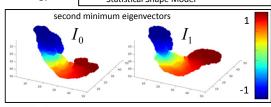


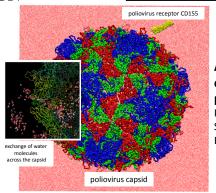
#### Weather simulation using the CReSS

Provided by Kazuhisa Tsuboki, Institute for Space-Earth Environmental Research (ISEE), Nagoya University

**High Speed Computation of Large Deformation** the Diffeomorphic Metric **Mapping of Abdominal Organs** Provided by Hidetaka Hontani, Department of Computer Science,

Corresponding points for Constructing Statistical Shape Model





#### All atomistic molecular dynamics calculation of poliovirus capsids

Provided by Yoshimichi Andoh and Susumu Okazaki, Graduate School of Engineering, Nagoya University



Information Technology Center, Nagoya University http://www.icts.nagoya-u.ac.jp/en/center/

