

## Nationwide Joint-use Systems

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

## HPCI

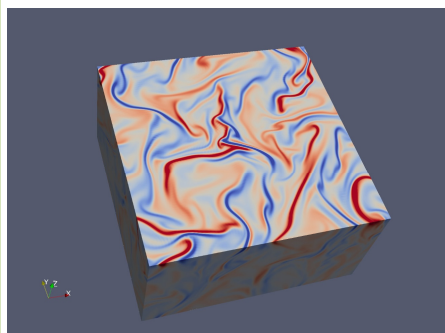
HPCI establishes a high performance computing infrastructure that consists of main supercomputers, such as "Fugaku", supercomputers in universities and institutes, with an academic network to satisfy wider requirements from users. The supercomputers in ITC, Nagoya University are also one of the HPCI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

## JHPCN

The Joint Usage / Research Center for Interdisciplinary Large-scale Information 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 the University of Tokyo.

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

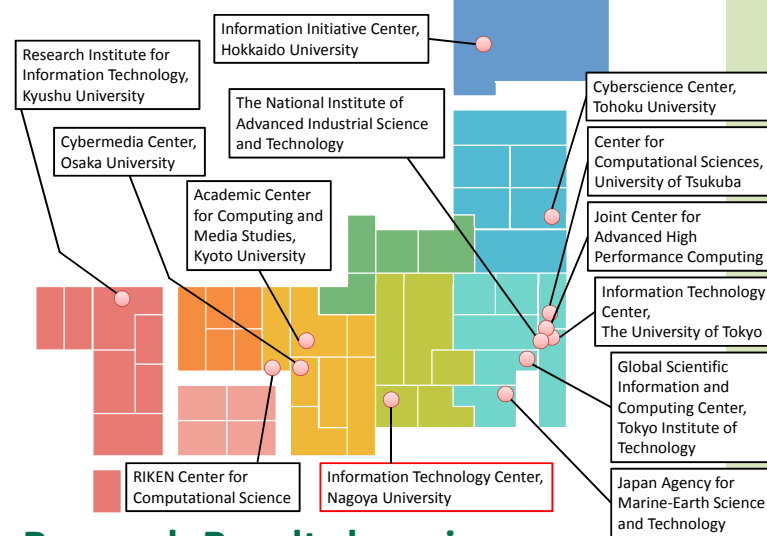
Interdisciplinary collaborative researches are performed with tightly collaboration between applicants and faculties of JHPCN centers.



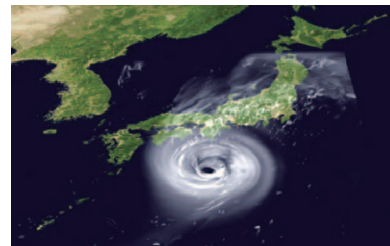
**Simulation of auroral turbulence in the magnetosphere-ionosphere coupling system**

Provided by TomoHiko Watanabe, Department of Physics, School of Science Nagoya University

## HPCI Resources



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

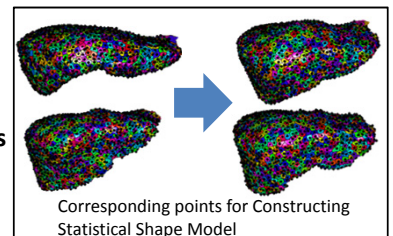


**Weather simulation using the CRESS**

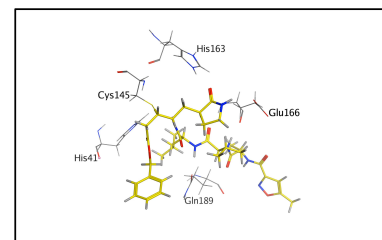
Provided by Kazuhisa Tsuboki, Institute for Space-Earth Environmental Research (ISEE), Nagoya University

### High Speed Computation of Large Deformation Diffeomorphic Metric Mapping of Abdominal Organs

Provided by Hidetaka Hontani, Department of Computer Science, Nagoya Institute of Technology



Corresponding points for Constructing Statistical Shape Model



### Fragment molecular orbital based interaction analyses on COVID-19 main protease

Provided by Yuji Mochizuki, Department of Chemistry, Rikkyo University

### Lung segmentation from CT volume with AI

Provided by Kensaku Mori, Department of Intelligent Science, Nagoya University

