Center for Research on Innovative Simulation Software

[Introduction]

http://www.ciss.iis.u-tokyo.ac.jp/

Advanced research on simulation software

Since January 2008

Purpose and Main theme of CISS

To conduct R&D on the advanced and practical computational science simulation software needed for the 21th century, we are collaborating with researchers within and outside the university while responding to the needs of the industry.

◆ Conducting world-leading advanced research on simulation software

◆ Disseminating R&D results to society

◆ Strengthening the educational foundation for training human resources capable of developing and using simulation software

Center Director

Chisachi Kato, Professor

Nobuhiro Yoshikawa, Professor

Fumitoshi Sato, Professor

Marie Oshima, Professor

Shinsuke Kato, Professor

Toshio Hatada, Project Professor

Takahisa Ohno, Visiting Professor

Fujihiro Hamba, Professor
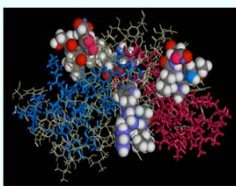
Yoshitaka Umeno, Associate Professor
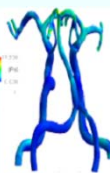
Yoshinori Shiihara, Research Associate

Katsuhiko Nishimura, Research Associate
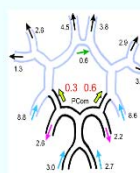

Life Simulation

The computational model of PSRC. The special pair and the residues affected by pigments were drawn by stick and CPK models, respectively
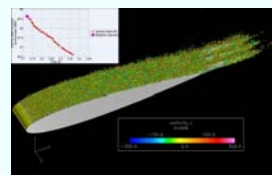
SATO, F. Lab.

a) Wall shear stress distribution   b) Distribution of flow rates

Blood flow simulation of multi-scale circle of Willis considering the effects of peripheral vessels
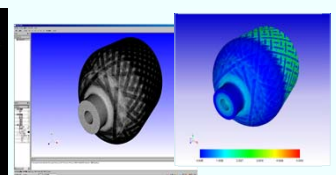
OSHIMA, M. Lab.

Multi-physics multiscale simulation

Plot showing the Pareto-set of optimal trade-off obtained for the serrated airfoil and a visualization of the vortical structures present around the airfoil
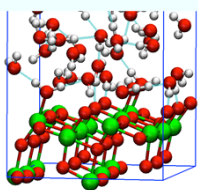
KATO, C. Lab.

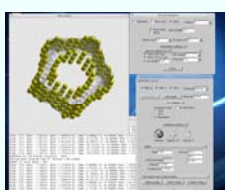Meso-mechanical strength evaluation of Filament Winding FRP Tank for Fuel Cell Vehicle

YOSHIKAWA, N. Lab.

Nano device simulation

Simulation System for urban Environment and Safety

Interfacial structures between photocatalytic materials and water: TiO_2/H_2O interface

Ohno, T. Lab.

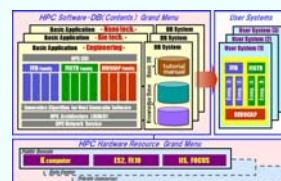A GUI based simulator for radial corrugation of multi-walled carbon nanotubes
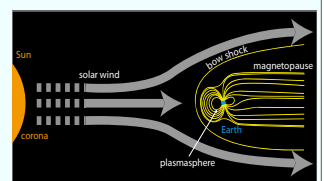
Umeno, Y. Lab.
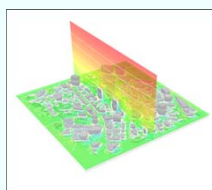
Hazardous Material Dispersion within City Blocks by means of Wind Flow Simulation

KATO, S. Lab.

Basic Structure and Application Scheme for Multipurpose HPC/PF

HATADA, T. Lab.

Solar wind and Earth's magnetic field

HAMBA, F. Lab.

Institute of Industrial Science