

## Framework of IFERC-CSC and the present situation of HELIOS

Yasutomo Ishii

JAEA

The supercomputer, named “HELIOS/Roku-chan”, was installed in the IFERC-CSC (International Fusion Energy Research Centre-Computational Simulation Centre) in Rokkasho village on Dec. 2011, according to the BA (Broader Approach) agreement between JA and EU. The performance of HELIOS is 1.237Pflops in LINPACK benchmark (1.524Pflops in peak performance) and HELIOS was ranked as the 12<sup>th</sup> powerful supercomputer in the world (the 2<sup>nd</sup> powerful one in Japan) by TOP500 at June 2012. The IFERC-CSC is a part of IFERC PT (Project Team) and managed by the CSC leader from EU and deputy CSC leader from JA. The IFERC-CSC operates HELIOS and provides support for JA and EU users. Operation of HELIOS was started from Jan. 2012. From January to March in 2012, it was an initial operation phase of HELIOS and HELIOS was opened only for limited users belonging to 4 research projects selected as “Lighthouse Project”. Normal operation of HELIOS started from April 2012 and HELIOS was opened to all approved users belonging to JA and/or EU research projects. At the present time (Oct., 9<sup>th</sup>, 2012), 282 scientists have accounts on HELIOS. Research projects submitted by JA or EU scientists to the international selection quota are evaluated and selected by the Standing committee (StC), which consists of each 5 members from JA and EU. Research projects submitted to JA 10% quota or EU 10% quota are selected by each party according to its own policy. The first cycle of the international selection quota is finished at Nov. 14<sup>th</sup> 2012, and the second one starts from Nov. 15<sup>th</sup> 2012 and will end at Nov. 14<sup>th</sup> 2013. The number of users and research projects are increased in the 2<sup>nd</sup> cycle compared with those in the 1<sup>st</sup> one. In the beginning of the normal operation phase, the operation rate was low and the maximum of it was about 62% till the middle of July. This low operation rate are presumed to be caused by some system troubles and lack of user’s experience on HELIOS. However, from the middle of July, the operation rate of HELIOS began to increase and achieved to 91%. After the middle of August, the operation rate has been kept almost more than 80%.