

Neutrinos from Accelerator in the KISTI-5 supercomputing era

Monday 26 August 2019 19:00 (2 hours)

In November 2018, KISTI-5 supercomputer has launched. It is the heterogeneous machine of 25.3 PF Cray 3112-AA000T with Intel Xeon Phi KNL (Knight Landing) 7250 processor which has 68 cores per processor. The goal of this presentation is to discuss the application and usages of Intel KNL-based system of KISTI-5 supercomputer for neutrinos from accelerators.

First, the world is made of dark energy, dark matter and the Standard Model particles. The Standard Model is the last frontier of universe. Evolving universe is towards a unified description of the nucleus. Let us show some of potential works –physics beyond the Standard Model, simulation, evolving universe and so on.

Second, the Standard Model in particle physics is refined. However, new physics beyond the Standard Model, such as dark matter, requires thousand to million times of simulation events compared to those of the Standard Model. Thus, the development of software is required. Let us show the current status and future plan for these.

Working Group

WG3 : Accelerator Physics

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