Operational Report and use-case of New Polar Science Computer System

Masaki Okada[1]

[1]*National Institute of Polar Research*

Polar Science Computer System（PSCS）has started its operation since Feb. 2020, and is a dedicated computer system for computer simulation, modeling as well as data analysis and data accumulaton for polar science.

New PSCS consists of 3 major systems. One is the front-end system, which serves as a login-node for the system and a back-up node. The second is the computation system, which include 18 nodes of Intel Xeon computational CPUs. The third is the file system, which supports 1.18 Peta Byte of disk storage capacity. These systems are connected by the Infini-Band network whose speed is 100 Gb/s. The whole system is opened to the users via the science network, SINET5.

Figure 1 shows the system which installed in the computer room on B1 floor in Tachikawa campus, NIPR. Two racks include 18 computational nodes in the rack of the left side and 1PB of disk space mounted in the rack of the right side.

Figure 2 shows the usage monthly report of PSCS since Feb. until Mar. 2020. The job classes P1, P2, P4 and P8 indicate the number of nodes which can be used with each job, respectively. Total ratio of usage is from around 70% to 80% every month.

New way of usage, such as largescale data analysis using DB and/or data analysis using AI technology will be presented.

Figure 1. System under operation of the new PSCS.　　Figure 2. System usage report since Feb. until Mar. 2020.