Performance measurement of plasma kinetic simulation codes on the Flow supercomputer system at Nagoya University

*Takayuki Umeda[1]

1. Institute for Space-Earth Environmental Research, Nagoya University

A new supercomputer system "Flow" is installed in July 2020 at Nagoya University. The Flow type I system has the same architecture as the "Fugaku" supercomputer in Japan, which is the fasterst in the world as in the top500 November 2020 ranking. The present study makes a performance measurement of two plasma kinetic simulation codes, i.e., two (and half) dimensional full Vlasov and full particle-in-cell codes. The performance on the Flow type I will alo be compared with the performance on other CPUs such as Xeon and Epyc processors.

Keywords: numerical simulation, performance , kinetic code

