

Visualization technique of NICT Science Cloud using large quantities of magnetosphere Global MHD simulation data

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We will present a new visualization technique by using large quantities of simulation data. The time development of 3D object with high temporal resolution provides the opportunity of scientific discovery. We visualize large quantities of simulation data using visualization application 'Virtual Aurora' based on AVS and the parallel distributed processing at 'Space Weather Cloud' in NICT based on the Gfarm technology. We show a visualization of dayside reconnection using a system of magnetic field line tracing in order to understand magnetosphere convection. On the other hand we try to make a computer graphics of magnetosphere dayside reconnection for outreach activities. In this lecture, we introduce our recent visualization for science and outreach activities.

Keywords: Visualization, NICT Science Cloud, Big simulation data, Magnetosphere