

# Development of Web Based Visualization System for a Simulated Earth's Magnetosphere

Satoko Saita<sup>1</sup>, Takashi Tanaka<sup>2</sup>, Shigeru Fujita<sup>3</sup>, Yoshimasa Tanaka<sup>4</sup> and Akira Kadokura<sup>4</sup>

<sup>1</sup>*National Institute of Technology, Kitakyushu College, Japan*

<sup>2</sup>*International Center for Space Weather Science and Education, Kyushu University*

<sup>3</sup>*Meteorological College*

<sup>4</sup>*National Institute of Polar Research*

In order to understand the magnetosphere-ionosphere (M-I) coupling process, we executed magnetosphere-ionosphere coupling global MHD simulation called REPPU (REProduce Plasma Universe) code. During the investigation of the simulated magnetosphere-ionosphere system, it is necessary to identify the status of the magnetosphere-ionosphere system. For example, if a substorm occurred, we have to analyze on three phases of substorm, the growth phase, the expansion phase, and the recovery phase, respectively.

To visually recognize the status of the magnetosphere-ionosphere system, we designed a web-based visualization system. Our visualization system is finished by using Web 3D technique—WebGL in process of building and analysis, which can display topology clearly.