

Study on visualization of large numerical simulation data of planetary atmosphere using web map technology

Kazuki Matsumura¹, *Ko-ichiro SUGIYAMA¹, Kuriki Murahashi², Masaki Ishiwatari², Yoshi-Yuki Hayashi³

1. National Institute of Technology, Matsue College, 2. Hokkaido University, 3. Kobe University

In recent years, a large amount of numerical simulation data has been generated by numerical calculations using a supercomputer. When analyzing the data, it is desirable to be able to pan and zoom large images created using numerical simulation data very smoothly. Our aim to develop a visualization tool using web map technology in the field of planetary science. Using web map technology, large images can be panned and zoomed very smoothly. Our newly defined “numerical data tile” in which the numerical value of each grid corresponds to RGB value of each pixel makes it possible to change the color tone of the image and perform simple data analysis on a browser. In addition, our tool can make animation of physical quantities between the time axis and coordinate axis directions using our newly extended directory tree for processing 4D data. In this presentation, we explain and demonstrate our tool.

Keywords: visualization tool, Numerical simulation data, Web map technology