Visualization in the spherical geometry

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Since geoscientific computer simulations are usually carried out in spherical geometries, researchers are eager to improve and invent computational grid systems in the spherical geometry. On the other hand, the visualizations for those kinds of data are almost untouched. With the increasing computer performance, the output data are getting larger and larger and it makes visualization in the spherical geometries more difficult. We have developed parallel visualization software using MPI for the spherical geometries. With these programs, researchers can directly visualize their data in the spherical geometries without converting them into the rectangular grid. We have developed two kinds of programs. One is for the spherical polar coordinates and another is for the YinYang grid [1]. These programs are based upon MovieMaker [2,3].

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