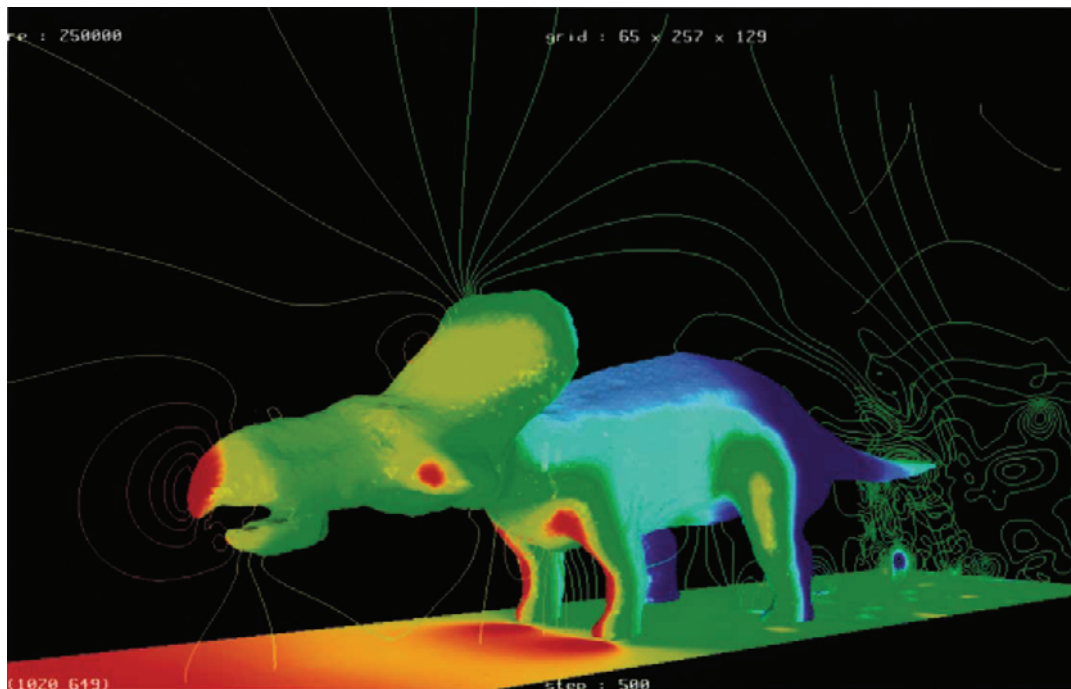## 1. Flow around a Protoceratopus

Kuwahara, K.[1]

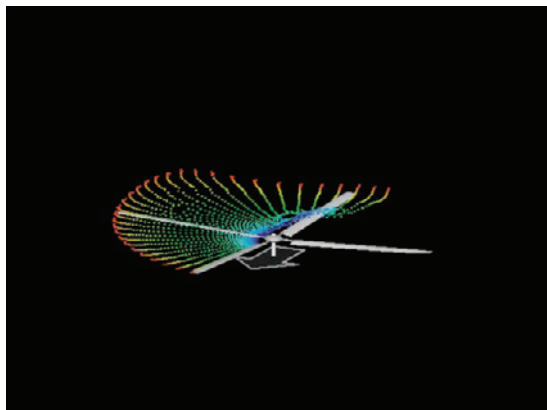1) *Institute of Space and Astronautical Science Sagamihara, Kanagawa 229-8510, Japan.*

Flow around a complicated shape is very difficult because of the grid generation. In the present approach we used a Cartesian coordinate system with equal spacing for the three directions. Inside the body the velocity components are simply set to be zero. The Navier-Stokes equations are directly solved by a finite-difference method without using any turbulence model at Reynolds number 250 000. The number of the grid points is $64 \times 257 \times 129$. The pressure distribution on the surface of the body and the ground is visualized by shading. Also the pressure contour lines in the central plane and in a plane perpendicular to the flow direction are drawn. The computation was performed on DEC alpha based single CPU personal computer ALEPH533.

2. Numerical Simulation of Flowfield around Helicopter Rotor by Moving Overlapped Grid Method
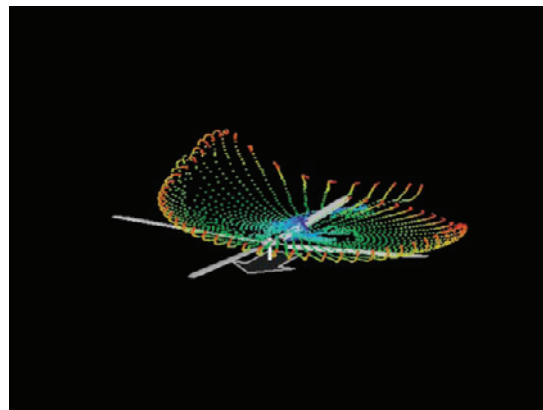
Ochi, A.[1], Aoyama, T.[2], Shima, E.[1], and Saito, S. [2]

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2.1

2.2