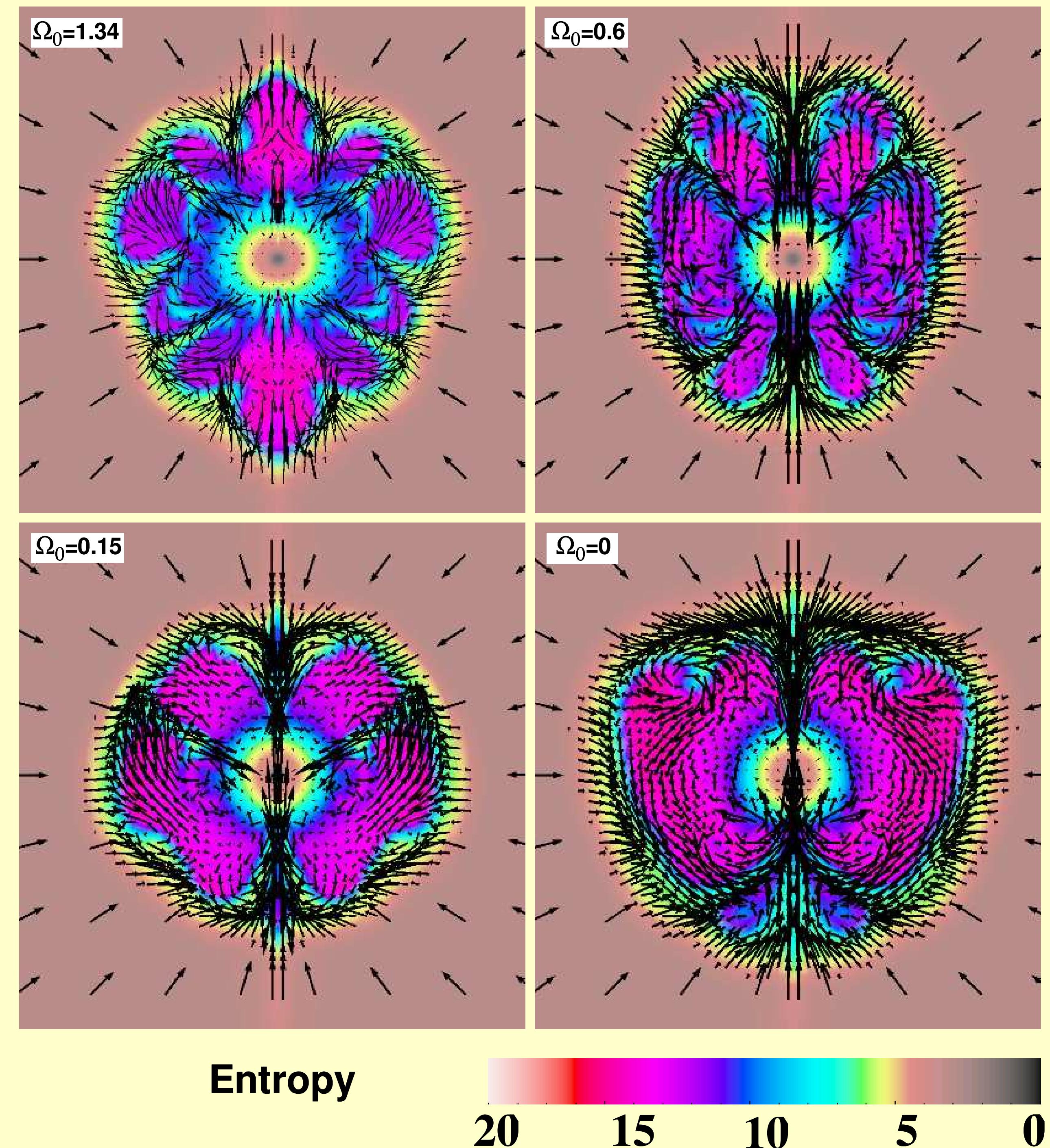


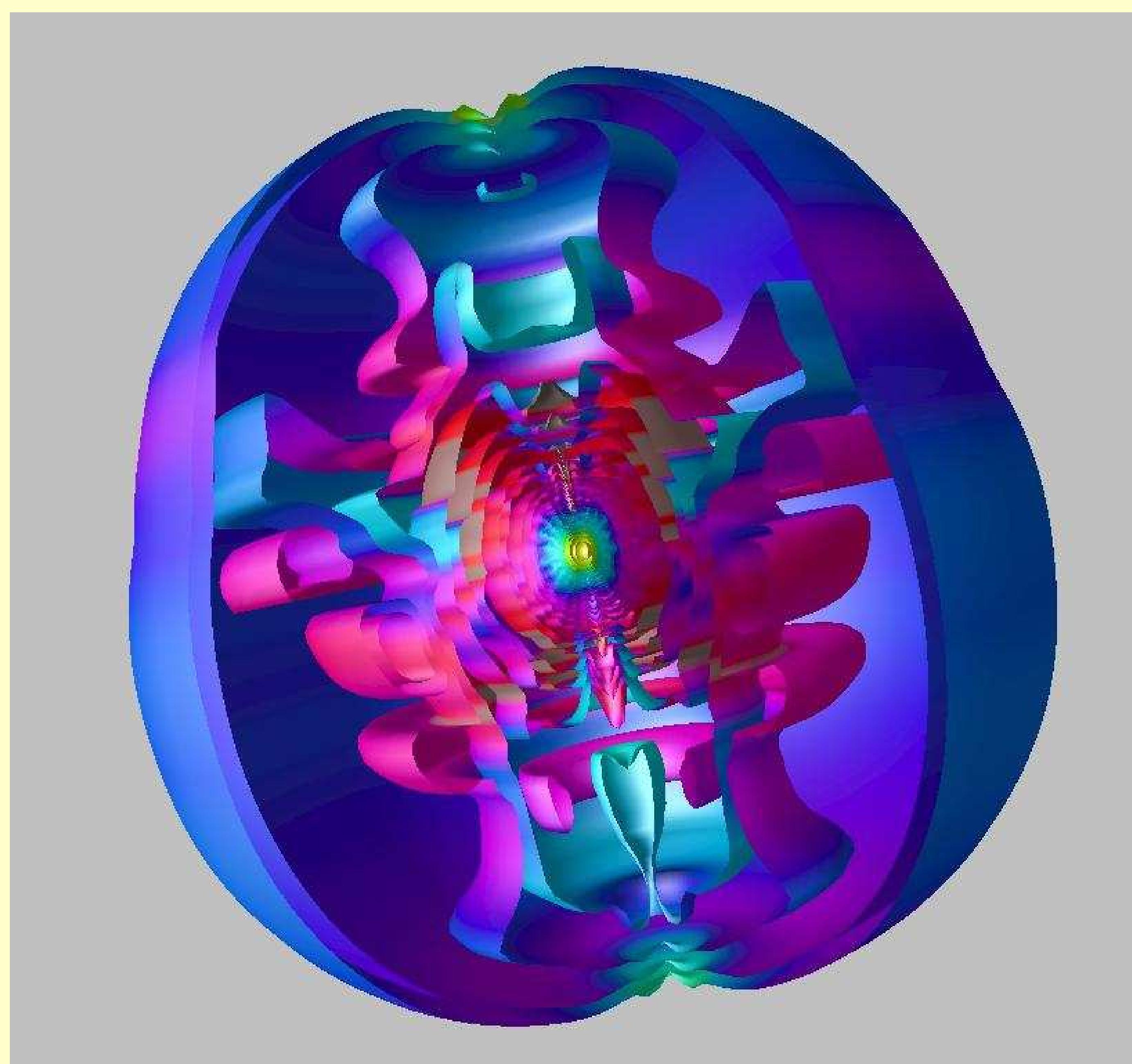
Supernova Science Center (SNSC): U. of Arizona

Adam Burrows, Luc Dessart, Jeremiah Murphy, Christian Ott, Eli Livne, Rolf Walder

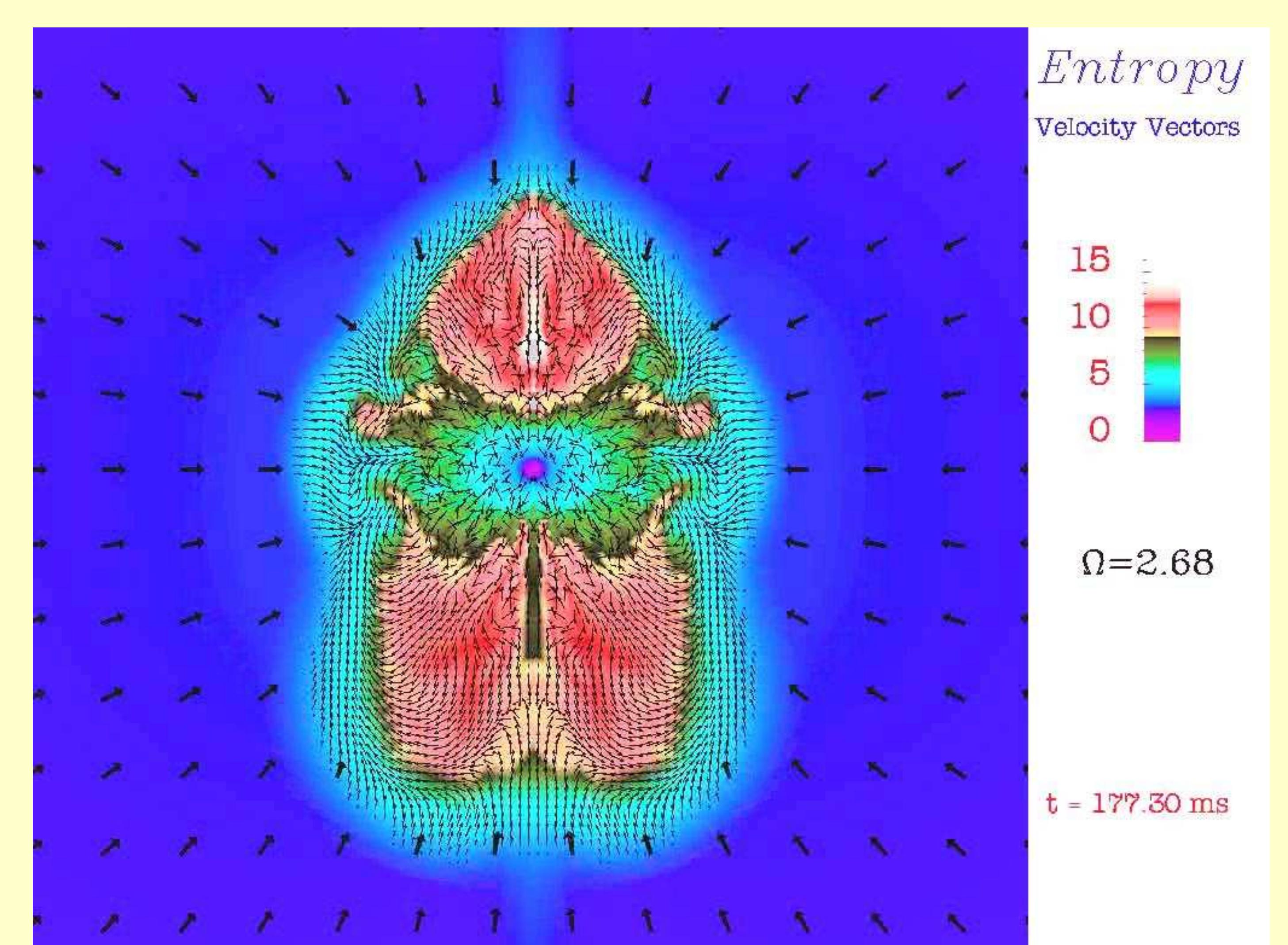
2D MGFLD: Plumes, Rotation



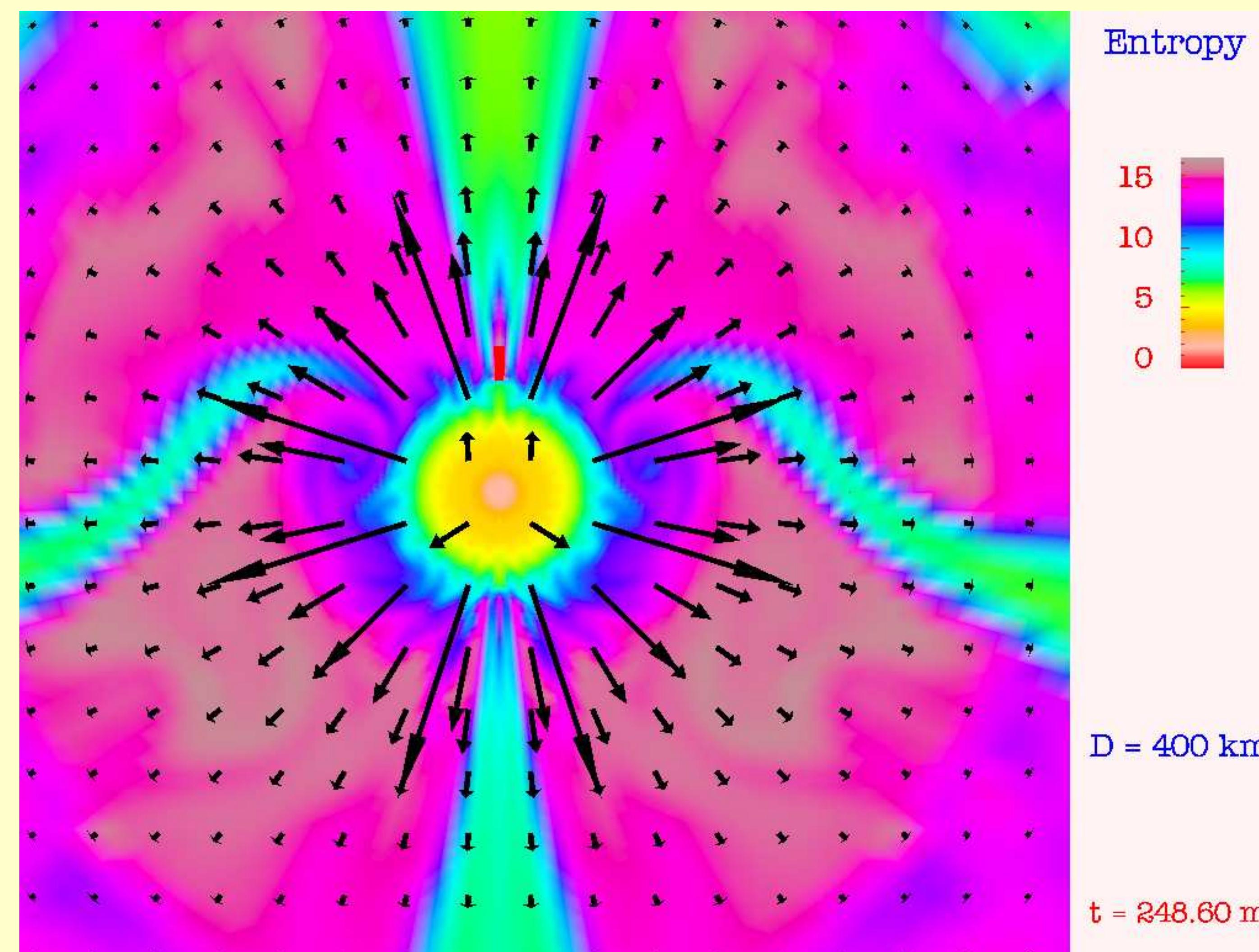
Multi-D Explosion



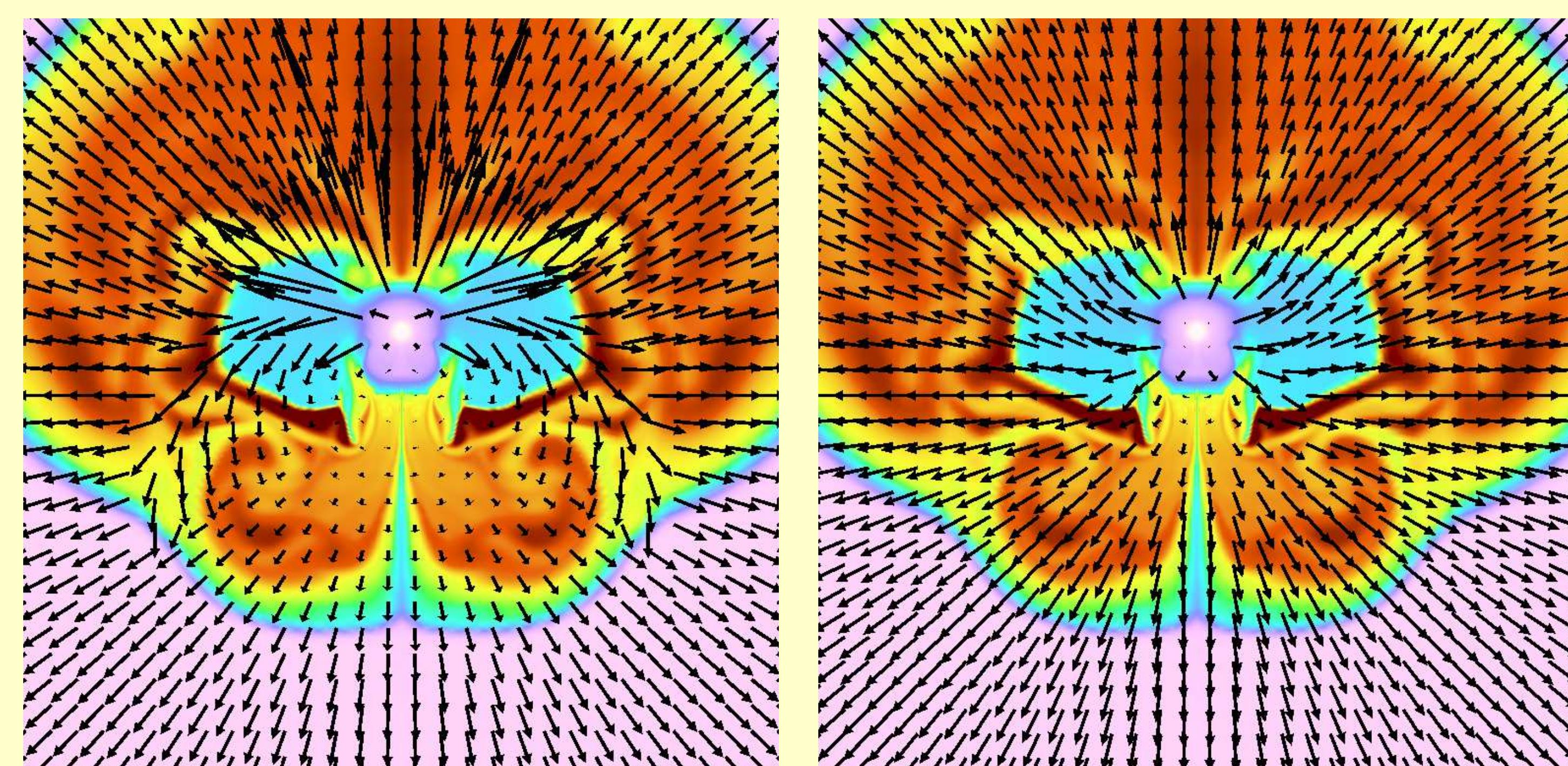
Dipole Asymmetry: Kicks?



2D Neutrino Flux Vector Field



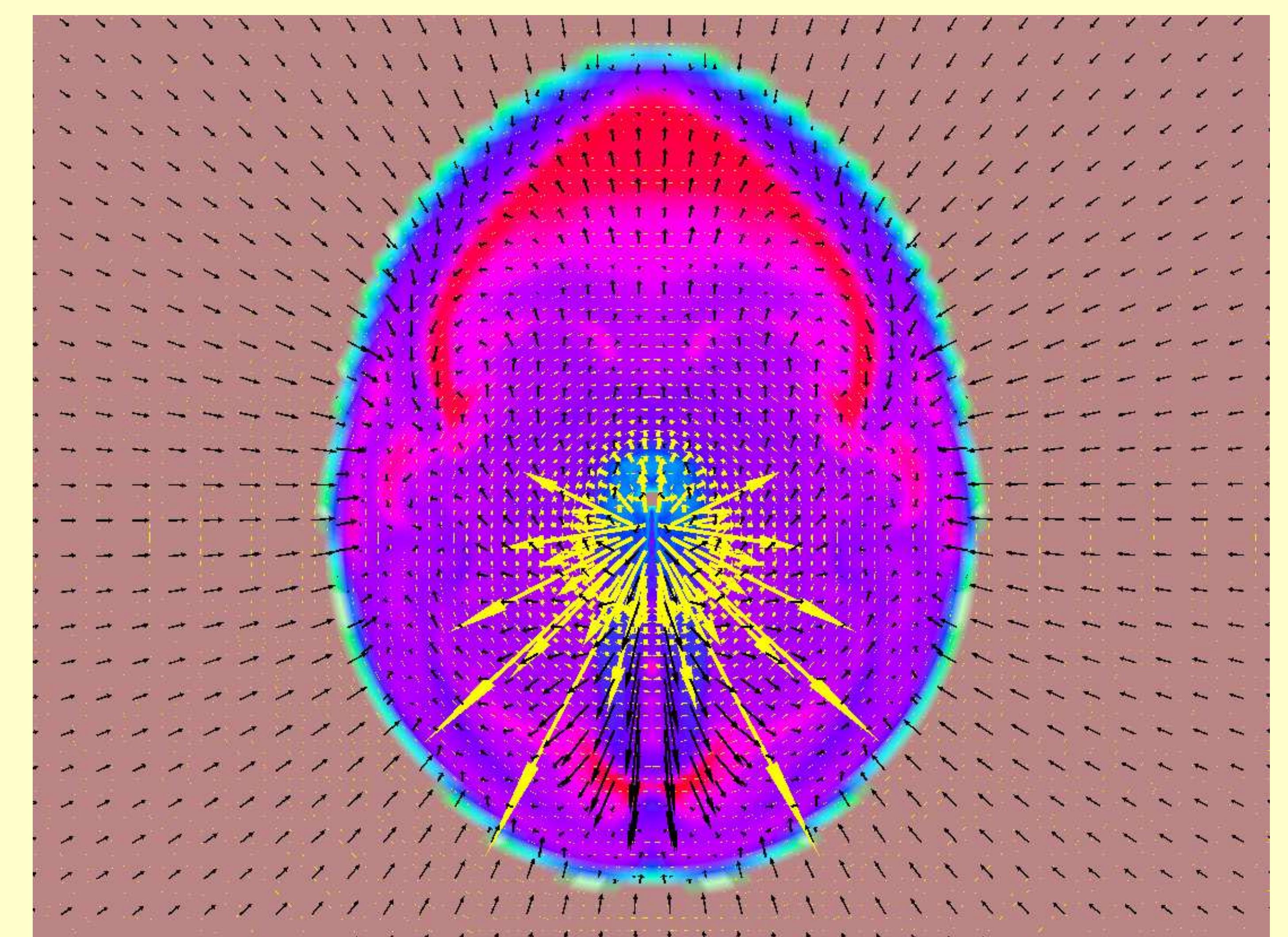
$\bar{\nu}_e/\nu_e$ Neutrinos, Winds



Major Accomplishments:

- VULCAN/2D: First Fully Dynamical 2D, Multi-Angle, Multi-Energy-Group Calculation in Core-Collapse Supernova Theory
- First 2D Radiation/Hydrodynamic Calculation of Core Collapse with Multi-Group Capability and Rotation ("2.5-D")
- First Multi-Energy-Group Study of the Angular Anisotropy of Neutrino Flux due to Rotation and Convection
- First Multi-Group Supernova code that allows Inner Core Motion
- Cutting-edge calculations of the Gravitational Wave signatures of Core-Collapse Supernovae
- SESAME: Precision 1D dynamical core-collapse simulator. Fully Implicit 1D (Spherical), multi-energy-group, multi-angle, multi-species Boltzmann neutrino transport code using the variable Eddington factor technique and the tangent-ray method. Accelerated Λ iteration (ALI) is used to speed convergence and energy redistribution is included.
- Runtime and Execution Infrastructure: Extensions of CORBA, DEVS-DOC (Arizona ACIMS)

Jets and Neutrino Rockets?



Rotational Funnels/Bipolarity

