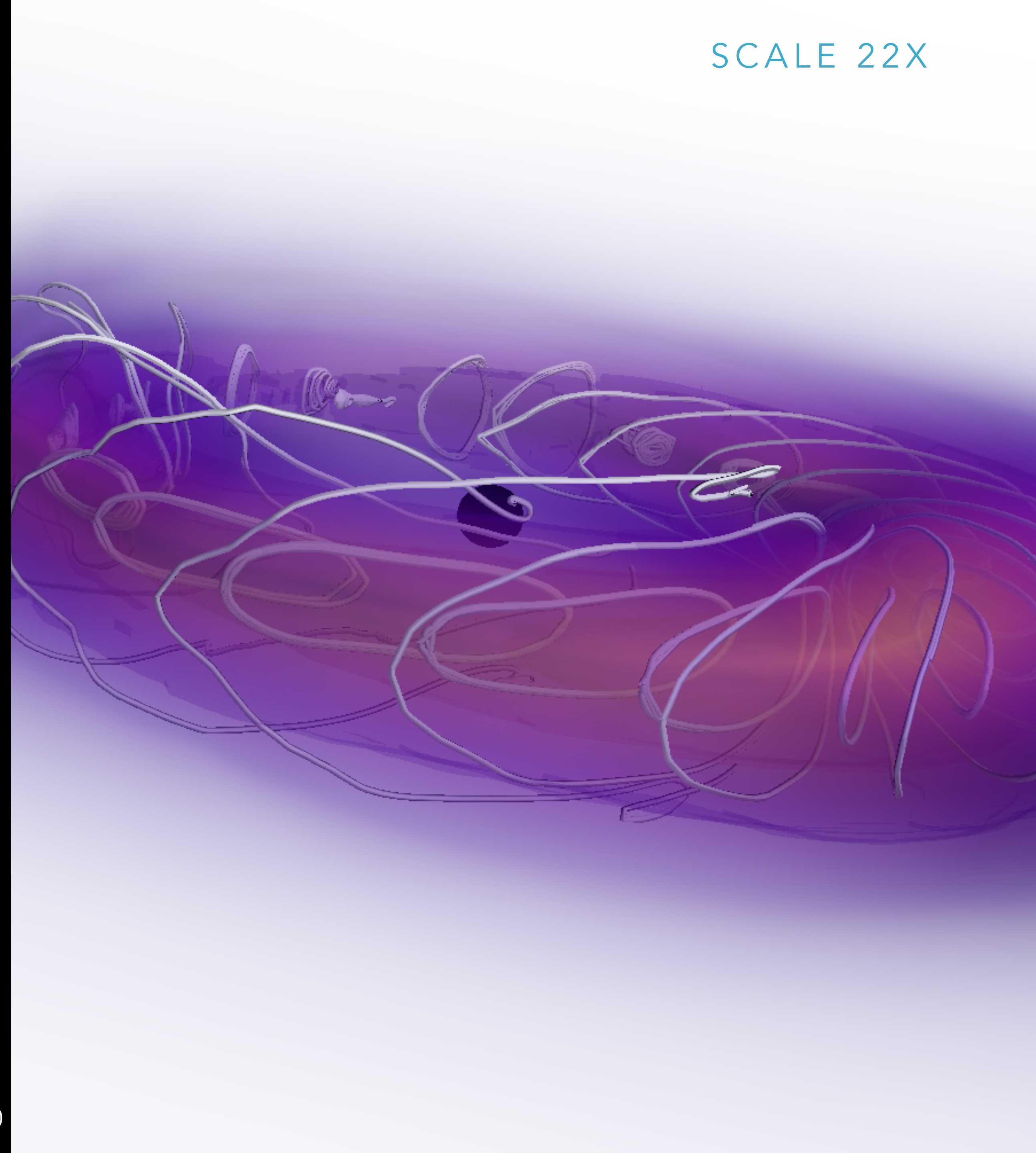
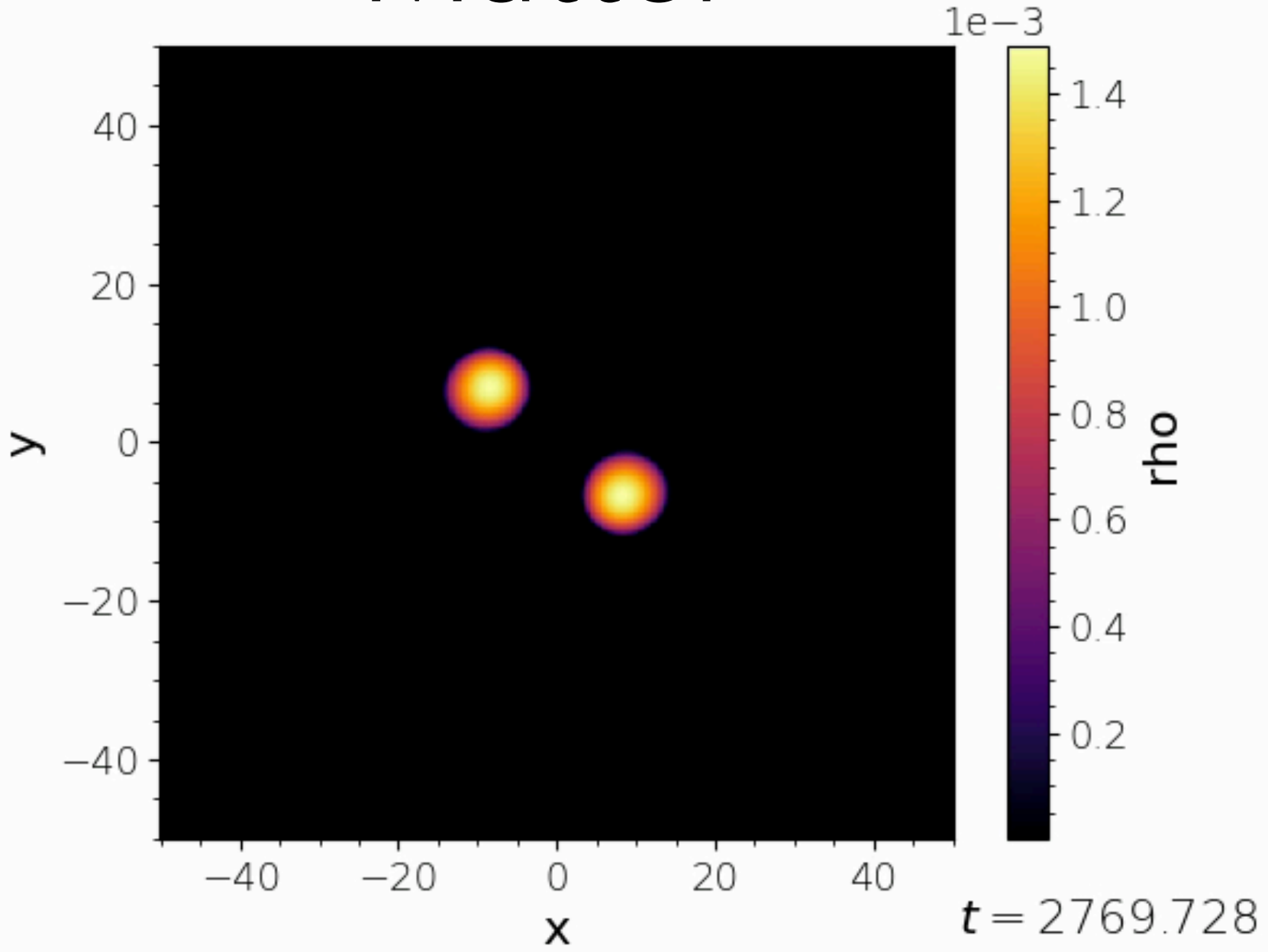


NUMERICAL RELATIVITY

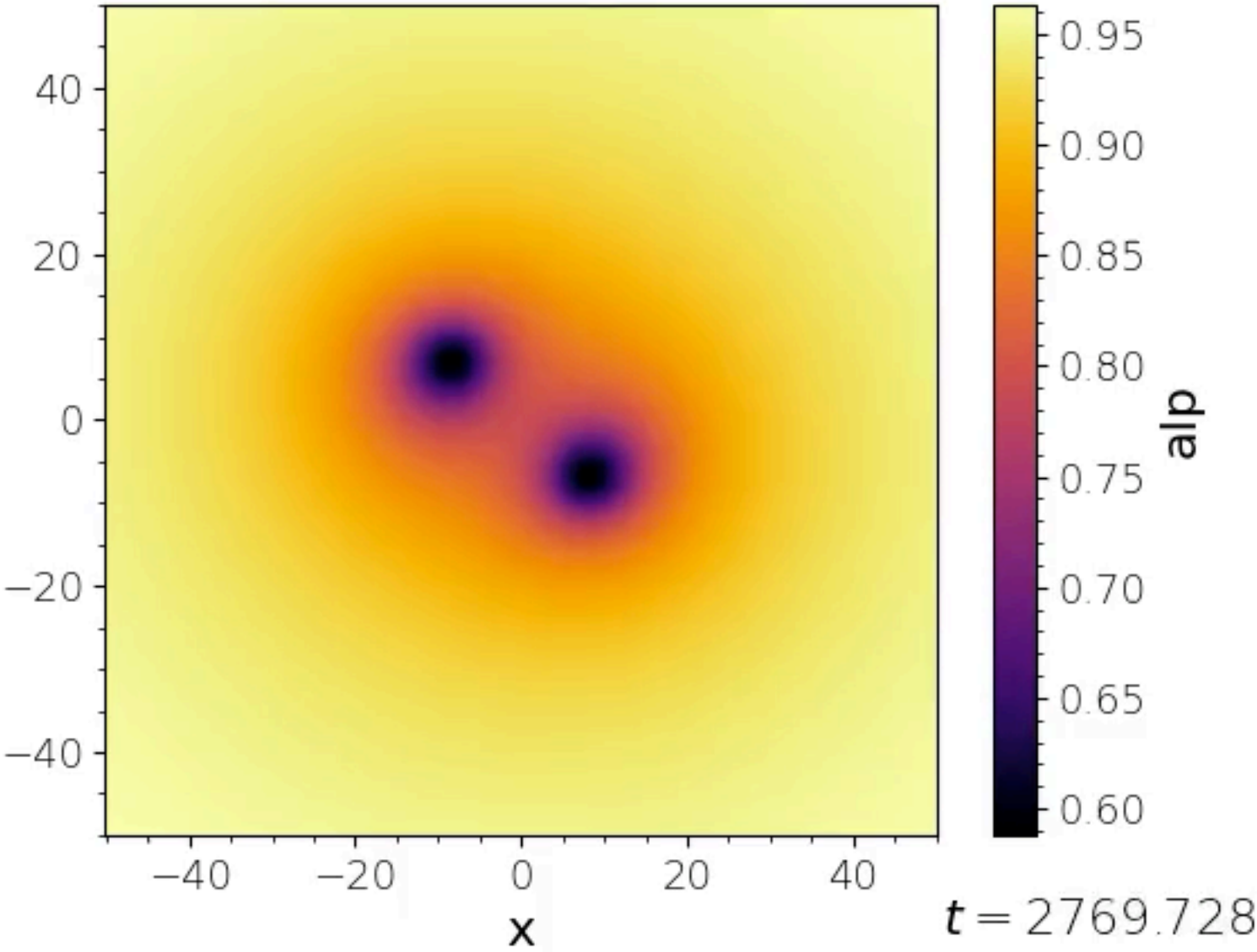
- We **don't** just add new forces to CFD codes
- Must use *relativistic* equations for gasses, radiation, etc.
- Generalize all geometry to dynamical curved spacetime: vectors, tensors, volumes, derivatives,...
- Solve Einstein's equations to determine spacetime curvature



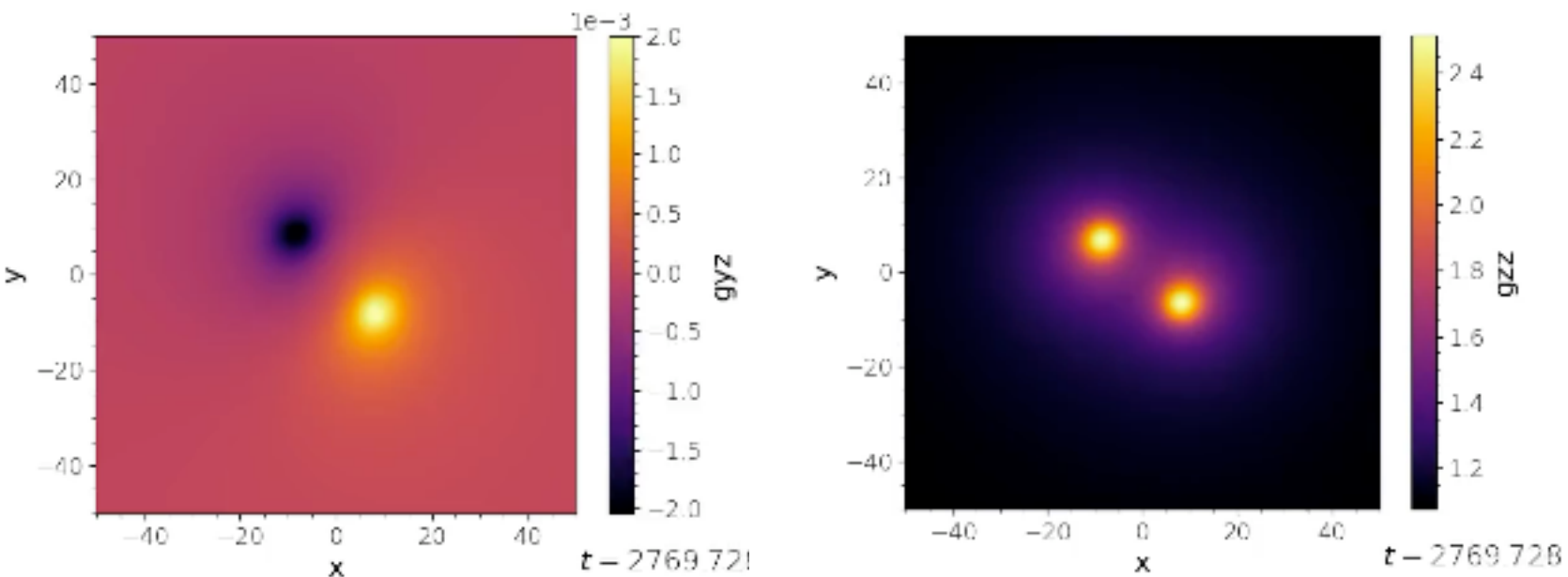
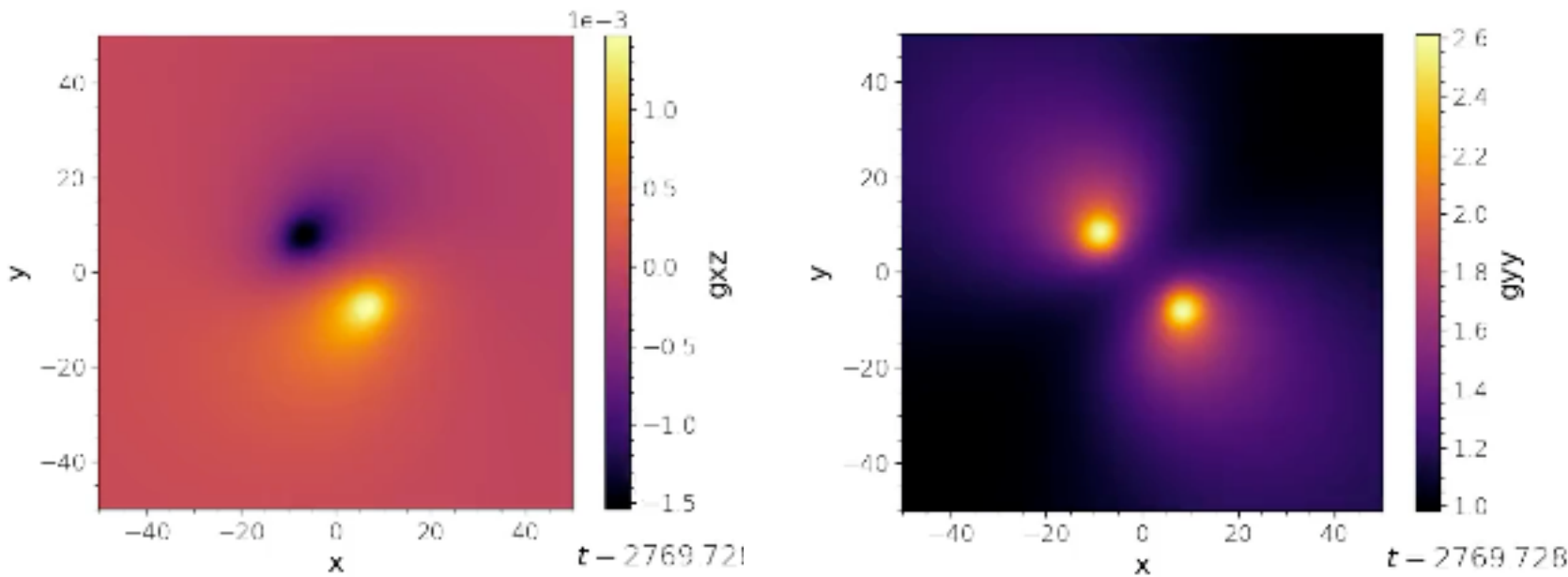
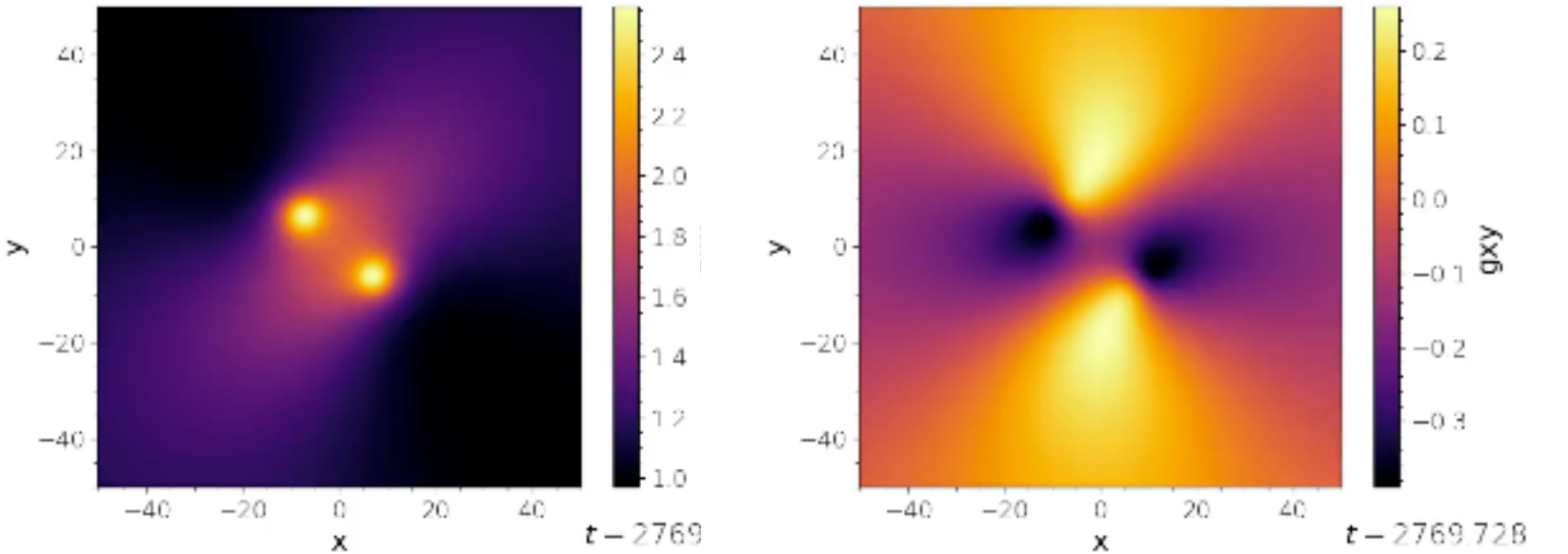
Matter



Lapse



Slice metric



Shift vector

