

## Simulating the Orszag-Tang vortex using RSPH

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The formation of the compressible Orszag-Tang vortex has become a standard test for multi-dimensional MHD codes. In the present work, the problem is studied using the Lagrangian method Regularized Smoothed Particle Hydrodynamics (RSPH). First, a brief introduction to RSPH is given together with the model equations. Then, test results are presented, both for the case of uniform and non-uniform resolution. The results fit well with earlier results and indicate that RSPH might be a fully competitive, Lagrangian alternative to traditional grid-based methods for this type of problem.

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