

Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Numerical relativity with the new Nmesh code¹ WOLFGANG TICHY, ANANYA ADHIKARI, LIWEI JI, Florida Atlantic University — We introduce the new open-source Nmesh code, which is intended to efficiently run on large supercomputers to solve challenging relativistic astrophysics problems such as binary neutron star mergers. The aim of Nmesh is to achieve more accurate solutions by using a discontinuous Galerkin method. We explain the basic computational and parallelization methods we use. We also present first results for test problems such as shock tube tests, and simulations with single neutron stars and black holes.

¹We acknowledge support from NSF PHY-1707227

Wolfgang Tichy
Florida Atlantic University

Date submitted: 07 Jan 2020

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