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Implementation and Analysis of 4^{th} Order CWENO Reconstruction for use in Relativisitic MHD Simulations[1] NICHOLAS NELSON, DAVID NEILSEN, Brigham Young University — Relativistic magneto-hydrodynamics (RMHD) is used to model astrophysical systems with magnetic fields. Numerical simulations in RMHD require high accuracy to efficiently resolve the complex features expected in the solutions. We discuss an implementation of a central 4th order CWENO method for RMHD. Preliminary results of standard test problems, including comparisons with an established CENO scheme, will be presented and discussed.

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