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Adaptive Wavelets Methods in Numerical Relativity ERIC HIRSCHMANN, Brigham Young University, MATT ANDERSON, Indiana University, DAVID NEILSEN, Brigham Young University, JACKSON DEBUHR, BO ZHANG, Indiana University — Adaptive, multiresolution wavelet methods are a promising approach to obtaining robust spatial grid adaptation. Developed over the last couple of decades in the computational fluid dynamics community, we examine the applicability and utility of such methods in relativistic settings, in particular relativistic magnetohydrodynamics. We will attempt to demonstrate their good properties relative to robustness, efficiency and parallelizability.

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