

Abstract Submitted
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SpECTRE Cauchy Characteristic Evolution JORDAN MOXON,
MARK SCHEEL, SAUL TEUKOLSKY, Caltech — I present advances and early
results from the Cauchy Characteristic Evolution (CCE) development in SpEC-
TRE. We have developed a number of mathematical refinements of the CCE system
that improves spectral convergence and eases the computation of detailed dynamical
spacetime information at scri+. The result is an efficient code, free from logarithmic
pathologies, that rapidly computes full waveform information: news, strain, and all
five Weyl scalars. I summarize the performance improvements in the SpECTRE
implementation, highlighting key numerical techniques, and describe the battery of
physical tests used to verify the precision of our CCE results.

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