Adaptive mesh refinement in SpECTRE[1] LAWRENCE KIDDER, Cornell University, SIMULATING EXTREME SPACETIMES COLLABORATION — We provide an update on the development of adaptive mesh refinement within SpECTRE (https://github.com/sxs-collaboration/spectre), an open-source relativistic astrophysics code that combines a discontinuous Galerkin method with a task-based parallelism model. SpECTRE's goal is to achieve more accurate solutions for challenging relativistic astrophysics problems such as core-collapse supernovae and binary neutron star mergers, while making efficient use of the largest supercomputers.

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