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Progress toward the first simulations of binary black holes holes with SpECTRE¹ GEOFFREY LOVELACE, California State University, Fullerton, SIMULATING EXTREME SPACETIMES (SXS) COLLABORATION — Numerical-relativity calculations of binary black holes are crucial tools for modeling and interpreting gravitational-wave observations. Future gravitational-wave observatories on Earth and in space will require waveform models that are much more accurate than numerical relativity can currently achieve. SpECTRE is a next-generation numerical-relativity code that aims to achieve much greater accuracy than is possible today, by employing techniques such as adopting a Discontinuous Galerkin method and task-based parallelism. In this talk, I will discuss progress toward SpECTRE's first simulations of merging black holes.

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Geoffrey Lovelace California State University, Fullerton

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