Comparing gravitational-wave memory waveforms[1] KEVIN CHEN,
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BARKETT, MARK SCHEEL, Caltech — The nonlinear or Christodoulou memory
is a non-oscillatory contribution to the gravitational-wave signal that arises from the
gravitational-wave stress energy tensor. Extracting the nonlinear memory from nu-
merical relativity simulations has proven challenging, except via the use of Cauchy
Characteristic Extraction (CCE). We perform a comparison study of memory wave-
form modes computed via two methods: the CCE technique and a semi-analytic
approach that uses oscillatory (non-memory) waveform modes as input.

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