

Towards a weak-field hybrid 2PA waveform model.

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While it is well accepted that generic EMRI waveform models must be fully relativistic, early ‘kludge’ waveform models often relied on weak-field (and other) approximations. Kludges were created in the absence of fully relativistic EMRI models to inform the science case for LISA. While it may be hoped that generic adiabatic self-force models are right around the corner, the same cannot be said for generic 1PA self-force models in the short term. In this talk we will present progress towards a generic 2PA hybrid model motivated by: 1) The need for an updated generic EMRI model suitable for LISA preparatory studies. 2) The requirement for a model that qualitatively captures the leading 2PA error when truncating waveform models to 1PA order. 3) Improving our understanding of how to map between self-force and Post-Newtonian dynamics including generic spin effects.

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