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Following Eric's footsteps down the rabbit hole of the two body problem

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I highlight some of Eric's seminal contributions to our understanding of the two body problem in general relativity, from the 1990s at Caltech until today, and use them as a springboard for a discussion of two recent research directions. The first is the development of general methods to define and derive coarse-grained variables to describe the motion of macroscopic bodies, valid in contexts with nonlinear self-interactions. These methods are complementary to the methods of effective field theory, and build off earlier formalisms in the linear context by Detweiler and Whiting and by Harte. The second is an effort to understand in what regimes the dynamics of a two body system can be uniquely and/or usefully split into a conservative, Hamiltonian sector and a dissipative sector.

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