

Abstract Submitted
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Finding Fields and Self-Force in a Gauge Appropriate to Separable Wave Equations I LARRY PRICE, University of Wisconsin-Milwaukee, TOBIAS KEIDL, DONG HOON KIM, JOHN FRIEDMAN, EIRINI MESSARITAKI, ALAN WISEMAN — Gravitational radiation from the inspiral of a stellar mass sized black hole into a supermassive rotating black hole is an important candidate for detection with the proposed Laser Interferometer Space Antenna. A complete and self-consistent description of the motion of the particle requires knowledge of the gravitational self-force. We report progress on computing the self-force from a method based on regularizing solutions to the Teukolsky equation. In this talk, we focus on describing the general procedure for computing the self-force in the Kerr spacetime.

Larry Price
University of Wisconsin-Milwaukee

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