

Motion of spinning test particles in black hole space-times

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Many interesting gravitational-wave sources can be effectively described in a large-mass ratio expansion. The leading effect of the lighter secondary in such sources can be read off from the dynamics of a spinning test particle in the space-time of the heavy primary. I will discuss the integrability and exact solution of motion of spinning test particles in black hole space-times, focusing on bound motion but also mentioning some results on scattering.