

Abstract Submitted
for the APR16 Meeting of
The American Physical Society

Tail Effects in Gravitational Wave Fluxes for Generic Eccentricity

NICHOLAS LOUTREL, NICOLAS YUNES, Montana State University — Gravitational wave tail effects result from the scattering of waves off of the spacetime curvature of the system that produced them. These tails modify the energy and angular momentum fluxes carried by gravitational waves to spatial infinity. The tail contributions to the fluxes have proven to be difficult to calculate analytically for generic eccentric orbits, with analytic results only available for binaries with small eccentricity. In this talk, I will describe a new technique that allows us to re-sum the tail enhancement factors for binaries with generic eccentricity by using the uniform asymptotic expansion of Bessel functions.

Nicholas Loutrel
Montana State University

Date submitted: 10 Dec 2015

Electronic form version 1.4