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The breakdown of the orbit-averaging approximation in Eccentric Binaries SAMUEL LIEBERSBACH[1], NICHOLAS LOUTREL[2], NICOLAS YUNES, NEIL CORNISH, eXtreme Gravity Institute - Montana State University
— As gravitational waves are generated in a binary, energy and angular momentum are carried away, forcing the eccentricity of the system to decrease. In order to characterize this evolution in eccentricity two methods are generally used: one involves averaging the change in certain orbital elements over one orbital period, while the other does not employ this averaging and uses multiple-scale analysis instead. In this talk, I will describe these methods and explain why they yield different answers for the evolution of the eccentricity of a binary in the late stages of inspiral.

[1]I was the second author, and Nick was the first author. However, I will be presenting the project.
[2]Nick was the first author on the paper, but he will not be the presenter.

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