

Graduate Seminar

**Leigh Herman
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**Thursday, March 5, 2020
A-1046, 1-2pm**

Gravitational Waves: Separating fact from fiction

Abstract:

This talk is going to introduce laser interferometry and the mathematical models we develop to distinguish a real gravitational wave signal from noise. Following this introduction I will discuss the construction of extreme mass ratio binary black hole collision models. This discussion will cover perturbative gauge and coordinate choices, discussion of black hole boundaries, spherical harmonic expansion of the metric, choices of initial data and numerical techniques to construct simulations.