

In the first part of my lectures I will give an introduction of the interaction of gravitational waves with interferometric detectors and how they are measured. Then the basic tools of matched-filtering and parameter estimation will be introduced, bridging the gap between theoretical modelling and actual searches in the data, with an overview of the LIGO results.

Finally I will show how the modelling of two body dynamics is done in the effective field theory language, as an exercise I will derive the Einstein-Infeld-Hoffman potential.