

We apply modern quantum field theory methods to calculate observables in classical general relativity through a truncation to classical terms of the multi-graviton two-body on-shell scattering amplitudes between massive fields. We show how to use this quantum field theoretic approach to compute post-Newtonian contributions to two-body gravitational potential, and the bending angle between two massive objects. We show how to reproduce known results for the post-Newtonian expansion in the probe regime.