

# Post-Newtonian General Relativity and Gravitational Waves, part IV

*Friday, 28 July 2023 12:20 (45 minutes)*

Higher-order post-Newtonian (PN) corrections to the equations of motion of compact binary systems composed of black holes or neutron stars are fundamental to the development and success of gravitational-wave astronomy. In the series of lectures, I will present the application of the ADM Hamiltonian formalism of general relativity to deriving equations of motion of compact binary systems within the perturbative PN scheme. Both conservative and dissipative (related to the emission of gravitational waves) effects in the dynamics will be considered.

**Primary author:** JARANOWSKI, Piotr (University of Bialystok)

**Presenter:** JARANOWSKI, Piotr (University of Bialystok)

**Session Classification:** Post-Newtonian General Relativity and Gravitational Waves