

Tuesday, October 26th @ 4pm

Physics & Astronomy Building (PAB) 4-740

“From Amplitude to Higher-Order Corrections to the Dynamics of Black-Hole Binaries”

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Abstract: I will describe recent progress in the program of using on-shell scattering amplitudes as input to obtain observables for the relativistic binary problem. This approach is by now very mature and provides a highly efficient, systematic and scalable way to obtain novel results in classical gravity, with even the potential to clear up conceptual questions in traditional approaches. I will discuss in detail the application of these methods to the computation of two-body potentials and observables including radiative effects.