Special Guest Lectures

Modelling sources of gravitational waves: from the birth of a black hole to the merger of binary systems

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Johnston Hall 338
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Abstract:
I will present a personal selection of recent work on the modeling of gravitational wave sources through the solution of the Einstein equations in both vacuum and non-vacuum space times. In particular, I will discuss our present understanding of the features of gravitational collapse to rotating black holes and of the recoil velocity in binary black hole systems with unequal spins.

Speaker's Bio:
Prof. Luciano Rezzolla heads the Numerical Relativity group within the Institute, which is principle user of the supercomputer cluster. He has joined the AEI after a permanence in the USA (Illinois) and Italy (SISSA). He has a long experience in relativistic astrophysics, particularly in computational studies of general relativistic hydrodynamics and magnetohydrodynamics applied to the modeling of gravitational-wave sources. He has also been involved in perturbative studies of compact objects and in the investigation of their nonlinear instabilities. Luciano Rezzolla is an adjunct professor at the Department of Physics and Astronomy at LSU.

Refreshments will be served.
This lecture has a reception.

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