



ICTS COLLOQUIUM

- Title : Coalescence and explosion of compact neutron star binaries
- Speaker : Masaru Shibata, Yukawa Institute for Theoretical Physics,
Kyoto University, Japan
- Date : Wednesday, June 26, 2013
- Time : 4:00 p.m.
- Venue : ICTS Lecture Hall, IISc Campus, Bangalore
- Abstract : The coalescence of binary neutron stars and black hole-neutron star binaries is one of the most promising sources of gravitational waves for ground-based laserinterferometric detectors. The merger of these systems is also the promising candidate for short-hard gamma ray bursts and possible source of strong transient electromagnetic emission. The signals of gravitational waves and electromagnetic waves will be detected in the next decade. For the detection, however, theoretical predictions are necessary. To strictly predict the properties of these signals, numerical-relativity simulations with the physical modeling are probably the unique approach. In my talk, I will summarize the current status for the numerical-relativity simulations.

(This colloquium is part of the ICTS Program on Numerical Relativity and the ICTS-IISc Joint Program)