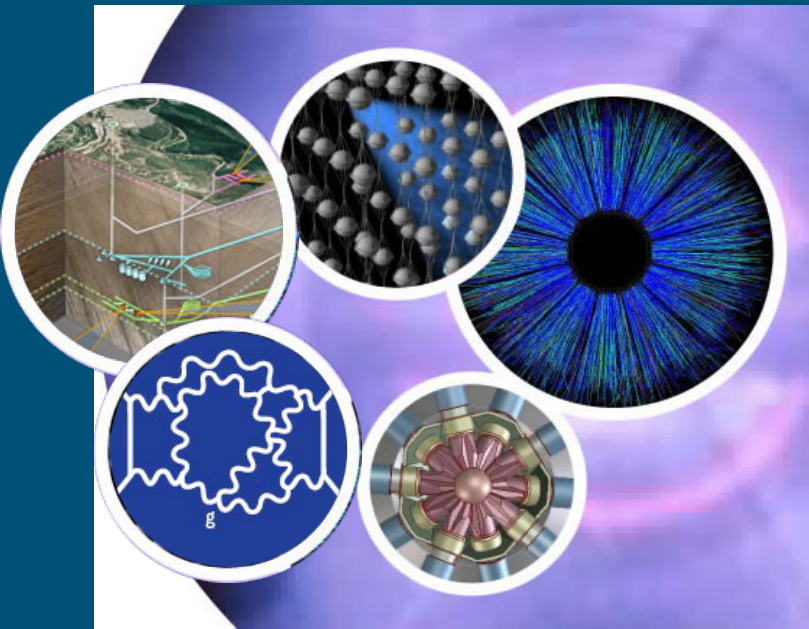


# Nuclear Science Division Colloquium

## Gravitational Waves: a New Window on the Universe



**Dr. Jay Marx**  
*Caltech*

Wednesday  
December 7, 2011  
11:00 am  
Bldg. 50-Auditorium

**Abstract:** The Laser Interferometer Gravitational-Wave Observatory (LIGO) is a facility dedicated to the detection of cosmic gravitational waves and pioneering of the new field of gravitational wave astronomy. This talk will describe the nature of gravitational waves, possible astrophysical sources of detectable gravitational waves such as merging pairs of black holes and neutron stars, supernovae and the big bang, how LIGO works, the current status of LIGO, and future plans for LIGO. Prospects for a coordinated international network of gravitational wave detectors that will function as a global gravitational wave telescope will also be described.



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