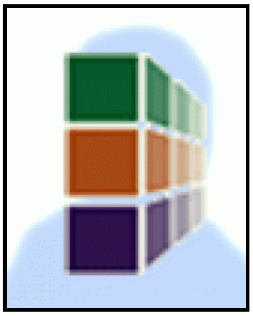

Special Guest Lectures

## Enabling gravitational-wave astronomy on the LIGO Data Grid

**Patrick Brady, Professor, University of Wisconsin at Milwaukee**

Johnston Hall 338
May 05, 2008 - 03:40 pm

**Abstract:**
The Laser Interferometer Gravitational-wave Observatory (LIGO) generates about 0.5 peta-bytes of data each year of observation. While the gravitational-wave channel represents only about 1% of this data, the analysis challenges are computationally formidable. LIGO has adopted a computational model which uses resources distributed around the world and organized into the LIGO Data Grid. I will describe the tools, services, and methodologies used to enable gravitational-wave astronomy on this distributed facility. I will also outline some of the analysis and computational challenges that face LIGO as we move into the enhanced and advanced eras.

**Speaker's Bio:**
Patrick Brady is a professor of physics at the University of Wisconsin-Milwaukee. His research interests include the the dynamics of gravitational collapse, black holes, numerical relativity including simulation of binary coalescence, and the detection of gravitational waves using interferometric gravitational-wave detectors. In broad terms, Dr. Brady is interested in theoretical and experimental aspects of gravitation. He is an Alfred P. Sloan Research Fellow and a Cottrell Scholar.



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