

Colloquium

Pedro Marroneti

Florida Atlantic University

Friday, April 8, 2011 at 3pm in Bell Hall 143

Binary Black Holes: State of the Field and Numerical Challenges

The field of numerical relativity experienced a growth spurt in the past five years that took the two-body problem in general relativity from the category of "really hard problems" to the realm of "things we know how to do". The numerical simulation of binary black holes in circular orbits, the holy grail of numerical relativity, is now a tractable problem that has led to some of the most interesting results in General Relativity in recent years. I will cover the latest achievements and highlight the field's next challenges with emphasis in the numerical aspects of these simulations.