## MAR10-2009-006353

Abstract for an Invited Paper for the MAR10 Meeting of the American Physical Society

Immersing Southeastern Louisiana Middle School Students in Physics at the LIGO Livingston Science Education Center  $^1$  AMBER STUVER, LIGO Livingston Observatory

The LIGO Science Education Center (SEC) is located adjacent to the LIGO Livingston Observatory and brings the excitement of gravitational wave science to Southeastern Louisiana. While the SEC offers programs targeted for middle school students, we also offer programs for students through post-secondary levels, teacher professional development and the public. Programs are LIGO related inquiry based activities and include guided investigations in our classroom and free exploration of the more than 40 hands on exhibits in our exhibit hall (most built by the Exploratorium). Students also get to visit the working LIGO observatory to interact with scientists and to see the science concepts they are learning in action. The LIGO SEC is the result of the unique collaboration between a museum (The Exploratorium), science laboratory (LIGO), university (Southern University-Baton Rouge) and local education agencies (LaSIP and LaGEAR-UP) to scaffold this outreach. The SEC also serves as a test bed for educational research through collaboration with a Tulane University psychology faculty member. New initiatives of the SEC include developing programs of repeated engagement with teachers through professional development and with students through field trips in order to undertake longitudinal studies on the impact of the informal education environment.

<sup>1</sup>The LIGO Science Education Center is supported by the NSF.