

Exploring Gravitational Waves in the Classroom

Lynn Cominsky, Kevin McLin, Carolyn Peruta, Aurore Simonnet and the LIGO EPO team

On September 14, 2015, the Laser Interferometer Gravitational-wave Observatory (LIGO) received the first confirmed gravitational wave signals. Now known as GW150914 (for the date on which the signals were received), the event represents the coalescence of two black holes that were previously in mutual orbit. LIGO's exciting discovery provides direct evidence of what is arguably the last major unconfirmed prediction of Einstein's General Theory of Relativity. The Education and Public Outreach group at Sonoma State University has created an educator's guide that provides a brief introduction to LIGO and to gravitational waves, along with two simple demonstration activities that can be done in the classroom to engage students in understanding LIGO's discovery. Additional resources have also been provided to extend student explorations of Einstein's Universe.

Abstract submitted as a late poster to HEAD/AAS meeting in April 2016 in Florida.