

Università degli Studi di Trieste

Dipartimento di Fisica INFN Sezione di Trieste

Alumnorum Colloquia

Andrea Taracchini

Max Planck Institute for Gravitational Physics – Albert Einstein Institute
Potsdam-Golm, Germany

April 6, 4.30 PM - Lecture room A, F building, Physics Dept. - via Valerio, 2 – Trieste

Observation of gravitational waves from the dynamical strong-field regime of general relativity



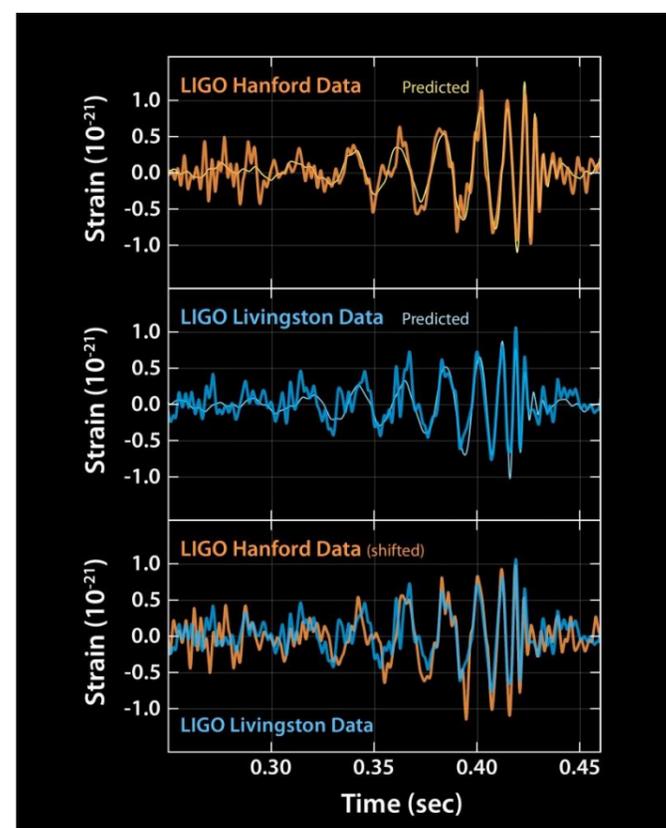
The direct detection of gravitational waves from a black-hole binary merger by advanced LIGO represents a paramount achievement that was made possible by the unique combination of improved experimental techniques and deep understanding of the two-body dynamics in general relativity. I will present the main ideas behind the method of detection and discuss the role of waveform modeling. I will also review what we can learn from

this detection in the way of constraints on astrophysics and tests of general relativity.

Andrea Taracchini, a former student of our Physics Department, is a co-author of the paper about gravitational waves that recently appeared.

Andrea was awarded both the bachelor (2006) and the master (2008) degrees in physics at the University of Trieste. He then moved to the University of Maryland for a PhD on the numeric simulation of binary black-hole systems.

Since September 2014 he holds a post-doc position at the Max Planck Institute for Gravitational Physics, Postdam, Germany, and is part of the LIGO team.



Organizzazione a cura di: INFN Sezione di Trieste, M. Girardi, E. Gozzi, G. Pastore, R. Rui, E. Vesselli