Gravitational Waves Detected, Confirming Einstein’s Theory

* The first detection of gravitational waves, announced on February 11, 2016, was a milestone in physics and astronomy; it confirmed a major prediction of Albert Einstein's 1915 general theory of relativity, and marked the beginning of the new field of gravitational-wave astronomy. Comparing ‘chirps’ from black holes.

A team of scientists announced on Thursday that they had heard and recorded the sound of two black holes colliding a billion light-years away, a fleeting chirp that fulfilled the last prediction of [Einstein’s general theory of relativity](http://www.nytimes.com/2015/11/24/science/a-century-ago-einsteins-theory-of-relativity-changed-everything.html).

That faint rising tone, physicists say, is the first direct evidence of gravitational waves, the ripples in the fabric of space-time that Einstein predicted a century ago. (Listen to it [here](http://podcasts.nytimes.com/podcasts/2016/02/11/science/space/ligo-chirp/LIGOChirp.mp3).) It completes his vision of a universe in which space and time are interwoven and dynamic, able to stretch, shrink and jiggle. And it is a ringing confirmation of the nature of black holes, the bottomless gravitational pits from which not even light can escape, which were the most foreboding (and unwelcome) part of his theory.

For complete report see:

<http://www.nytimes.com/2016/02/12/science/ligo-gravitational-waves-black-holes-einstein.html?_r=1>

For collition sound track listen to:

<http://podcasts.nytimes.com/podcasts/2016/02/11/science/space/ligo-chirp/LIGOChirp.mp3>