



## Gravitational Waves Detected 100 Years after Einstein's Theory

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A team of international scientists recorded the gravitational waves of two black holes colliding 1.3 billion light-years away. This discovery was announced simultaneously in France (CNRS), Italy (INFN) and the United States (NSF) on February 11, 2016.

In France, M. Thierry Mandon, French minister for higher education and research, emphasized that International collaboration has been especially crucial in this discovery [1].

75 French scientists from 6 CNRS (French National Center for Scientific Research) laboratories have been involved in the project, three of them, Matteo Barsuglia, Fabien Cavalier and Laurent Pinard, participated in the National Science Foundation (NSF) Press Conference in Washington, DC on February 11, 2016.

CNRS Researchers Matteo Barsuglia and Laurent Pinard at the National Press Club in Washington DC on February 11, 2016.

CNRS Researchers Matteo Barsuglia and Fabien Cavalier at the Embassy of France in Washington DC on February 11, 2016.



By detecting gravitational waves for the first time, the U.S. Gravitational-wave Observatory **LIGO** and teams from the French-Italian Gravitational-wave Observatory **EGO-VIRGO** were also first in observing a collision between two black holes, thus opening a new window to the Universe.

After a quest that lasted half a century, physicists—more precisely those working since 2007 as part of the international collaboration associating the LIGO and EGO-VIRGO observatories—have finally found the Holy Grail: the first detection of a gravitational wave; the latter having been generated by the collision of two black holes. Not only does this discovery further validate Einstein's theory, it also brings astronomy into a new era by providing an entirely novel way to observe the most violent phenomena in the Universe.

The EGO-VIRGO observatory is currently being upgraded to improve its sensitivity and will be able to work simultaneously with the two U.S. LIGO observatories in late 2016. This will hopefully enable the triangulation

of Gravitational waves and create unprecedented opportunities for Science.

**For more information:**

- NSF Press Release: [Gravitational waves detected 100 years after Einstein's prediction](#)
- CNRS News Article: [Gravitational Waves Detected](#)
- CNRS News Article: [A New Window to the Universe](#)
- CNRS News Video: [Gravitational Waves: A Historic Moment](#)

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Footnotes

[ 1 ]

<http://www.enseignementsup-recherche.gouv.fr/cid98877/six-laboratoires-francais-ont-contribue-a-la-decouverte-majeure-des-ondes-gravitationnelles.html>