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Einstein, gravitational waves and black holes**Gabriela Gonzalez, Louisiana State University**

for the LIGO Scientific Collaboration and the Virgo Collaboration

Digital Media Center Theatre
July 26, 2017 - 05:00 pm**Abstract:**

More than a hundred years ago, Einstein predicted that there were ripples in the fabric of space-time traveling at the speed of light: gravitational waves. On September 14, 2015, the LIGO detectors in Hanford, Washington and Livingston, Louisiana in the US registered for the first time ever a loud gravitational wave signal traveling through Earth, created more than a billion years ago by the merger of two black holes. A few months later, in December 2015, another signal, also from black holes, was detected. These observations marked the beginning of gravitational wave astronomy. We will describe the history and details of the observations, and the gravity-bright future of the field.

Speaker's Bio:

González's research and work as the former spokesperson for the 1,000-member international LIGO Scientific Collaboration opened a new window of discovery to the cosmos. This milestone discovery was recognized as the 2016 Breakthrough of the Year by Science magazine. González has been recognized as one of the "Ten People Who Mattered" by the scientific journal Nature; a recipient of the 2017 National Academy of Sciences Award for Scientific Discovery; a newly elected member of the American Academy of Arts and Sciences; Scientist of the Year by Great Minds in STEM; and elected as a member to the National Academy of Sciences two months ago. She was the longest serving elected spokesperson for the LIGO Scientific Collaboration — a position she held for six years.

Refreshments will be served.