

Education & public outreach activities of the LIGO Scientific Collaboration

David Keitel*

for the LIGO Scientific Collaboration

March 15, 2019

(submitted to session C8, Amaldi13, Valencia, July 2019)

Gravitational wave science took the spotlight of global media and public attention when we announced our first detection in 2016, and again with the huge multi-messenger success and Nobel prize in 2017. More recently, the LIGO-Virgo event catalog GWTC-1 was released in December 2018, and in early 2019 funding was announced for the "Advanced LIGO plus" upgrade and for LIGO India. In this presentation I will give an overview of the education and public outreach program of the LIGO Scientific Collaboration (LSC) which, together with its partners, has enabled these milestones. However, I will focus on our ongoing sustained efforts to further educate the public on our scientific achievements and the value of fundamental research, and to pave the way for a positive reception of future LIGO upgrades and new detectors. Our work includes local education centers, visits to schools and festivals, the production of written and multimedia outreach materials, social media, political outreach, provision of open data access, and citizen science projects. And in particular, with the new O3 observing run, this year marks our transition to open public alerts, delivering new gravitational wave detections directly to any interested citizen on the planet.

*University of Portsmouth, England, UK