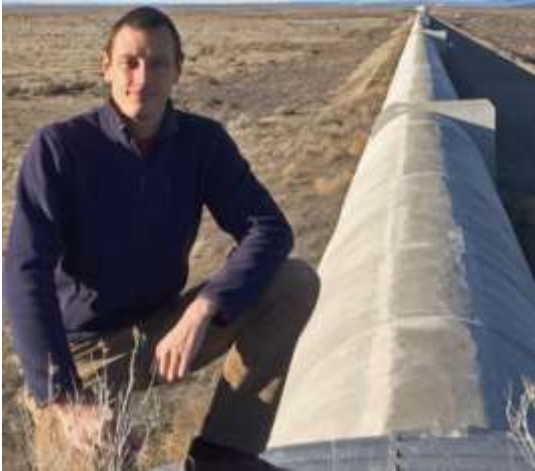


Special OSSC Webinar Presentation, April 27, 2022, 7:00pm
“The Optical Technologies that Allowed the Detection of Gravitational Waves”

By Dr. Gabriele Vajente
Senior Research Scientist, Caltech LIGO Team

Abstract: The detection of Gravitational Wave signals from binary black holes and binary neutron stars coalescences opened a new era in modern astronomy. Those discoveries were possible using high sensitivity km-scale laser interferometers. In this talk we will describe the most important optical techniques that allowed the Advanced LIGO and Virgo detectors to reach their unprecedented sensitivity and to detect gravitational waves.



Bio: Gabriele Vajente earned his doctoral degree in experimental physics from Scuola Normale Superiore in Pisa, Italy, working at the commissioning and characterization of the European Virgo gravitational wave interferometric detector. He worked since then in the field of experimental gravity, contributing in particular to the design, construction and operation of second-generation gravitational wave detectors: first working at the design of the European Advanced Virgo instrument, and then joining the LIGO laboratory at the California Institute of Technology, where he is a senior research scientist. He is currently involved in the commissioning and operation of the Advanced LIGO detector, in the design of improved high reflectivity coatings for future detector upgrades, and in the application of modern control techniques, including machine learning, to gravitational wave detectors



Special OSSC Webinar Wednesday, April 27th, 2022
Agenda and Registration

Prior Registration Required: [OSSC.org/LIGO Presentation Registration](https://OSSC.org/LIGO%20Presentation%20Registration)
Logon Credentials emailed on April 27, 2022.

6:30pm Attendees Logon

7:00pm –7:10 pm OSSC Overview & Dr. Vajente Introduction

7:10pm-8:10pm Dr. Vajente Presentation

8:10pm--8:40pm Q & A

9:00pm Meeting closes