

Tuesday
February 13, 2018

“LIGO: All about the Waves”

LOCATION:

Shilo Inn
50 Comstock
Richland, Washington

5:30 p.m. - Check in/Networking
and Appetizers

6:00 p.m. - Buffet Dinner

6:45 p.m. - Presentation

DINNER BUFFET MENU:

The Chef and crew at Northwest Food Craft provide a fine and varied buffet dinner for us at the Shilo Inn. The buffet usually includes two entree choices, plus accompanying vegetable, salad, and dessert.

Your choice of coffee or tea is included with dinner.

Cost:

\$20 ASQ members
\$25 non members
\$5 presentation only

(cash, check or credit card)

Reservations are due February 8.
E-mail 0614asq@gmail.com
with your name, phone number,
company affiliation, and type of
reservation.

Note: All no shows will be billed
unless cancelled 48 hours in
advance.

For more information about our
ASQ section and other upcoming
events: www.asq614.org/



Rick Savage
LIGO Hanford Observatory

The Laser Interferometer Gravitational-Wave Observatory (LIGO) Laboratory is the U.S. national facility for gravitational-wave research. The first detections of gravitational waves by LIGO in 2015 opened the field of gravitational-wave astronomy. Funded by the National Science Foundation, LIGO Laboratory's mission is to observe gravitational-wave sources, to operate the LIGO Hanford and Livingston Observatories in support of national and international scientific communities, to carry out research and development for future gravitational-wave detectors, and to carry out scientific education and public outreach related to gravitational wave astronomy.

Gravitational wave detectors like LIGO will answer some outstanding questions related to gravitation and astrophysics, such as:

- Is general relativity the correct theory of gravity?
- How does matter behave under extreme densities and pressures?
- How abundant are stellar-mass black holes?
- What is the central engine driving gamma ray bursts?
- What happens when a massive star collapses?

August 17, 2017, marked the first time scientists directly detected gravitational waves - ripples in space and time - in addition to light from the spectacular collision of two neutron stars. This was the first time a cosmic event was viewed in both gravitational waves and light. The discovery was made using the U.S.-based LIGO, the Europe-based Virgo detector, and some 70 ground- and space-based observatories.

Join us February 13 to learn more about interferometers, gravitational waves, optics, feedback and control systems, and seismic isolation, as well as the role of computers in running the LIGO instruments and the data it collects. Rick will also share some of the quality requirements and challenges associated with the LIGO Hanford Observatory.

***About the speaker:** Rick Savage earned his bachelor's degree in physics and master's and doctoral degrees in electrical engineering at UCLA. He began working as a scientist with the LIGO project at Caltech in 1992 and has been with the LIGO Hanford Observatory since 1997. His roles include improving the sensitivity of interferometers, stabilizing lasers and calibrating detectors.*