

**2017 Aspen Center for Physics Winter Conference
The Dawning Era of Gravitational-Wave Astrophysics
February 5–11, 2017
Conference website**

Conference Schedule

Day 0: Sunday February 5, 2017

5–7pm Cocktail reception

Day 1: Monday February 6, 2017

Chair: Daniel Holz

8:25 Welcome

8:30 O1 results and where we are now

9:15 What LIGO's O1 results have taught us about astrophysics

10:00 Open challenges and Future directions for LIGO searches

- Daniel Holz (5 min)
- Laura Cadonati (30 + 15)
- Chris Belczynski (30 + 15)
- Duncan Meacher (20 + 10)

Chair: Patrick Brady

4:30 Testing GR with GW sources

5:10 Precision Measurement of Black Hole Mergers

5:50 Break (15)

6:05 Numerical relativity and GW data

6:45 Instrumental challenges with Advanced LIGO

- Nico Yunes (25 + 15)
- Carl Johan Haster (25 + 15)

- Richard O'Shaughnessy (25 + 15)
- Stefan Ballmer (25 + 15)

Day 2: Tuesday February 7, 2017

Chair: Ilya Mandel

- 8:30 Distinguishing BBH Formation Channels with Eccentricity and Spin - Carl Rodriguez (20 + 10)
9:00 Chemically homogeneous formation/SNe - Philipp Podsiadlowski (20 + 10)
9:30 Disentangling LIGO sources in dense stellar systems - Bence Kocsis (20 + 10)
10:00 Parameter Distributions of Eccentric Stellar BHBs in Galactic Nuclei - Zsolt Frei (20 + 10)

Chair: Nergis Mavalvala

- 4:30 Design targets for a new generation of detectors - Matt Evans (25 + 10)
5:05 Lasers for 3rd Generation Gravitational Wave Detectors - Benno Willke (20 + 10)
5:35 Quantum noise in GW detectors: A New Hope - Belinda Pang (20 + 10)
6:05 Break (15)
6:20 Angular Resolution of Atom Interferometers - Sunghoon Jung (20 + 10)
6:50 Beyond GR Test of Gravitational Wave Dispersion and Polarization - Ron Tso (20 + 10)

Day 3: Wednesday February 8, 2017

Chair: Richard O'Shaughnessy

- 8:30 Numerical simulations of merging black holes - Geoffrey Lovelace (20 + 10)
9:00 Charged black holes and binaries in Multi-messenger - Steven Liebling (20 + 10)
9:30 Radiation Transport in Dynamic Spacetimes - Jeremy Schnittman (20 + 10)
10:00 Analytical and numerical modeling of eccentric binaries - Eliu Huerta (20 + 10)

No afternoon session due to public events at Wheeler Opera House:

- 4:30 Science Cafe with Leo Singer and Marcelle Soares-Santos
5:30 Public Lecture by Rana Adhikari

Day 4: Thursday February 9, 2017

Chair: Neil Cornish

8:30 Science with PTAs

9:00 eLISA mission design

9:30 Merging Supermassive Black Hole Binaries

10:00 Detection of Massive BHBs by Pulsar Timing Arrays

- Michele Vallisneri (20 + 10)

- Guido Mueller (20 + 10)

- Zoltan Haiman (20 + 10)

- Luke Kelley (20 + 10)

Chair: Matias Zaldarriaga

4:30 The kick is in the waveform: detection of black-hole recoils

5:00 The ringdown of rapidly rotating black holes

5:30 Reconstruction of GW signals

6:00 Break (15)

6:15 GW150914: spin constraints on the merger time of the progenitor

6:45 Have we detected Dark Matter in LIGO data?

7:15 Primordial black holes in the mass range relevant to LIGO

- Davide Gerosa (20 + 10)

- Aaron Zimmerman (20 + 10)

- Sergey Klimenko (20 + 10)

- Doron Kushnir (20 + 10)

- Ilias Cholis (20 + 10)

- Alex Kusenko (20 + 10)

Conference Banquet at the Aspen Meadows

Day 5: Friday February 10, 2017

Chair: Jordan Camp

8:30 First Light: EM Follow-Up with Ground-Based GW Detectors

9:00 GW/EM follow-up

9:30 LIGO localization

10:00 EM signatures of CBC systems

- Leo Singer (20 + 10)

- Marcelle Soares-Santos (20 + 10)

- Hsin-Yu Chen (20 + 10)

- Daniel Siegel (20 + 10)

Chair: Jim Annis

4:30 Neutrino Burst-Induced Gravitational Radiation

5:10 Detecting the Unexpected

5:50 Break (15)

6:05 Summary & Discussion

- George Fuller (25 + 15)

- Neil Cornish (25 + 15)

- Ilya Mandel (85)