

# Einstein Fellows Symposium 2018

Tuesday, October 2

9:15 – 9:30 **Welcome:** Paul Green & Belinda Wilkes

## Session 1: Gravity & Lensing

9:30 – 10:45

Chair: Rosanne Distefano

9:30 – 9:55 Davide Gerosa

*Getting ready: exploiting LISA to improve LIGO's tests of general relativity*

9:55 – 10:20 Liang Dai

*Detecting lensing diffraction effects in gravitational waves from compact binary coalescence*

10:20 – 10:45 Maximiliano Isi

*Gravitational-wave polarizations beyond general relativity: recent measurements and future prospects*

10:45 – 11:10 Coffee

## Session 2: Supernovae, Kilonovae, GRBs & Pulsars

11:10 – 12:50

Chair: Edo Berger

11:10 – 11:35 Ben Margalit

*FRBs as flaring magnetars, and their connection to SLSNe and LGRBs*

11:35 – 12:00 Daniel Siegel

*The cosmic origin of the heavy elements*

12:00 – 12:25 Jennifer Barnes

*Diagnosing nucleosynthesis in kilonova light curves*

12:25 – 12:50 Kate Alexander

*Radio Observations of GW170817: Probing the Structure of Relativistic Jets*

12:50 – 2:00 Lunch

## Keynote Speaker: Cecilia Garraffo

2:00 – 2:45

*Stellar Activity and Rotation in Cool Stars*

2:45 – 3:10 Coffee

## Session 3: Cosmology

3:10 – 5:15

Chair: Doug Finkbeiner

3:10 – 3:35 Benedikt Diemer

*The Splashback Radius of Dark Matter Halos*

3:35 – 4:00 Daniel Gruen

*The future of photometric redshifts*

4:00 – 4:25 Boris Leistedt

*Forward modeling photometric surveys*

4:25 – 4:50 Philip Mocz

*Small-scale features in fuzzy dark matter cosmology*

4:50 – 5:15 Zachary Slepian

*On Decoupling the Integrals of Cosmological Perturbation Theory*

6:30 Dinner for Fellows at the Nubar

## Wednesday, October 3

### Session 4: Stars

9:30 – 10:20

Chair: Andy Szentgyorgyi

9:30 - 9:55 Morgan MacLeod  
*Accretion onto compact objects during common envelope phases*

9:55 - 10:20 Anna Rosen  
*How Stellar Feedback Limits Accretion onto Massive Stars*

10:20 – 10:45 Coffee

### Session 5: Photons in Galaxies

10:45 – 11:35

Chair: Belinda Wilkes

10:45 – 11:10 Rahul Kannan  
*Impact of radiation fields in galaxies*

11:10 – 11:35 Aaron Smith  
*The Physics of Lyman-alpha Escape from High-Redshift Galaxies*

### Session 6: Active Galaxies

11:35 – 12:25

Chair: Paul Nulsen

11:35 – 12:00 Daniel D'Orazio  
*Tracking the orbits of supermassive black hole binaries at sub-parsec separations*

12:00 – 12:25 Ke Fang  
*Black hole jets in galaxy clusters as common origins of high-energy cosmic particles*

12:25 – 1:40 Lunch

### Session 7: AGN Variability

1:40 – 2:30

Chair: Grant Tremblay

1:40 – 2:05 Vivienne Baldassare  
*Variability as a tool for identifying AGNs in low-mass galaxies*

2:05 – 2:30 Krista Lynne Smith  
*High-Energy Astrophysics with Exoplanet Satellites: AGN and Blazars*

2:30 – 3:00 Coffee

### Session 8: Accretion

3:00 – 4:35

Chair: Malgosia Sobolewska

3:00 – 3:25 Dan Wilkins  
*Venturing Beyond the ISCO with X-ray Reverberation*

3:25 – 3:50 Vladimir Zhdankin  
*Turbulent particle energization in radiatively inefficient accretion flows*

3:50 – 4:15 Eric Coughlin  
*Self-similar Shock Propagation with Accretion*

4:15 – 4:35 Dheeraj Pasham  
*A Remarkably Loud Quasi-Periodicity after a Star is Disrupted by a Massive Black Hole*