

# PCGM Schedule

## Friday, March 25

9:00 – 9:10: Arrive + coffee

### Session 1: Chaired by Veronika Hubeny

9:10: **Veronika Hubeny** [UC Davis]

*Welcome*

9:15: **Sizheng Ma** (\*) [Caltech]

*Relativistic effects on neutron star fundamental-mode dynamical tides*

9:30: **Yoonsoo Kim** (\*) [Caltech]

*Comparison of shock capturing schemes for the discontinuous Galerkin method in GRMHD*

9:45: **Erik Wessel** (\*) [University of Arizona]

*NR simulations of PPI-unstable BH-disk systems: Effect of magnetization at late times*

10:00: **Gh. Saleh** [Saleh Research Centre]

*Gravitational frequency of stars with their planets and planets with other planets in the same system*

10:15 – 11:00: Coffee break

### Session 2: Chaired by Julio Virrueta

11:00: **Gary Horowitz** [UCSB]

*A new type of extremal black hole*

11:15: **Maciej Kolanowski** (\*) [University of Warsaw/UCSB]

*Almost all extremal black holes in AdS are singular*

11:30: **Robinson Mancilla** (\*) [UCSB]

*Thermal one-point function from Weyl tensor source.*

11:45: **Shruti Paranjape** [UC Davis]

*Supersymmetrizing Massive Gravity*

12:00: **Julie Perkins** (\*) [UCSB]

*Schrodinger Evolution of Four-Dimensional Black Holes*

12:15 – 2:00: Lunch break

### Session 3: Chaired by Shruti Paranjape

2:00: **Temple He** [UC Davis]

*Momentum diffusion and sound propagation in neutral plasma*

2:15: **Julio Virrueta** [UC Davis]

*Effective description of momentum diffusion in a charged plasma from holography*

2:30: **Xiaoyi Liu (\*)** [UCSB]

*Finding complex saddle-point solutions in JT gravity*

2:45: **Lucas Daguerre (\*)** [UC Davis]

*Holographic Approach to Irreversibility of the Renormalization Group*

3:00: **Xiaohua Ye (\*)** [UCSB]

*Phases of Holographic CFTs on a Product of Spheres*

3:15: **Ziyi Li (\*)** [UCSB]

*Aspects of Holography in Conical AdS3*

3:30 – 4:00: Coffee break

#### *Session 4: Chaired by Temple He*

4:00: **Alexey Milekhin** [UCSB]

*Black holes and cryptocurrencies*

4:15: **Henry Leung (\*)** [UCSB]

*Charged shells in black holes and scrambling*

4:30: **Leonel Queimada (\*)** [UCSB]

*Chaos in Charged Black Holes*

4:45: **Sean Colin-Ellerin (\*)** [UC Davis]

*Bootstrapping Quantum Extremal Surfaces*

5:00: **Molly Kaplan (\*)** [UCSB]

*The algebras of HRT-area and half-geodesic operators*

5:15: **Zhencheng Wang (\*)** [UCSB]

*The Spacetime Geometry of Fixed-Area States in Gravitational Systems*

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## Saturday, March 26

#### *Session 5: Chaired by Sean Colin-Ellerin*

9:00: **Gabriel Steffano Bonilla** [California State University, Fullerton]

*Modeling the Merger in Beyond-GR Waveforms*

9:15: **Robert Rosati** [NASA - MSFC]

*Detecting an Early-Universe Stochastic Gravitational Wave Background with LISA*

9:30: **Brian Seymour (\*)** [Caltech]

*Multiband Gravitational Wave Cosmography with Dark Sirens*

9:45: **Keefe Mitman (\*)** [Caltech]

*The Importance of BMS Frames for Gravitational Wave Modeling*

10:00: **Christian Ferko** [UC Davis]

*Gravitational Memory and Compact Extra Dimensions*

10:15: **Kellie O’Neal-Ault (\*)** [Embry-Riddle Aeronautical University]  
*Spacetime-symmetry breaking via dispersion and birefringence effects of gravitational waves*

10:30 – 11:00: Coffee break

*Session 6:* Chaired by Christian Ferko

11:00: **Dongjun Li (\*)** [Caltech]  
*An extension of Teukolsky formalism to beyond-GR theories*

11:15: **Rhondale Tso (\*)** [Caltech]  
*Constraining Vainshtein Screening with Cosmic Explorer*

11:30: **Wayne Weng (\*)** [UCSB]  
*A Tale of Two Butterflies: An Exact Equivalence in Higher-Derivative Gravity*

11:45: **Cem Yetişmişoğlu (\*)** [Koç University]  
*Scale covariant theories of gravity and a three dimensional example*

12:00 – 2:00: Lunch break

*Session 7:* Chaired by Julio Virrueta

2:00: **Jude Pereira (\*)** [Arizona State University]  
*A New Gauge for Flat Space*

2:15: **Juan Uribe (\*)** [Loyola Marymount University]  
*Characterization of EUP Black Holes*

2:30: **Weixuan Hu (\*)** [UC Davis]  
*covariant phase space quantization of cosmological models*

2:45: **Jordan Wilson-Gerow** [Caltech]  
*Aspects of the Correlated Worldline theory: formalism and signatures*

3:00: **Paul F. O’Brien** [none]  
*Defining quantum information with a Schwarzschild - Hawking BH*

3:15: **Steven Carlip** [UC Davis]  
*Path integrals may suppress non-manifoldlike causal sets*

3:30: Presentation of award for best student talk prize