

# PCGM 39 - The 39th Pacific Coast Gravity Meeting

*Dedicated to Jim Isenberg*

Friday, March 31, 2023		
8:30 - 9:00	Registration and Breakfast	
	<b>Session 1: GR / HEP</b>	<b>Chair: Jordan Wilson-Gerow</b>
9:00 - 9:12	Rico Lo *	Revamping the Generalized Sasaki-Nakamura formalism for efficient computations of radiation from black holes
9:13 - 9:25	Kwinten Fransen	Quasinormal Modes from Penrose Limits
9:26 - 9:38	Joonhwi Kim *	Spin-space-time: Unification of Spin and Spacetime into a Complex Geometry
9:39 - 9:51	Xiaoyi Liu *	Complex-stability of Euclidean Schwarzschild (AdS) black hole in the canonical ensemble under a general DeWitt metric
9:52 - 10:04	Zhencheng Wang *	Algebras of boundary observables from gravitational path integrals
10:05 - 10:17	Shohreh Abdolrahimi	A Distorted Black Ring
10:18 - 10:30	Lucas Daguerre *	Extracting quantum effects from near-extremal black holes using boundary correlators
10:31 - 10:43	Brian Seymour *	Probing the Effects of Nonviolent Nonlocality with Gravitational Waves
10:43 - 11:10	Coffee Break	
	<b>Session 2: Gravitational Waves</b>	<b>Chair: Katerina Chatziioannou</b>
11:10 - 11:22	Simona Miller *	Do gravitational wave signals carry information beyond effective spin parameters?
11:23 - 11:35	Keefe Mitman *	Nonlinearities in Black Hole Ringdowns
11:36 - 11:48	Sizheng Ma *	Black hole spectroscopy by mode cleaning
11:49 - 12:01	Dongze Sun *	Optimizing post-Newtonian parameters and fixing the BMS frame for numerical relativity waveform hybridizations
12:02 - 12:14	Sophie Hourihane *	Don't wait, reweight: Accurate characterization of the stochastic gravitational-wave background with pulsar timing arrays by likelihood reweighting
12:15 - 12:27	Talya Klingler *	Nested Sampling Forensics: Investigating LIGO-Virgo O1-O3a
12:27 - 12:39	Kellie O'Neal-Ault *	Recent Progress in Gravity Tests of Spacetime symmetries
12:40 - 12:52	Jocelyn Read	Interpreting waveform uncertainty in GW astronomy
12:52 - 14:00	Lunch	
	<b>Session 3: HEP</b>	<b>Chair: Gary Horowitz</b>
14:00 - 14:12	Richard Myers *	Systematics of Boundary Actions in Gauge Theory and Gravity
14:13 - 14:25	Henry Leung *	Exploring the black hole interior with two-point functions
14:26 - 14:38	Robinson Mancilla *	Aspects of thermal one-point functions and response functions in AdS black holes
14:39 - 14:51	David Grabovsky *	Heavy States and Thermality in 3D Gravity
14:52 - 15:04	Jiuci Xu *	Islands in Non-Minimal Dilaton Gravity: Exploring Effective Theories for Black Hole Evaporation (Part 1)
15:05 - 15:17	Chih-Hung Wu *	Islands in Non-Minimal Dilaton Gravity: Exploring Effective Theories for Black Hole Evaporation (Part 2)
15:18 - 15:30	Chris Waddell *	Negative Lambda Cosmology and AdS/CFT
15:30 - 16:00	Coffee Break	
	<b>Session 4: Astrophysics / Beyond GR</b>	<b>Chair: Jocelyn Read</b>
16:00 - 16:12	Marceline Bonilla	Extensions of Inspiral and Merger Waveforms for Modified Gravity Theories
16:13 - 16:25	Dongjun Li *	Study parity breaking in the modified Teukolsky formalism
16:26 - 16:38	Sam Gralla	Photon Ring Visibility Autocorrelations
16:39 - 16:51	Jane Bright *	Minidisk Influence on Flow Variability in Accreting Spinning Black Hole Binaries: Simulations in Full General Relativity
16:52 - 17:04	Michael Pajkos	Exploring the Viewing Angle Dependence of Gravitational-waves from Core-collapse Supernovae
17:05 - 17:17	Isaac Legred *	Simulating neutron stars with a flexible enthalpy-based equation of state parametrization in SpECTRE
Saturday, April 1, 2023		
8:30 - 9:00	Breakfast	
	<b>Session 5: GR / HEP</b>	<b>Chair: Sam Gralla</b>
9:00 - 9:12	Yangyang Cai *	Principal null directions as trajectories of ultrarelativistic charged particles with radiation reaction
9:13 - 9:25	Jude Pereira *	Old Schwarzschild in a New Bottle
9:26 - 9:38	Zi-Yue Wang *	Pole skipping for holographic theories: universal features of equation of motions at the horizon
9:39 - 9:51	Kunal Lobo *	Angular Momentum and Mass Moment in Post-Minkowskian Scattering
9:52 - 10:04	Hongji Wei *	An asymptotic framework for gravitational scattering: symmetries and conservation laws from past to future timelike infinity
10:05 - 10:17	Zander Moss *	Radiation Reaction from Gravitational Scattering Amplitudes
10:18 - 10:30	Jordan Wilson-Gerow	An Effective Field Theory for Extreme Mass Ratios
10:31 - 10:43	Suzanne Bintanja *	CFTs dual to quantum gravity with strongly coupled matter
10:43 - 11:10	Coffee Break	
	<b>Session 6: Numerical Relativity</b>	<b>Chair: Geoffrey Lovelace</b>
11:10 - 11:22	Alex Carpenter *	Visualizing Binary Black Hole Mergers with SpECTRE
11:23 - 11:35	Andrea Ceja *	Observing the Momentum Density of Waves in Black Hole Mergers
11:36 - 11:48	Himanshu Chaudhary *	Gauge conditions for Generalized Harmonic Evolution that reduce the deformations of the apparent horizon
11:49 - 12:01	Sarah Habib *	Improving Eccentricity Reduction for Black Hole Binaries in SpEC
12:02 - 12:14	Kyle Nelli *	Cauchy-Characteristic Matching in SpECTRE
12:15 - 12:27	Yoonsoo Kim *	Progress in GRMHD simulations with SpECTRE code
12:27 - 12:39	Nils Vu	A task-based parallel elliptic solver for numerical relativity with discontinuous Galerkin methods
12:40 - 12:52	Ananya Adhikari *	Neutron Star Tests with the Nmesh Program
12:52 - 14:00	Lunch	
	<b>Session 7: Detector / Data Analysis</b>	<b>Chair: Alan Weinstein</b>
14:00 - 14:12	Jacob Golomb *	The population of merging compact binaries inferred using gravitational waves through GWTC-3
14:13 - 14:25	Ethan Payne *	An overview of the calibration of gravitational-wave detectors
14:26 - 14:38	Rajashik Tarafder *	Quantum precision limits of displacement noise free interferometers
14:39 - 14:51	Aaron Markowitz *	An optomechanical instrumentation amplifier for readout loss evasion
14:52 - 15:04	Rhiannon Udall *	Bayesian Inference for Scattered Light Mitigation
15:05 - 15:17	Quentin G Bailey	Spacetime symmetry tests, from short-range gravity to gravitational waves
15:17 - 15:30	Group Photo!	
15:30 - 16:00	Coffee Break	
	<b>Session 8: HEP</b>	<b>Chair: Temple He / Jordan Wilson-Gerow</b>
16:00 - 16:12	Rahul Kumar	Observational Predictions of LQG Motivated Polymerized Black Holes
16:13 - 16:25	Christian Ferko	Holography and Irrelevant Operators
16:26 - 16:38	Alexey Milekhin	Boson stars and oscillons as holographic scar states
16:39 - 16:51	Temple He	Memory effect of shockwaves
16:52 - 17:04	Julio Virrueta	Exploration of the gravitational Schwinger-Keldysh geometry
17:05 - 17:17	Rana X Adhikari	The Need for Theorists in Experiments
17:17 - 17:30	DGRAV Best Student Presentation Award	

\* student eligible for DGRAV Best Student Presentation Award