| Welcome                   |                                | Friday, April 4 |
|---------------------------|--------------------------------|-----------------|
| 8:20 AM                   | Coffee & continental breakfast |                 |
| 8:50 AM Geoffrey Lovelace | Welcome & announcements        |                 |

| Session I  |                   | Friday, April 4   |
|------------|-------------------|---|
| 9:00 AM    | Vladimir Strokov  | LISA double white dwarf binaries as Galactic accelerometers   |
| 9:15 AM    | Tyler Smith*      | Isolated But Not Alone: Binary Black Hole Mergers   |
| 9:30 AM    | Isabella Pretto*  | Automated multimode fitting of binary black hole ringdowns  |
| 9:45 AM    | Brian Seymour*    | Inspiral tests of general relativity and waveform geometry  |
| 10:00 AM   | Tousif Islam      | Data-driven extraction, phenomenology and modeling of eccentric harmonics in binary black hole merger waveforms |
| 10:15 AM   | Jarosław Kopiński | Conformal geometry of spacetimes with prescribed asymptotic behavior  |
| 10:30 AM · | - 11:00 AM        | Coffee break  |

| Session II                 | Friday, April 4  |
|----------------------------|--|
| 11:00 AM Marceline Bonilla | Rescaled ppE Parameters for Parameter Estimation Across PN Order   |
| 11:15 AM Kai-Isaak Ellers* | How to measure gravitational frame-dragging on Earth with a superfluid interferometer                            |
| 11:30 AM Ryan Johnson*     | Correcting Compact Binary Inspiral Gravitational Waveform Uncertainty in Bayesian Inference Parameter Estimation |
| 11:45 AM Daniel Hooker*    | Testing Generalized Uncertainty Principles via Coherent States   |
| 12:00 PM Daniel Grass*     | Photon counting interferometry to detect geotropic space-time fluctuations with GQuEST                           |
| 12:15 PM Ajit Kumar Mehta  | Constraints on high-mass black hole populations from a search incorporating higher harmonics                     |
| 12:30 PM – 2:00 PM         | Lunch  |

<sup>\*</sup> Student presenter

| Session III              | Friday, April 4   |
|--------------------------|---|
| 2:00 PM Quentin Bailey   | Aspects of spacetime-symmetry breaking and gravity                            |
| 2:15 PM Zi-Yue Wang*     | The D-series minimal string theory  |
| 2:30 PM David Grabovsky* | Spin-Refined Partition Functions and CRT Black Holes                          |
| 2:45 PM Colin Weller*    | Classifying Isospectrality Beyond General Relativity                          |
| 3:00 PM Sang-Eon Bak*    | Modular Hamiltonian Fluctuations in Cosmology                                 |
| 3:15 PM Krishan Saraswat | Constraints from Entanglement Wedge Nesting for Holography at a Finite Cutoff |
| 3:30 PM – 4:00 PM        | Coffee break  |

| Session IV             | Friday, April 4  |
|------------------------|--|
| 4:00 PM Himanshu Chaud | dhary* How accurate is SpEC?   |
| 4:15 PM Taylor Knapp*  | A detailed look on the accuracy of BBH simulations with SpEC                                     |
| 4:30 PM Dongze Sun*    | Parameter matching between Post-Newtonian and Numerical Relativity for binary black hole systems |
| 4:45 PM Guido Da Re*   | Modeling the BMS transformation induced by a binary black hole merger                            |
| 5:00 PM Arthur Fischer | An Algorithmic Approach to the Cauchy Problem for the Einstein Field Equations                   |

| Welcome |                                | Saturday, April 5 |
|---------|--------------------------------|-------------------|
| 8:20 AM | Coffee & continental breakfast |                   |

| Session V  |                   | Saturday, April 5  |
|------------|-------------------|--|
| 9:00 AM    | Emily Wuchner     | Simulating the Recovery of Tidal Parameters From Neutron-Star Mergers With Ground-Based Gravitational-Wave Detectors |
| 9:15 AM    | James Kwon*       | Impact of nonlinear hydrodynamics on g-modes in neutron stars in coalescing binaries                                 |
| 9:30 AM    | Philip Sarkisian* | Electrodynamics in an Expanding Universe   |
| 9:45 AM    | Isaac Legred*     | Nuclear physics and extreme gravity  |
| 10:00 AM   | Andrew Laeuger*   | Ringdown Stability and Localized Matter Distributions  |
| 10:15 AM   | Yoonsoo Kim*      | Monster shocks and black hole pulsars from neutron starblack hole mergers  |
| 10:30 AM · | - 11:00 AM        | Coffee break   |

| Session VI                     | Saturday, April 5   |
|--------------------------------|---|
| 11:00 AM Guanyu Lu*            | Arbitrarily Negative ADM Mass for Kaluza-Klein Bubbles                              |
| 11:15 AM Henry Leung*          | New bulk cone singularities in Vaidya-like spacetimes from large c conformal blocks |
| 11:30 AM Sawyer Star*          | Solutions to Modified Uniform Accelerating Motion and Their Rindler Coordinates     |
| 11:45 AM Nauman Ibrahim*       | On the road to estimating the Weyl curvature in a causal set                        |
| 12:00 PM Dario Walter-Cardona* | Lorentz Symmetry Breaking as a nonlinear ODE  |
| 12:15 PM Joonhwi Kim*          | Newman-Janis Algorithm from Taub-NUT Instantons                                     |
| 12:30 PM – 2:00 PM             | Lunch   |

| Session VII               | Saturday, April 5  |
|---------------------------|--|
| 2:00 PM Kyle Nelli*       | Simulating Binary Black Holes with SpECTRE   |
| 2:15 PM Alexandra Macedo* | Improvements to SpECTRE's Computational Domain for Binary Black Hole Simulations   |
| 2:30 PM Alex Carpenter*   | Simulating Unequal Mass and Precessing Binary Black Holes with SpECTRE   |
| 2:45 PM Kumar Virbhadra   | Black hole lensing   |
| 3:00 PM Richard Cook      | The Gravitational Analog of Maxwell's Equations: A Solution to the Vacuum-energy and Cosmological-constant Problems within Conventional General Relativity |
| 3:15 PM Brian Tillotson   | Does gravitation emerge from a neutrino-<br>antineutrino plasma?   |
| 3:30 PM – 4:00 PM         | Coffee break   |

| Session VIII              | Saturday, April 5  |
|---------------------------|--|
| 4:00 PM Gh. Saleh         | A New Perspective on the Structure, Model, and Mechanism of Gravity      |
| 4:15 PM David Lindsay     | wCDM with w < -1 can solve the Hubble Tension, but destroys the universe |
| 4:30 PM Don V Black       | Mass Detection via Time Dilation   |
| 4:45 PM Frank Hafner      | Can an added degree of freedom of motion relate to gravity               |
| 5:00 PM Geoffrey Lovelace | Announcement of the DGRAV student prize winner                           |