Wed Jan 29 - The School 08:00 Registration Desk Opens	Thu Jan 30 - Workshop Day 1 08:00 Registration Desk Opens
09:00-10:15 Jeremy Heyl Introduction to General Relativity	08:55 Workshop Starts Welcome from organizers 09:00-09:30 Alessandra Buonanno Testing General Relativity through the inspiral, merger, and ringdown of a binary coalescence 09:30-10:00 Luis Lehner Testing gravity in the strong gravity regime, challenges and options 10:00-10:30 Michael Ross New experimental tests of gravity from Eot-Wash group
11:00-12:15 Kazuya Koyama Alternative gravity theories	11:00-11:30 Sarah Vigeland Testing gravity with pulsar timing arrays 11:30-11:45 Meng-Xiang Lin Testing gravity with realistic gravitational waveforms in pulsar timing arrays 11:45-12:00 Giorgio Gratta The short distance gravity program at Stanford 12:00-12:25 Gautam Venugopalan Suspended animation - an optomechanical test of short-range gravity 12:25-12:35 Jia Chengjie Experimental search for new short range interactions with Mossbauer spectroscopy
Lunch Break 12:30-14:00 (various locations)	Lunch Break 12:35-14:00 (various locations)
14:00-15:15 Luis Lehner Gravitational waves and their sources	14:00-14:30 Jessica McIver Testing gravity with gravitational waves 14:30-15:00 Daniel Carney Testing quantum gravity 15:00-15:30 Lam Hui Nonlinear static tidal deformation of black holes
16:00-17:15 Bhuvnesh Jain Cosmological tests of gravity	16:00-16:30 Will Percival Measuring HO and dark energy with DESI 16:30-17:00 Justin Khoury Gravitational memory and soft theorems: the local perspective 17:00-17:10 Hiromi Saida Current result of PPN test of black hole spacetime by observing the star SO-2 orbiting around the galactic central massive black hole Sgr A* 17:10-17:20 Jonathan Barenboim Evaporating non-singular black holes in 2D gravity 17:20-17:25 Ali Nezhadsafavi Cosmic strings in the complex symmetron model 17:25-17:35 Alan Knee Searching for continuous gravitational waves with a hidden Markov model 17:35-17:45 Conner Dailey Formulating the complete initial boundary value problem in numerical relativity to model black hole echoes 17:45-17:55 Shiming Gu
	Cosmic shear without small physical scales

## Pri Jan 31 - Workshop Day 2 08:30 Registration Desk Opens 09:00-09:30 Tessa Baker Cosmology with gravitational wave sirens 09:30-10:00 Eugene Lim Testing inflation with numerical relativity 10:00-10:30 Kazuya Koyama Simulations and nonlinearities beyond LCDM 11:00-11:30 Lia Medeiros ETH tests of gravity: what we've learned so far and what's to come 11:30-12:00 Bhuvnesh Jain Testing beyond wCDM models with higher statistics 12:00-12:30 Adam Pound High-precision waveform modeling in and beyond GR: the self-force approach

## **Lunch Break 12:30-14:00** (various locations) 14:00-14:30 Gray Rybka The search for axion dark matter (and gravitational waves) with ADMX 14:30-15:00 Clare Burrage Searching for screened scalar fields 15:00-15:15 Suvendu Giri The curvature dependence of gravitational-wave tests of General Relativity 15:15-15:30 **Benjamin Elder** Searching for dark energy, dark matter, and modified gravity with pairs of atomic clocks 16:00-16:30 Douglas Tuckler Dark matter 16:30-17:00 Martin Bojowald Emergent modified gravity 17:00-17:10 Akira Taniguchi Search for high-frequency gravitational waves with Rydberg atoms 17:10-17:20 Kate Taylor Null orbits in the Ernst-Wild geometry: exact and perturbative insights on black holes immersed in a magnetic field 17:20-17:30 Hamid Mirpoorian Modified recombination and the Hubble tension

## Tidal Love numbers of analog black holes 11:00-11:30 Filippo Vernizzi TBD 11:30-12:00 Andrea Capra Observation of the gravitational free-fall of antihydrogen with ALPHA-g at CERN 12:00-12:15 Alice Garoffolo Proper time path integrals for gravitational waves 12:15-12:30 Valerio De Luca New insights into tidal Love numbers **Lunch Break 12:30-14:00** (*various locations*) 14:00-14:15 Daniela Saadeh A field-level emulator for modified gravity 14:15-14:45 Misao Sasaki Probing gravitational waves with the large-scale structure of the universe 14:45-15:15 Chi-Kwan Chan Testing gravity and astrophysical models with EHT observations 15:15-15:30 Alessandra Silvestri Conference Summary

Sat Feb 1 - Workshop Day 3

**09:00** Registration Desk Opens

10:00-10:30 Mark Trodden