

# UCLA, December 11-15 2023

## Program

### Monday, December 11

Time	Speaker	Title
8:00		<b>Registration</b>
	<b>Chair: Lopez-Morales</b>	<b>Introduction</b>
8:45	Tommaso Treu	Welcome! Goals of the meeting
9:00	Rebecca Bernstein	The Giant Magellan Telescope: Design, Capabilities, and Status
9:30	Bob Kirshner	The Thirty Meter Telescope and the World of Science
10:00	Michele Cirasuolo	The ESO Extremely large Telescope
10:30	<i>Coffee Break</i>	
11:15	Eric Peng	The US Extremely Large Telescope Program: NOIRLab and the Science Data Life Cycle
11:45	Dimitri Mawet	MODHIS (Multi-Objective Diffraction-limited High-resolution Infrared Spectrograph
12:15	Warren Skidmore	How Science Cases Influence Observatory Design and Operations
12:30	<i>Lunch</i>	
	<b>Chair: Metchev</b>	<b>Exoplanets</b>
13:30	Mercedes Lopez-Morales	Exoplanetary Atmospheres with the ELTs
14:00	Björn Benneke	Exoplanet atmospheres in the era of JWST and the ELTs: complementarity between space and ground
14:30	Kevin Hardegree-Ullman	Bioverse and the Prospects for Observing Biosignatures with JWST and the ELTs
14:45	Christian Marois	Toward Imaging Rocky Exoplanets with TMT, From Validating Focal Plane WFS technologies on 8-m telescopes, to the Development of “Ultra Fast” Adaptive Optics Systems
15:00	<i>Coffee Break</i>	
	<b>Chair: Metchev</b>	<b>Exoplanets</b>
15:30	Rene Doyon	Atmospheric Characterization of Temperate Rocky Exoplanets – A JWST and ELT Perspective
16:00	Refath Bari	Detecting Molecular Nitrogen in Water World Atmospheres
16:15	Peter Smith	Stronger Together: Using Synergies Between Ground-Based Telescopes and JWST to Understand Exoplanet Atmospheres
16:30	Quang Tran	The March to Younger Planets through High-Precision Radial Velocities
16:45	Camryn Mullin	Direct Imaging of YSOs: Observing five circumstellar disks to search for forming planets

17:00	<b>End of the day</b>	
<b>Tuesday, December 12</b>		
<b>Time</b>	<b>Speaker</b>	<b>Title</b>
8:30		<b>Registration</b>
	<b>Chair: Bullock</b>	<b>Exoplanets</b>
9:00	Kimberly Ward-Duong	Exoplanetary System Imaging in the Combined Era of Ground and Space-based Vantage Points
9:30	Christophe Dumas	JWST/TMT synergy and complementarity for solar system observations
9:45	Ward-Duong, Doyon, Mawet	Roundtable: Exoplanet Spectroscopy
10:15	<b>Coffee Break</b>	
	<b>Chair: Bullock</b>	<b>Fundamental Physics and Cosmology</b>
11:00	Anna Nierenberg	Measuring the properties of dark matter with JWST and ELTs
11:30	Lou Strolger	Supernovae and Cosmology from JWST to the ELT
12:00	Wen-Fai Fong	The Race to Find Photons from Gravitational Wave Sources and Gamma-ray Bursts in the ELT Era
12:30	<b>Lunch</b>	
	<b>Chair: Nierenberg</b>	<b>Fundamental Physics and Cosmology</b>
13:30	Jorge Moreno	Cosmological simulations: JWST controversies and future ELT opportunities
14:00	James Bullock	The physics of disk galaxy formation over cosmic time
14:15	Laura Sales	The origin, evolution and dark matter content of ultradiffuse galaxies
14:30	Massimo Ricotti	Resolving star formation into parsec-scale compact star clusters in simulations and observations of strongly lensed galaxies at redshifts 6 to 13: Implications on the origin of old globular clusters and the sources driving cosmic reionization.
15:00	<b>Coffee Break</b>	
15:30	Joseph Jensen	Building an Independent Distance Ladder for Early-type Galaxies with HST, JWST, and ELT
15:45	Niusha Ahvazi	The role of dwarf galaxies as progenitors of the intra-cluster light in galaxy groups and clusters
16:00	Shawn Knabel	Cosmology through spatially resolved stellar kinematics of strong lensing galaxies: from Keck to JWST to ELTs
16:15	Pritom Mozumdar	A MUSE-HST synergy to probe galaxy morphology and Hubble constant in the era of ELT-JWST
16:30	Devon Williams	The First Quadruply Imaged Quasar Modeled with JWST Imaging: WFI2033 - 4723
16:45	Claire Williams	Lighting up early galaxies through the stream velocity
17:00	<b>End of talks</b>	

18:00		<b>BANQUET</b>
20:00	<i>End of the day</i>	
<b>Wednesday, December 13</b>		
<b>Time</b>	<b>Speaker</b>	<b>Title</b>
8:30		<i>Registration</i>
	<b>Chair: Chene</b>	<b>Black Holes and AGN</b>
9:00	Jonelle Walsh	Dynamical Studies of the Largest Supermassive Black Holes with JWST and ELTs
9:30	Justin Kader	Mapping Multi-scale AGN Outflows with Keck+JWST
9:45	Yuzo Ishikawa	Advancing dual quasars science at cosmic noon and beyond with ELTs: spatially resolved observations with JWST and ALMA
10:00	Tuan Do	Envisioning the next decade of Galactic center science with JWST and ELTs
10:15	<i>Coffee Break</i>	
		<b>Milky Way and Nearby Galaxies</b>
11:00	Kristen McQuinn	Resolved Stellar Populations Studies with the JWST
11:30	Mario Gennaro	Resolving stars with JWST and the ELTs in the Milky Way and its neighbors
12:00	Matthew Hosek	Star Formation in Extreme Environments: The Stellar Initial Mass Function at the Galactic Center with JWST and Future ELTs
12:15	<i>End of talks</i>	
1:00		<b>Start of TMT/UCLA lab tours</b>
6:00	<i>End of the day</i>	
<b>Thursday, December 14</b>		
<b>Time</b>	<b>Speaker</b>	<b>Title</b>
8:30		<i>Registration</i>
	<b>Chair: Wash</b>	<b>Galaxy Formation and Evolution</b>
9:00	Alice Shapley	High-Redshift Galaxy Formation with ELTs in the Era of JWST discovery
9:30	Danielle Berg	
10:00	Benjamin Metha	Geostatistics of Galaxies -- Making the most of metallicity maps
10:15	<i>Coffee Break</i>	
11:00	Chuck Steidel	Gas and Stars in the "Intermediate Redshift" Universe: Not Quite Dead Yet
11:30	Caitlin Casey	Mapping Massive Galaxies in Massive Structures in the First Billion Years
12:00	Jeyhan Kartaltepe	Lessons in Galaxy Evolution from the First Year of JWST Observations
12:30	<i>Lunch</i>	
	<b>Chair: Turner</b>	<b>Galaxy Formation and Evolution</b>
13:30	Zhaoran Liu	JWST, Subaru and the ELT Era

13:45	Santosh Harish	First look at the 7.7um JWST/MIRI sources in the COSMOS-Web
14:00	Mike Rich	Keck/KCWI studies of Lyman alpha Nebulae at $2 < z < 3$
14:15	Steidel, Casey, Wright, Shapley	Complementarity between ELT and JWST Spectroscopy
14:45	<i>Coffee Break</i>	
15:30	Ryan Endsley	Building a Detailed Picture of Reionization by Targeting UV-bright $z > 6$ Galaxies with ELTs
15:45	Peter Senchyna	Intertwined uncertainties in metal-poor massive star populations from $z \sim 10$ to 0
16:00	Bingjie Wang	Finding the first galaxies behind the lensing cluster Abell 2744
16:15	Hiroya Umeda	First JWST Constraints on the Key Cosmic Reionization Parameters with Ly $\alpha$ Damping Wing Absorptions of Galaxies at $z = 7-12$ : Towards the JWSTxELT Era
16:30	Yongda Zhu	Constraining Cosmic Reionization in the ELT Era: Direct Measurements of Ionizing Photon Mean Free Path
16:45	Danial Langeroodi	Correlation between compactness and metal-deficiency in high-redshift galaxies
17:00	<b>End of the day</b>	
<b>Friday, December 15</b>		
<b>Time</b>	<b>Speaker</b>	<b>Title</b>
8:30		<i>Registration</i>
	<b>Chair: Shapley</b>	<b>Galaxy Formation and Evolution</b>
9:00	Zixuan Peng	Using KCWI to Explore the Chemical Evolution and Feedback in a Reionization-era Spectral Analog J1044+0353
9:15	Yi Xu	Stellar and AGN Feedback Probed with Outflows in JWST Galaxies at $z = 3-9$ : Implications of Frequent Nearly-Spherical Galactic Fountains
9:30	Jeff Cooke	The high utility of $z \sim 2 - 20$ supernovae
9:45	<i>Coffee Break</i>	
10:30	Kartalpepe, Bennecke, Do, Gennaro	Optimizing JWST legacy for the era of ELTs
11:00	Narae Hwang and Masayuki Akiyama	Summary
11:30	<b>End of conference</b>	