# 10 Years to LISA

#### Agenda for Tuesday (4/1/25) –in Pacific Time

Time	Item	Talks (inp = in-person, vir = virtual)
8:00-8:45 AM	Coffee + Check-in	
8:45-8:55 AM	Welcome by Shouleh Nikzad, Manager of JPL's Science Division	
8:55-9:30 AM	Announcements	
9:30-10:20 AM	Session 1: Gravitational-Wave Telescopes and Observations From now to 2040 (Chair: D.H. Shoemaker), part 1	Overview of the LISA Mission - status etc., O. Jennrich, vir, 9:30 -10:00am  Cosmology from terrestrial detectors, T. Baker, vir, 10:00 -10:20am
10:20-10:45 AM	Coffee Break + Welcome from JPL Director Laurie Leshin (10:30 – 10:35)	
10:45AM-12:25PM	Session 1: Gravitational-Wave Telescopes and Observations From now to 2040 (Chair: D.H. Shoemaker), part 2	NS/nuclear physics inaccessible to LISA, A. Steiner, vir, 10:45 -11:05am  DarkMatter/exotica/surprises from terrestrial detectors, Sathyaprakash, vir, 11:05 -11:25am  Current ground based detectors and their likely evolution to 2040, L.Thomas, vir, 11:25 -11:45am  ET/CEwhat we hope to build, and what we could optimistically do by 2040, J. Smith, inp. 11:45am - 12:05  PTAs – evolution of the network and its sensitivity, P. Meyers, inp, 12:05 -12:25pm
12:25-1:35 PM	Lunch	
1:35-3:05 PM	Session 2: EM Telescopes and Observations From now to 2040 (Chair: D. Stern)	Overview, K. Burdge, inp, 1:35 -2:05pm  Searching for Massive Black Hole Binaries DESI, A. Palmese, vir, 2:05 -2:25pm

		How Can the NASA/IPAC Extragalactic Database (NED) Support LISA?, D. Cook, inp, 2:25 -2:45pm  The value of Direct Acceleration Measurements, T. Donlon, vir, 2:45 -3:05pm
3:05-3:20 PM	Coffee Break	
3:20-4:50 PM	Optional Tour of JPL	

# 10 Years to LISA

### Agenda for Wed (4/2/25) -in Pacific Time

Time	Item	Talks (inp = in-person, vir = virtual)
8:00-8:45 AM	Coffee + Check-in	
8:45-9:00 AM	Announcements	
9:00-11:00 AM	Session 3: The Population of LISA MBHBs: Inference from Current & Future Observations (Chair: P. Natarajan (Acting Chair on 4/2 is Z. Haiman)	Insights and Predictions from GRMHD Simulations of Supermassive Black Hole Mergers: Shaping Future Observational Strategies, M.Campanelli, inp, 9:05-9:30am  Multi-band Gravitational-wave Astronomy with Intermediate-Mass Black Holes in LISA, K. Jani, vir, 9:30-9:55am  Where are the supermassive black holes measured by PTAs?, G. Sato-Polito, vir, 9:55-10:20am  Black Hole Masses Inferred from Scaling Relations and Their Effect on LISA Predictions, J. Comerford, inp, 10:20-10:30am  Using Observations of Tidal Disruption Events to Forecast the Rates and Host Environments of LISA MBHBs, S. Gezari, vir,10:30-10:40am  The status of black hole binary waveform modeling and the requirements for LISA, S. McWilliams, vir, 10:40-10:50am  Stars or gas? Constraining the hardening processes of massive black-hole binaries with LISA, A. Spadaro, inp, 10:50-11:00am
11:00-11:20 AM	Coffee Break	

11:20AM-12:15PM	Session 4: The Population of LISA MBHBs: What we have learned from simulations (Chair: Alberto Sesana, Univ. of Milano-Bicocca), part 1  (on 4/2, Acting In-person Chair is T. Di Matteo & Remote Chair is A. Sesana)	Tracking on-the-fly massive black hole binary evolution and coalescence in galaxy simulations: RAMCOAL, K. Li (co-author M. Volonteri), vir, 11:20-11:45am  The BRAHMA simulations: Unveiling the first seeds of supermassive black holes using cosmological simulations of merging black hole populations, A. Bhomwick, inp, 11:45-12:00pm  What we learned from the LISA MBH Catalogs Project, M. Habouzit, vir, 12:00-12:15pm
12:15-1:30 PM	Lunch	
1:30-2:35 PM	Session 4: The Population of LISA MBHBs: What we have learned from simulations (Chair: Alberto Sesana, Univ. of Milano-Bicocca), part 2	A multimessenger view of massive black hole binaries through the lens of semi-analytical models for galaxy formation, D. Izquierdo-Villalba, vir (Italy +9h), 1:30-1:45pm  A Self-Consistent Data-Driven Approach to Modeling Massive Galaxies, Black Hole Growth and Merger Rates, K. M. Varadarajan, inp/vir, 1:45-1:57pm  Fact or FABLE: SMBH merger rates in cosmological simulations, D. Sijacki, vir, 1:57-2:09pm  Understanding Massive Black Hole Seed Mergers: Insights from the MAGICS Simulations and Implications for LISA Observations, Y. Zhou, inp, 2:09-2:21pm  Discussion, 2:21-2:35pm
2:35-3:35 PM	Session 5: EM Counterparts to GW Signals from MBHBs (Chair: Lucio Mayer, Uni of Zurich), part 1  (on 4/2, Acting In-person Chair is Z. Haiman & Remote Chair is L. Mayer)	Bringing LISA's Massive Black Hole Binaries to Light: From Theory to Observations, T. Bogdanovic, inp, 2:35-2:55pm  Electromagnetic Predictions of Accreting Black Hole Binary Systems from GRMHD Simulations, S.Noble, inp, 2:55-3:15pm  Electromagnetic signatures of massive black hole mergers, Z. Haiman, inp, 3:15-3:30 pm
3:30-3:50 PM	Coffee Break	

3:50-4:50 PM <b>Signals</b> : (Chair: I	Multimessenger prospects for massive black hobinaries in LISA, A. Mangiagli, vir, 3:50-4:00pm  A Preliminary Census of Time-Evolving LISA Parameter Estimates Using SDSS Galaxy Photometry, C. Drake, vir, 4:00-4:10pm  Identifying GW-driven massive black hole binard in LSST using Bayesian Analysis, C. Xin, inp, 4 4:20pm  Q&A + Discussion, 4:20-4:50pm	ies
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# 10 Years to LISA

### Agenda for Thursday (4/3/25) -in Pacific Time

Time	Item	Talks (inp = in-person, vir = virtual)
8:00-8:45 AM	Coffee + Check-in	
8:45-9:00 AM	Announcements	
9:00-11:00 AM	Session 6: <b>Galactic Binaries</b> (Chair: Kevin Burdge, MIT)	Hypervelocity white dwarfs as messengers from exploded ultracompact binaries, K. El-Badry, inp, 9:00-9:15am  Dotting the P's and crossing the T's: What can we learn from the orbital trajectory of LISA verification binaries and how will LISA help?, J. Munday, vir, 9:15-9:30am  The diverse outcomes of massive white dwarf binary mergers, K. Kremer, inp, 9:30-9:40am  Recovering Injected Astrophysics from the LISA Galactic Double White Dwarf Binaries, V. Delfavero, vir, 9:40-9:50am  9:50 AM-10:00 AM: Observational Estimates of LISA-audible AM CVn Binaries from a Gaia + ZTF Volume-Limited Survey, T. Rodriguez, inp, 9:50-10:00am  Milky Way structure and morphology from its gravitational wave signal, F. Pozzoli, inp, 10:00-10:10am  Simulation-based inference of double white dwarfs population in LISA data, R. Srinivasan, inp, 10:10-10:20am  Formation of Black Hole—White Dwarf X-ray Binaries in Globular Clusters, Y. Yang, inp, 10:20-10:30am  Zwicky Transient Search for Ultra-compact Galactic Binaries, T. Prince, inp, 10:30-10:40am  Orbital evolution of ultracompact binaries driven by gravitational waves and mass transfer, J. Chakraborty, inp, 10:40-11:00am

11:00-11:20 AM	Coffee Break	
11:20AM-12:18PM	Session 7: <b>EMRIs</b> (Chair: Pau Amaro-Seoane, Universitat Politècnica de València), part 1  (on 4/3, Acting in-person Chairs are A. Torres &V. Vazquez; Remote Chair is P. Amaro-Seoane)	The Galactic center with GRAVITY(+) and the ELT: what can we learn before LISA flies?, M. Sadun, inp, 11:20-11:54am  SgrA* spin and mass estimates through the detection of an extremely large mass-ratio inspiral, A. Torres/V. Vazquez, inp, 11:54-12:18pm
12:18-1:18 PM	Lunch	
1:18-2:30 PM	Session 7: <b>EMRIs</b> (Chair: Pau Amaro- Seoane, Universitat Politècnica de València), part 2	EMRI modelling with self-force theory, L. Barack/A. Pound, vir, 1:18-1:42pm  Small-mass-ratio binary modeling: Making EMRI waveforms for LISA great again!, S. Hughes/L. Speri, inp, 1:42-2:06pm  Extracting EMRIs in the LISA Global Fit, N. Cornish, inp, 2:06-2:30pm
2:30-3:30 PM	Session 8: Joint LISA + Ground- Based Observations of Stellar-Mass Binaries (Chair: Davide Gerosa, Univ. of Milano-Bicocca), part 1 (on 4/3, Acting Chair is J. Roulet)	Stellar-Mass Binaries in LISA: Prospects and Data Analysis Challenges, D. Bandopadhyay, inp, 2:30-3:00pm  LISA's role in understanding how stellar-mass binary black holes form, K. Breivik, vir, 3:00-3:30pm
3:30-3:50 PM	Coffee Break	
3:50-4:50 PM	Session 8: Joint LISA + Ground- Based Observations of Stellar-Mass Binaries (Chair: Davide Gerosa, Univ. of Milano-Bicocca), part 2	LISA+3G coherent multiband parameter estimation of BBHs using PyCBC, S. Wu, inp, 3:50-4:05pm  SFT: a scalable data-analysis framework for long-duration gravitational-wave signals, R. Tenorio, inp, 4:05-4:20pm  A Sea of Black Holes: Characterizing the LISA Signature for Stellar-Origin Black Hole Binaries, K. Ruiz-Rocha, inp, 4:20-4:35pm

	LISA double white dwarf binaries as Galactic accelerometers, V. Strokov, inp, 4:35-4:50pm