

Mini Workshop: Theory (IAS2042)

Jan 15 - 16, 2024 at 09:00 - 18:00

		Jan 15, 2024 (Mon) [Day 1]		Jan 16, 2024 (Tue) [Day 2]	
M-TH01		Chair: Minho SON (KAIST)		Chair: Haipeng AN (Tsinghua U)	
		Title	Speaker	Title	Speaker
	9:00	Phase Transitions During Inflation in Light of Gravitational Wave Signals in PTA Observations	Haipeng AN (Tsinghua U)	Relic QCD Axions from the Early Universe	Giovanni VILLADORO (ICTP)
	9:30	Origin of Nano-Hz Gravitational Wave Signal Detected by Pulsar Timing Arrays	Yuichiro NAKAI (Shanghai Jiaotong U)	Axion-Gauge Coupling Quantization in Standard Model	Ho Tat LAM (MIT)
	10:00	Gravitational Waves from More Attractive Dark Binaries	Sida LU (HKUST)	Axion Dark Matter from Cosmic String Network	Minho SON (KAIST)
M-TH02		Break		Break	
		Chair: Yi WANG (HKUST)		Chair: Jing REN (IHEP)	
		Title	Speaker	Title	Speaker
	10:30 - 11:00				
	11:00	Detecting High-Frequency Gravitational Waves in Planetary Magnetosphere	Jing Ren (IHEP)	Cosmological Parity Violation	Yi WANG (HKUST)
	11:30	A Fast Code to Generate Overlap Reduction Functions for Gravitational Wave Background Search	Kin Wang NG (Academia Sinica)	Can We Explain Cosmic Birefringence Without a New Light Field Beyond Standard Model?	Yucheng QIU (Shanghai Jiaotong U)
	12:00	Enhanced Gravitational Waves induced by Curvature Perturbations and New Physics	Takahiro TERADA (Institute for Basic Science)	Using Galaxy Formation Models to Unveil the Nature of Dark Matter in JWST Era	Giorgio MANZONI (HKUST)
M-TH03		Self-arranged Lunch		Self-arranged Lunch	
		Chair: Jing SHU (PKU)		Chair: Yiming ZHONG (City U of Hong Kong)	
		Title	Speaker	Title	Speaker
	12:30 - 14:30				
	14:30	From First Order Phase Transitions to GWs	Peter ATHRON (Nanjing Normal U)	SFR Cavity Physics	Jing SHU (PKU)
	15:00	Dissipative Effects as New Observables for Cosmological Phase Transitions	Huaike GUO (U of the Chinese Academy of Sciences)	Forbidden Conformal Dark Matter at a GeV	Seung LEE (Korea U)
M-TH04		Break		Break	
		Chair: Giovanni VILLADORO (ICTP)		Chair: Liantao WANG (U of Chicago)	
		Title	Speaker	Title	Speaker
	15:30 - 16:00				
	16:00	Dark Matter under the Gravitational Lens	Jeremy LIM(HKU)	Quantum Computing for HEP	Ying Ying LI (USTC)
	16:30	Constraining Dark Matter Self-interactions from Weak Lensing in Clusters	Yiming ZHONG (City U of Hong Kong)	A New Framework on Global Analysis of Fragmentation Functions	Jun GAO (Shanghai Jiaotong U)
	17:00	Searching for Dark Matter Decay with LHAASO	Kenny NG (CUHK)	Detecting Afterglow Signature from Light Dark Matter Boosted by Supernova Neutrinos	Yen-Hsun LIN (Academia Sinica)