

IAS Program on High Energy Physics (HEP 2022)

Thursday 13 January 2022

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 1 - Session 1: (MW-TH-D1-S1) /

Theme: Ultra-heavy DM (08:55 - 10:40)

-Conveners: Yue ZHAO

time	[id] title	presenter
08:55	[321] Opening Remarks	LIU, Tao
09:00	[251] Dark Matter from Primordial Black Holes	SANDICK, Pearl
09:30	[252] Did LIGO Detect Dark Matter? An Update	BIRD, Simeon
10:00	[253] Primordial Black Holes as Dark Matter in the View of LIGO/Virgo Observations	CLESSE, Sébastien
10:30	Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 1 - Session 2: (MW-TH-D1-S2) /

Theme: Ultra-light DM (10:40 - 15:00)

-Conveners: Tao LIU

time	[id] title	presenter
10:40	[254] The Cosmic Axion Background	DROR, Jeff
11:10	[255] Determining the Existence of Primordial Black Holes and Ultralight Dark Matter Using Gravitational-wave Detectors	MILLER, Andrew
11:40	[256] Axi-Higgs Cosmology	TYE, Henry
12:10	Long Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 1 - Session 3 (MW-TH-D1-S3) / Theme:

Ultra-light DM (15:00 - 16:40)

-Conveners: Yue ZHAO

time	[id] title	presenter
15:00	[257] Gravitational Wave Detection between NANOGrav and LISA	RAJENDRAN, Surjeet
15:30	[258] Pulsar Polarization Arrays	REN, Jing
16:00	[259] Solar Reflection of Dark Matter	AN, Haipeng
16:30	Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 1 - Session 4 (MW-TH-D1-S4) / Theme:

Ultra-light DM (16:40 - 18:10)

-Conveners: Yue ZHAO

time	[id] title	presenter
16:40	[260] Dark Photon Dark Matter Searches at LIGO	GUO, Huaik

17:10	[261] Search for Ultralight Dark Matter and Cosmological Phase Transition with Parkes Pulsar Timing Array	YUAN, Qiang
17:40	[262] Heavy Sterile Neutrinos: From Cosmology to Experiment	DREWES, Marco

Friday 14 January 2022

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 2 - Session 1 (MW-TH-D2-S1) / Theme: Sub-GeV/ GeV/ TeV DM (09:00 - 10:40)

-Conveners: Ke FANG

time	[id] title	presenter
09:00	[263] Direct Detection of Sub-GeV Dark Matter	LIN, Tongyan
09:30	[264] Indirect Detection limits on Minimal Electroweak Dark Matter	BAUMGART, Matthew
10:00	[265] Neutrino Astronomy at High Energies	LIU, Qinrui
10:30	Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 2 - Session 2 (MW-TH-D2-S2) / Theme: Sub-GeV/ GeV/ TeV DM (10:40 - 15:00)

-Conveners: Ke FANG

time	[id] title	presenter
10:40	[266] Ultra-diffuse Galaxies and Their Complications for Testing Dark Matter Theories	YU, Hai-bo
11:10	[267] Searching for Ultra-light Bosons in Stellar Tidal Disruption Events	EGANA-UGRINOVIC, Daniel
11:40	[300] Detecting High-Frequency Gravitational Waves with Microwave Cavities	SCHÜTTE-ENGEL, Jan
12:10	Long Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 2 - Session 3 (MW-TH-D2-S3) / Theme: Sub-GeV/ GeV/ TeV DM (15:00 - 16:40)

-Conveners: Ke FANG

time	[id] title	presenter
15:00	[269] TeV Halos: A New Class of TeV Sources Powered by Pulsars	LINDEN , Timothy
15:30	[270] Recent Developments in the Very-high-energy Gamma-ray Astronomy	ZHOU, Hao
16:00	[271] Multi-messenger Searches for New Physics	GAGGERO , Daniele
16:30	Break	

Mini-workshop: Theory - Searching for New Physics at Various Energy Scales: Day 2 - Session 4 (MW-TH-D2-S4) / Theme: Sub-GeV/ GeV/ TeV DM (16:40 - 18:10)

-Conveners: Tao LIU

time	[id] title	presenter
16:40	[272] Super Heavy Dark Matter	KUFLIK , Eric
17:10	[273] Searching for Dark Matter with High-energy Neutrinos	NG , Kenny C. Y.
17:40	[274] Cosmic Ray Boosted Dark Matter for Overcoming the Direct Detection Threshold	GE, Shao-Feng