



# Quantum Information Science for Fundamental Physics

## Tuesday, 18 February 2020

### Evening session: Quantum information and space-time (16:30 - 17:30)

time	[id] title	presenter
16:30	[5] Comments on QI in accelerating cosmology (phenomenological and thought-experimental)	SILVERSTEIN, Eva
17:00	[6] Quantum entropy generated by dynamical evolution	SUH, Josephine

# Thursday, 20 February 2020

## Evening session: Dark matter detection ideas (16:30 - 19:30)

time	[id] title	presenter
16:30	[17] Axion and Gravitational Waves from Black Hole Superradiance	BARYAKHTAR, Masha
17:00	[18] Searching for Dark Matter with Athermal Phonon Detectors Throughout the Mass Range from 50meV through 500MeV	PYLE, Matt
17:30	[19] ABRACADABRA-10cm: Searching for Axions and Preparing for DMRadio-m3	WINSLOW, Lindley
18:00	Coffee break	
18:30	[20] Dark Matter Detection with Magnons and Phonons	ZHANG, K.
19:00	[21] Plasmons and Excesses in Low-Threshold Dark Matter Experiments	KAHN, Yoni

# Friday, 21 February 2020

## Evening session: Quantum control of oscillators (16:30 - 17:30)

time	[id] title	presenter
16:30	[27] Precision searches for new physics using optically levitated sensors	MOORE, David
17:00	[28] Exploring sensing and quantum measurement with membrane cavity optomechanics	REGAL, Cindy

## Evening session: Qubits and quantum sensing (18:00 - 19:40)

time	[id] title	presenter
18:00	[29] Quantum metamaterial for nondestructive microwave photon detection	BLAIS, Alexandre
18:30	[30] TBD	SCHUSTER, Dave
19:00	[31] HAYSTAC and the Search for Dark Matter Axions above 10 micro-eV	MARUYAMA, Reina

# Saturday, 22 February 2020

## Evening session: Towards the future (10:30 - 12:00)

time	[id] title	presenter
10:30	[37] Panel discussion: Strategies for Advancing QIS and Fundamental Science (Raphael Bousso, Joe Lykken, Yoshihisa Yamamoto, Maria Spiropulu + ...)	CHOU, Aaron LYKKEN, Joe ZUREK, Kathryn LEHNERT, Konrad SPIROPULU, Maria BOUSSO, Raphael