



# Quantum Sensors for HEP

## Thursday, 27 April 2023

**Hybrid town hall 2: Dark particles, phonons, optomechanics, sensor arrays - Yale Quantum Institute / Wright Laboratory (15:50 - 17:00)**

time	[id] title	presenter
15:50	[52] Exploiting the Physics of the Field for Compute-in-Sensor	LEONARD, Francois
15:55	[53] Understanding and Mitigating quasi-particle excess due to phonons and IR produced by stress relaxation	PYLE, matt
16:00	[54] Material science of quantum sensors	PEREVERZEV, Sergey
16:05	[55] Sapphire substrate qubits for low mass Dark Matter searches	KHATIWADA, Rakshya
16:10	[56] Optical Strain Sensing for Particle Detection	TEMPLES, Dylan
16:15	[57] Closing the Loop on Quantum Research with Skipper-CCDs: DOE-OHEP's Contribution to Advancements in Quantum Sensing	TIFFENBERG, Javier
16:20	[58] Nuclear decays with mechanical quantum sensors	CARNEY, Daniel
16:25	[59] The Windchime Project	LANG, Rafael
16:30	[60] Back action evasion and quantum noise reduction in quantum magnetometers for particle and field detectors	MARVINNEY, Claire
16:35	[61] Quantum Enhanced Detection of Quantum Fields and Particles through Networked Entangled Sensors	MARINO, Alberto
16:40	[62] Entanglement-enhanced optomechanical dark matter detectors	WILSON, Dalziel
16:45	[64] Rydberg atoms as single-photon detectors for axions	MARUYAMA, Reina
16:50	[65] Noble and Alkali Spin Detectors for Ultralight Coherent dark matter (NASDUCK)	BLOCH, Itay