

CPAD Workshop 2022



Contribution ID: 158

Type: **Contribution Talk**

Superconducting Nanowire Single Photon Detectors

Tuesday, 29 November 2022 13:30 (20 minutes)

Superconducting Nanowire Single Photon Detectors (SNSPDs) are world-leading detectors for time-resolved single photon counting from the UV to the infrared. We will survey the latest progress in the field of SNSPDs, and discuss recent progress as a community in reducing the energy threshold (as low as 70 meV), increasing the active area (to the 1 mm² scale and beyond), and reducing the dark counts (below 10⁻⁵ counts per second). We will discuss the prospects to infuse SNSPDs into future experiments to search for dark matter and probe fundamental physics.

Primary authors: BEYER, A. D (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109-8099); SHAW, M. D (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109-8099); KORZH, B. (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109-8099); WOLLMAN, E. E. (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109-8099); LUSKIN, J (University of Maryland, College Park, MD 20742)

Presenter: SHAW, M. D (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109-8099)

Session Classification: WG4: Quantum and Superconducting Detectors

Track Classification: WG4: Quantum and Superconducting Detectors