

# Superconducting Nanowire Single Photon Detectors for Dark Matter Detection

*Friday 31 March 2023 16:15 (15 minutes)*

We will discuss the latest advances in superconducting nanowire single photon detectors, which are the highest performing detectors for time-resolved single photon counting from the UV to the longwave infrared. We will discuss recent progress in scaling active area and dark counts to enable new dark matter search concepts, and recent progress in reducing the energy threshold of the detectors below 100 meV. We will discuss the prospects for using this new technology for a variety of new experimental concepts in low-mass dark matter detection.

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**Session Classification:** SESSION 13: Direct detection: Technical Development-1 (CHAIR: Chamkaur Ghag - University College London)