Josephson Junction Quantum Electronics and ADMX

KATLEIAH RAMOS, University of Washington, ADMX COLLABORATION — Josephson junctions have numerous applications in quantum electronic devices. One specific application of Josephson junctions is used in the Axion Dark Matter eXperiment in the form of a highly sensitive SQUID microwave amplifier. I will review the basic physics of Josephson junctions as well as their characterization at both cryogenic and room temperatures. Preliminary data from Josephson foundry process developed at the Washington Nano-fabrication facility will be presented.

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