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Abstract for an Invited Paper
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Improving the Sensitivity of Photon and Athermal Phonon Sensors to Search for Dark Matter throughout the Mass Range from 50meV through 500MeV

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Substantial astronomical observations have established that approximately 25In this talk, well discuss the experimental requirements when searching for dark matter throughout the mass range from 50meV- 500 MeV. Well also discuss recent RD breakthroughs in photon sensor and athermal phonon sensor technology that will enable experiments that are being proposed using silicon, polar crystals, superfluid He, and periodic photonic materials as the detector material.