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Search for Lightly Ionizing Particles (LIPs) using CDMS-II detectors KUNJ PRASAD, Texas A&M University, College Station, CDMS II COLLABORATION, SUPERCDMS COLLABORATION — The Cryogenic Dark Matter Search (CDMS) collaboration employs germanium crystals instrumented with both ionization and athermal phonon sensors to perform direct searches for Dark Matter. Alternately, the low energy threshold allows search for fractional electromagnetic-charged particles, or Lightly Ionizing Particles (LIPs), moving at relativistic speed. The tower-like stacking of detectors allows background rejection by requiring the energy depositions to have sizes and locations consistent with coming from a straight fractionally charged track. We will present the results of the world's first search for LIPs with fractional charges between e/6 and e/200, and describe the improved sensitivity to LIPs-search achievable in the next phase of our program, SuperCDMS SNOLAB.

Kunj Prasad
Texas A&M University, College Station

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