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New CEvNS results from the COHERENT CsI[Na] detector
DANIEL PERSHEY, Duke University, COHERENT COLLABORATION — The coherent elastic neutrino-nucleus scattering (CEvNS) process was first observed in 2017 by the COHERENT collaboration using a low background, 14.6 kg CsI[Na] detector using a stopped pion source at the SNS. We cover COHERENT's ongoing effort to further measure CEvNS on a variety of nuclear targets, emphasizing new results from our CsI[Na] detector. CEvNS is a powerful tool to study nuclear structure, stellar astrophysics, and the nature of the weak force. We also discuss the role of this CsI[Na] data in constraining physics beyond the standard model. In particular, we discuss new constraints on neutrino non-standard interactions and sub-GeV dark matter produced at the SNS.

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