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**Searching for Neutrinoless Double Beta Decay in CUORE using Multi-Site events** SACHINTHYA WAGAARACHCHI, University of California, Berkeley, CUORE COLLABORATION — The Cryogenic Underground Observatory for Rare Events (CUORE) is a ton scale experimental search for  $0\nu\beta\beta$  decay on  $^{130}\text{Te}$ . The CUORE detector consists of 988  $\text{TeO}_2$  crystals operating as cryogenic bolometers at the Gran Sasso National Laboratory (LNGS) in Italy. Most current results from CUORE uses 372.5 kg.yr of analyzed exposure that has been collected over the past 3 years. While simulations suggests that about 11% of  $0\nu\beta\beta$  decay events will deposit energy in more than one location, these results come only from the analysis of single site events. In this talk we present preliminary analysis and updated sensitivity projections using multi-site events that deposit energy in more than one crystal, including the our techniques for estimating the correct background shapes and systematic effects.

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