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EXO-200 Detector Performance and Results SERERES JOHNSTON, University of Massachusetts - Amherst, EXO-200 COLLABORATION — Experimental searches for neutrinoless double-beta ($\beta\beta0\nu$) decay are motivated by the access this process gives to the absolute neutrino mass scale. This process is also sensitive to beyond standard model physics such as any Majorana nature to neutrinos and lepton number non-conservation. The 200kg Enriched Xenon Observatory (EXO-200) is an experimental program searching for $\beta\beta0\nu$ decay in a time projection chamber filled with over 100 kg of liquid Xenon enriched to 80% ^{136}Xe. The two neutrino decay mode ($\beta\beta2\nu$) has been found and a precision measurement made of the $2.165 \pm .016(stat) \pm .059(sys) \times 10^{21}$ year half life. The collection of both light and charge signals and the reconstruction of event positions for both single and multi-cluster events allow background discrimination on top of the already low background regime and the possibility of studying events with extended topologies. This talk will discuss the detector performance and recent results of the EXO-200 experiment.

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