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# **Muon Veto of the LEGEND Experiment**

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The Large Enriched Germanium Experiment for Neutrinoless  $\beta\beta$  Decay (LEGEND) is an experimental program dedicated to the search for the neutrinoless  $\beta\beta$  decay of <sup>76</sup>Ge. The experiment is being designed to reach a half-life sensitivity of  $10^{28}$  yr in the next experimental phase, LEGEND-1000, which requires a background rate of  $10^{-5}$  cts/(keV·kg·yr). Attaining such rare event rate requires a number of measures to reduce background due to more frequent phenomena. For the current experimental phase, LEGEND-200, a muon veto system uses a water-based Cherenkov detector to actively reduce background. It uses photomultiplier tubes as light detectors in a water tank covered with a reflective foil to increase the light collection efficiency inside the water volume. In this poster we present the operating principle and latest data analysis of the current muon veto and discuss plans for its future developments for LEGEND-1000.

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LEGEND

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