

# 31st International Symposium on Lepton Photon Interactions at High Energies



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## The status and the radioactive background control of JUNO's Water Cherenkov Detector

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The Jiangmen Underground Neutrino Observatory (JUNO), a 20 kton multi-purpose low background liquid scintillator detector, was proposed primarily to determine the neutrino mass ordering. To suppress the radioactivity from surrounding rocks and tag the cosmic muons, the central detector is submerged in a water Cherenkov detector (WCD), which is filled with 35 kton ultrapure water and equipped with 2400 MCP-PMTs. To lower the accidental background in the central detector, the radon concentration in the ultra-pure water should be reduced to less than 10 mBq/m<sup>3</sup>. This talk will introduce WCD's current status as well as the radon removal and online monitor system.

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