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## OSIRIS - A 20 ton liquid scintillator detector as a radioactivity monitor for JUNO

OSIRIS is a 20 ton liquid scintillator (LS) detector. Its purpose is to serve as a pre-detector for the 20 kiloton JUNO detector under construction in Jiangmen, China. It will monitor JUNO's LS for about six months during filling. The measurement exploits the fast BiPo time-coincidences of the  $^{238}\text{U}$  and  $^{232}\text{Th}$  decay chains. OSIRIS will also measure the rates of  $^{14}\text{C}$  and  $^{210}\text{Po}$  in the LS. The detector consists of two optically separated vessels. The inner vessel is an acrylic cylinder which will hold the LS. This inner tank and an array of 64 20" Hamamatsu PMTs will be submerged in water contained inside of the stainless steel outer vessel. The PMT readout design will use a novel approach with much of the electronics placed directly inside the base of each PMT, allowing for a high signal quality and a triggerless readout scheme.

### Mini-abstract

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### Experiment/Collaboration

OSIRIS / JUNO collaboration

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