

Background control strategies in the JUNO experiment

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- **JUNO: a massive underground neutrino observatory**
 - Determination of the neutrino mass ordering
 - 20 ktons of liquid scintillator detector
 - Excellent energy resolution (3% @1 MeV)
- **Extremely low accidental background required**
 - Detector material screening for low U-Th-K concentration
- **Use of different measurement techniques to certify the detector components**
 - HPGE spectroscopy, ICP-MS, NAA
 - Dedicated system and techniques have been developed for liquid scintillator radiopurity certification (requirements $< 10^{-15}$ g/g for U, Th, K)
- **Monte Carlo simulations are performed to evaluate the different background contributions**
 - Cross validation with independent codes
 - Estimation of the background singles rate and accidental coincidence count rate

Poster 102

