Contribution ID: **67** Type: **poster**

WITCH, status and perspectives

The WITCH set-up (Weak Interaction Trap for Charged Particles) that has been installed at ISOLDE/CERN combines a double Penning trap system to prepare and confine radioactive ions and a retardation spectrometer to probe the energy distribution of the daughter recoil ions [1]. The latter leads to the beta-neutrino angular correlation coefficient a, which contains information of the presence of scalar or tensor interactions in nuclear beta decay. The setup is now operational and the first recoil ion spectra have been measured in the decay of 124In. Although statistics were not sufficient and systematic effects have not yet been addressed in sufficient detail to extract weak interaction information, the charge state distribution of the recoiling 124Sn daughter ions could be determined in this experiment [2]. The setup has been upgraded (better vacuum, buffer gas purification, electro-polished electrodes) and further optimized to allow for measurements on 35Ar. A first such measurement has been performed and allowed the investigation of systematic and unwanted effects in the system. At present these data are being analyzed to collect information in preparation of longer measurements on 35Ar where useful physics information can be obtained.
[1] M. Beck et al., Nucl. Instrum. and Meth. A 503 (2003) 569
[2] S. Coeck et al., to be published

Is this an invited talk? (please answer yes or no)

No

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No

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Yes

Are you a student, postdoc or an attendee from an "emerging"country and would like to apply for financial support?

No

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