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Status of the WITCH experiment

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The WITCH experiment measures the energy spectrum of the recoil ions after nuclear beta decay. The radioactive ions are stored in Penning traps where they decay. The recoil spectrum is measured with a retardation spectrometer of MAC-E type. From the shape of the recoil spectrum the beta-neutrino angular correlation will be determined, with the goal to search for exotic interactions beyond the electroweak Standard Model.
A first recoil energy spectrum with low statistics has been measured with WITCH in 2006. In 2008 and 2009 the experimental set-up has been improved significantly. During this time also investiations of systemtatic effects progressed. A beamtime to test the improvements of the set-up is in progress. The status of the experiment and of the investigations of systematic effects will be presented.

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