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## **WISARD: The 0.1% challenge**

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The WISArD (Weak Interaction Studies with Argon Decay) experiment aims to determine the beta-neutrino angular correlation ( $a_{\beta\nu}$ ) in the super-allowed Fermi decay of  $^{32}\text{Ar}$ . The latter decays are sensitive probes to a possible scalar contribution in the weak interaction model. Deviation from the expected theoretical value will point to physics beyond the standard model.

The experiment itself relies on the coincidence detection of the beta particles of  $^{32}\text{Ar}$  and the beta-delayed protons emitted from the isobaric analogue state in  $^{32}\text{Cl}$ . If a proton energy resolution below 10 keV is achieved, a new limit for  $a_{\beta\nu}$  of the order of 0.1% is attainable.

To enhance the sensitivity, a new detection system is designed and installed inside the former WITCH superconducting magnet at ISOLDE/CERN. The protons and positrons from the decays will be guided by a strong magnetic field to two different detectors located on either side of a catcher foil, where the primary  $^{32}\text{Ar}$  beam is implanted. Details of the apparatus and the current status of the experiment will be presented.

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