



Friday 8 July, 10:25 – 10:45

Session 13: Neutrino properties I: searches for neutrinoless double beta decay

**Latest results from NEMO-3 and status of the SuperNEMO Neutrinoless Double-Beta Decay experiment**

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Neutrinoless double-beta decay is a uniquely sensitive probe of lepton number violating processes, and its observation may answer fundamental questions in neutrino physics, including the nature and the mass scale of the light neutrinos. Tracking calorimeter experiments have particular strengths, including the ability to search for neutrinoless double-beta decay amongst several different isotopes hosted in source foils. Full event reconstruction provides powerful background rejection capability, and the ability to disentangle different mechanisms for neutrinoless double-beta decay in the event of its discovery. This talk will give the latest results from the NEMO-3 experiment, including new double-beta decay measurements using the isotopes  $^{48}\text{Ca}$  and  $^{150}\text{Nd}$ . The current status and future prospects for the SuperNEMO experiment will also be presented.