Contribution ID: **525** Type: **Poster 0vbb**

Latest Results of NEMO-3: 100Mo 2νββ decay measurement and search for Majoron and exotic processes

The NEMO-3 detector was operated in the Modane Underground Laboratory (LSM) to search for the neutrinoless double beta decay (0νββ). The observation of this process would prove that the neutrino is a Majorana particle, i.e. identical to its antiparticle. This could explain the observed asymetry between matter and antimatter by letogenesis, as well as the smallness of neutrino masses.
In addition to the 0νββ search, NEMO-3 has measured the 2νββ process. The 2νββ half-life is determined and the angular distribution and single electron energies are measured.
Search for Majoron and exotic processes (bosonic neutrino and Lorentz invariance violation) are also performed.

Session and Location

Monday Session, Poster Wall #72 (Auditorium Gallery Right)

Poster included in proceedings:

yes

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Track Classification: Poster (participating in poster prize competition)