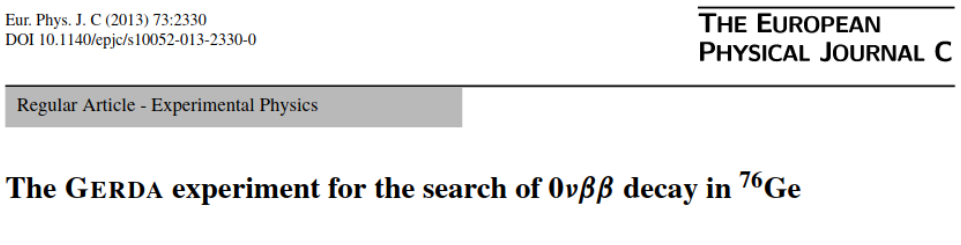
Journal Club- session: 3. Feb. 2020

Read the following publications about the neutrinoless double beta (0vßß) decay search experiment GERDA


RESEARCH

PARTICLE PHYSICS

Probing Majorana neutrinos with double-β decay


Eur. Phys. J. C (2013) 73:2330
DOI 10.1140/epjc/s10052-013-2330-0

THE EUROPEAN PHYSICAL JOURNAL C

Regular Article - Experimental Physics

The GERDA experiment for the search of $0\nu\beta\beta$ decay in ^{76}Ge

- What are prerequisits for BAU (Baryon Asymmetry in the Universe)? Skharov criteria?
- How does the existence of 0vßß-decay help to explain BAU?
- Which implications can be made for the neutrino mass-hierarchy with the current limits on the half-life of the 0vßß decay in ^{76}Ge? What would change if the half-life is found to be ~1e29 yr?
- What are the main advanteges of using germanium detectors? How do these help to tackle the main background components?