

## Search for Neutrino-less double beta decay with a high pressure Xe TPC detector

*jeudi 19 juillet 2018 10:55 (30 minutes)*

The neutrinoless double beta decay, if it happens, is a very rare phenomenon. A detector with mass scalability up to ton scale and strong background rejection power is necessary to search for it.

We are aiming to achieve these requirements with a high-pressure xenon gas time projection chamber. Our detector, AXEL, has high energy resolution and tracking pattern detection, which are important for background rejection.

We will report the detector performance obtained with the 10 L prototype detector and the status of the construction of the 180 L prototype detector.

**Auteur principal:** NAKAMURA, Kazuhiro (Kyoto University)

**Orateur:** NAKAMURA, Kazuhiro (Kyoto University)

**Classification de Session:** Future projects