Contribution ID: **314** Type: **Poster**

Double Beta Decay Excited State Transitions in 76Ge with GERDA Phase I

The GERmanium Detector Array, GERDA, is located in the Laboratori Nazionali del Gran Sasso in Italy and investigates double beta decays of 76Ge. GERDA finished its first phase of data taking last year and obtained an improved half-life limit for neutrinoless double beta decay with an unprecedented low background environment.

Apart from decays into the ground state of 76Se, also double beta transitions into excited states are of interest and provide valuable input for nuclear matrix element calculations. The detector array of GERDA allows for a coincidence analysis, when triggering on the de-excitation gammas of the excited states and thus further suppressing the background. In this poster a coincidence analysis technique searching for excited state transitions of 76Ge with GERDA Phase I data is presented.

Primary author: Mr LEHNERT, Bjoern (TU-Dresden)

Presenter: Mr LEHNERT, Bjoern (TU-Dresden)

Track Classification: Neutrinoless Double Beta Decay