Contribution ID: **27**   Type: **not specified**

Shell model calculations for the neutrinoless double-beta decay of 82Se

We perform a statistical analysis of several observables in the 82Se and 82Kr nuclei that we calculate using shell model methods. Following this analysis, we make predictions for the probable range for the value of the neutrinoless double-beta decay nuclear matrix element, which enters the equation for the decay rate. The statistical study performed is useful for testing the stability of the shell model calculations in the jj44 model space (consisting of the 1p3/2, 1p1/2, 0f5/2, 0g9/2 orbitals) by inducing random variations in the two-body matrix elements of the effective Hamiltonian.

Authors: Dr NEACSU, Andrei (International Center for Advanced Training and Research in Physics (CIFRA) - Magurele - Romania); HOROI, Mihai (Central Michigan University)

Presenter: Dr NEACSU, Andrei (International Center for Advanced Training and Research in Physics (CIFRA) - Magurele - Romania)

Session Classification: Research Talks of "Session 7"