



The Experimental Nuclear Physics Group at the IEM-CSIC (Instituto de Estructura de la Materia, Consejo Superior de Investigaciones Científicas) in Madrid is seeking physicists interested in a predoctoral contract JAEPRE23 (4 years), within the project “Study of Nuclear Shape Coexistence in exotic isotopes”.

Our group is heavily involved in the research activities at many leading experimental facilities in the field of nuclear physics such as RIBF@RIKEN (Tokyo, Japan), GSI/FAIR (Darmstadt, Germany), TRIUMF (Vancouver, Canada), ISOLDE (CERN, Geneva, Switzerland) etc. One of the main focus of our work is the study of the structure of neutron-rich radioactive nuclei in the region below 68Ni . This region of the Segre chart is known as an Island of Inversion, where the quantum orbitals fillings are inverted. This also gives rise to the unique phenomenon of shape coexistence.

The PhD work includes experimental activity at a leading international research facility, namely TRIUMF, in Canada, which will be performed within an established international collaboration. Funded research stays at TRIUMF are possible and desirable. English communication skills are therefore mandatory while experience in computation (Geant4, Root, C++ etc.) is advantageous. In case of interest please contact Bruno Olaizola (Bruno.olaizola@csic.es). In this PhD project, the successful candidate will be involved in the realization and analysis of experiments performed with the GRIFFIN, the state-of-the-art gamma-ray spectrometer. The candidate will also have the opportunity to participate in all other research endeavors of the group, including experiments at other experiment facilities such as CERN. At a later stage, the student will be expected to help mentor master and more junior students.

