

Dep. Física Atómica, Molecular y Nuclear
Universidad de Sevilla



SEMINAR ANNOUNCEMENT

***“Theoretical investigations of exotic nuclei using
Coulomb dissociation”***

by

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Abstract

We now know that nuclei close to the drip lines are queer and uncanny in their behavior as compared to their siblings found in the valley of stability, and are, therefore, called exotic. I will talk about a subclass of these exotic nuclei (called nuclear halos) and their Coulomb breakup. We have used a fully quantum mechanical theory of finite range distorted wave Born approximation (FRDWBA) for our nuclear reaction studies. The theory can competently take the projectile deformation into account and only requires the projectile ground state wave function as an input. I will discuss its applications to the cases of ^{34}Na and ^{19}C and their relevance in nuclear astrophysics, as to the path of nucleosynthesis they might lead to.