



**PhD Call for Applicants**  
**in**  
**Experimental**  
**Nuclear Astrophysics**  
**(June 1, 2016)**



A call for a PhD contract is open at IFIC (CSIC- University of Valencia) in the framework of the ERC funded consolidator project **HYMNS: High-sensitivity Measurements of key stellar Nucleo-Synthesis reactions**. This project aims at the development and implementation of a novel detection technique for the measurement of stellar neutron capture rates relevant for the slow (s-) process of nucleosynthesis.

The post is based in the Gamma and Neutron Spectroscopy Group (<http://webgamma.ific.uv.es/gamma/en/>) at IFIC (<http://ific.uv.es>). The successful candidate will develop his PhD work in advanced instrumentation for  $\gamma$ -ray detection optimized for its application to the measurement of neutron capture cross sections at CERN n\_TOF (Geneva). This experimental work comprises *i*) the development of advanced radiation detectors with  $\gamma$ -ray imaging capability, so-called i-TED, *ii*) first proof-of-concept measurements at CERN n\_TOF and *iii*) involvement in the measurement of neutron capture rates of astrophysical interest for s-process nucleosynthesis in massive stars. Developments, data taking and analysis, physics and astrophysics interpretation will be undertaken as full PhD activities.

Post	Forefront research in experimental nuclear physics Competitive salary
Requisites	Master degree Availability to travel Long stays abroad, mainly in Switzerland Good level of English
Skills	Physics studies (nuclear, electronics or theory) Initiative Good communication skills
Closing date	July 10 <sup>th</sup> , 2016
Send:	CV with two referee contacts Academic record
To:	Dr. C. Domingo-Pardo <a href="mailto:domingo@ific.uv.es">domingo@ific.uv.es</a>
Subject:	HYMNS PhD application [your family name]

Informal contacts are welcome ([domingo@ific.uv.es](mailto:domingo@ific.uv.es)).

**Post available to start in autumn 2016**