

Curriculum Vitae

Francisco J. Carrera

General Summary

My academic career started at the Universidad de Cantabria (UC) where I got my Ph. D. in June 1992 under the supervision of Prof. Xavier Barcons. The subject of my Thesis was the study of the properties of the Cosmic X-ray Background. I have since held post-doctoral positions in research centres in the UK and Spain until I got my current position as Profesor Titular de Universidad (University Lecturer) in the UC in February 2000, becoming then a member of the Instituto de Física de Cantabria (IFCA, joint centre of the Spanish Council for Scientific Research -CSIC- and the UC). During this time I have performed extensive research and teaching activities, with an important component of activities dedicated to the public understanding of science (dissemination) and academic management.

In broad lines, my research has been mainly on multi-wavelength extragalactic Astronomy, especially Active Galactic Nuclei (in particular the obscured ones) and their influence on their host galaxies

Research

In bibliometric terms my research career can be summarised (ADS) in 117 research articles in Astronomy journals virtually all of the first quartile, with more than 4000 citations (Hirsh index $h=39$), 60 further publications in conference proceedings and 37 more contributions to conferences (most of them international). All this activity has evaluated objectively with the four "tramos de investigación" (six year periods) that are possible for me at the moment (1989-2012) and my "acreditación" (certificate the have reached the level to bid for a University Professorship) in September 2012.

Mission proposals

I have participated actively in scientific definition studies for several proposals for future X-ray spatial observatories (XEUS/IXO, COSPIX, NHXM...) and in the coordination of a team devoted to the implementation of software for the processing and analysis of spatial cryogenic X-ray detectors (EURECA). Among these proposals Athena merits a special mention: the European Space Agency (ESA) approved the topic "The hot and energetic Universe" for its second large mission (L2) within its scientific programme "Cosmic Vision" and, in June 2014, selected Athena as its implementation. I have played a significant role in both proposals and I am currently co-chair of the Topical Panel "Understanding the Build-up of Supermassive Black Holes and Galaxies" appointed by ESA's Athena Study Science Team. I also participate in the Athena Community Office.

Research projects

All this activity has been funded continuously through competitive national and international research projects. I have been PI of seven of those projects, including ARCHES (FP7 SPACE) of which I am local (UC) coordinator.

Service in committees

I am a member of the Sociedad Española de Astronomía and Fellow of the Royal Astronomical Society. I act regularly as referee for international journals, I participate in international Time Allocation Committees for spatial observatories (XMM-Newton,

Suzaku), in Science and Local Organizing Committees for conferences, and in panels to evaluate research projects. In addition, I have been a member and have chaired the Gran Telescopio Canarias Users Committee and the Science Advisory Committee of the European Virtual Observatory, both for longer than initially appointed. Finally, I have been a member of the Steering Group of the Survey Science Centre consortium of the XMM-Newton observatory since 2004.

Teaching

During all these years I have taught regularly (objectively recognized with five "tramos de docencia" -five year periods- between 1989 and 2013, the maximum number currently possible for me), from my initial collaborations as a PhD student with a "Formación de Personal Investigador" fellowship and with post-doctoral positions, to my becoming a University Lecturer at the "Departamento de Física Moderna" of the UC. In this last period I have taught numerous under- and post-graduate courses, both on compulsory and optional subjects and on the Physics and Mathematics degrees.

In addition, I created and initiated and I am coordinator of "Astronomía General", "Observational Astronomy", "Astronomía" (under-graduate), "Métodos Estadísticos en Investigación Científica", "Técnicas Instrumentales en Astrofísica" and "Estadística" (post-graduate).

Supervision of PhD and Bsc Theses

In total I have supervised one Ph. D. Thesis alone and five more in collaboration. Almost all the corresponding doctors hold currently post-doctoral positions in Astronomy and I continue collaborating fruitfully with them. I am currently supervising another Ph. D. Thesis alone (which I expect that will be finished by end of 2017) and I started co-supervising another one at the beginning of 2014. I have also supervised one M. Sc. Thesis and two B. Sc. Theses in Physics and another one in IT Engineering (adapting to the Virtual Observatory an astronomical application originally developed by me). I am also serving regularly in BSc panels.

Academic management

I was Vice-director of IFCA between 2004 and 2008. In April 2007 I started as director (formally appointed on November 19, 2008) of the "Observatorio Astronómico de Cantabria" (a facility of the "Consejería de Medio Ambiente" of the regional government of Cantabria), then just built. I designed and started its scientific, observational, didactical and dissemination activities. I served as its director until September 2009.

Dissemination

I have combined all the previous aspects with an intensive dissemination activity: I have given many talks about Astronomy in High Schools and amateur astronomer societies, organised and taught University Summer Courses in several sites (Sigüenza, Santander and Polientes), and I have collaborated in the "Campus de Física" for High School students (2000 to 2012). Additionally, I was the point of contact in the UC for the International Year of Astronomy 2009. I also collaborate regularly in the dissemination activities organised by IFCA (Weeks of Science, Nights of Researchers, exhibitions...).