

# Status of Women in Physics in Spain

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**Abstract.** In this paper we present the activities of the Spanish Women in Physics group during the last three years. We describe the relevant equality measures adopted by the Spanish Government and its impact on the women status in the scientific field. Finally, we present statistical data that are updated from the last IUPAP Conference. Data exhibit the same trend as those presented at the last conference: the percentage of women at the different staff levels at the university and at the CSIC remains approximately constant (about 32%). However, at the CSIC the increase in the number of available posts has given rise to an increase in the number of women at the top positions although the proportion among women and men remains equal. The most remarkable data at the Spanish university is the percentage of 50% related with women that were hired at the new professor category called PhD contract.

**Keywords:** Women status, country situation.

## INTRODUCTION

During these last years the Spanish Government has adopted several equality measures (March 8th, 2005) and the Spanish Parliament approved an important law in 2007, to reach the equality between women and men. All these facts, alongside with the recommendations of the Women in Science Unit of the European Commission, have given rise to a debate in a country where, for the first time in History, the number of women in the Government exceeds the number of men.

From the last conference<sup>1</sup>, the Spanish Women in Physics group have developed several activities, being the most noticeable:

-Invitation of scientific women to give lectures at the Royal Spanish Physical Society, RSEF, Conferences: A woman has been included among the plenary speakers in the last three general Conferences of the RSEF hold in 2003, 2005, 2007.

-Inclusion of specific sessions focused on gender issues in Scientific Conferences in each RSEF Conference: the group has organized a regular session entitled “Women in Physics” to discuss about problems of women working in Physics and panel discussions formed by academy authorities.

-Increase the presence of women in scientific journals: In 2006 the second number of the Journal of the Society, “Revista de Física”, was dedicated to women in Physics. All the papers were written by women and the different sections addressed women topics (e.g. Section of History, an article about the first female member of the society; Medical Physics, an article about mamography; Section of Society, articles about the status of women in Physics in the Spanish Universities and public research organizations). Fifteen pictures of women physicists made up the front cover. The article ‘Dimension of Gender in Physics’ was included in the book entitled “The second row: Gender Imbalance in Science and Technology” published in 2006.

- Elaboration of the Women in Physics web page to be included in the general web page of the Spanish society.
- Dissemination of statistical data at different forum.

The group has been less successful with the scientific women nominated to be awarded during these two years.

## WOMEN SITUATION

In spite of the positive actions developed by the Spanish Government and Parliament, things move slowly in Science. Women are always under-represented in the decision-making panels (93% of the University’s authorities are male scientists), in the funding, and hiring commissions. In addition, no women are nominated, let alone awarded, for scientific prizes. Although the problem is now recognized, solutions to overcome problems such as women promotion and under-representation need constant actions from the women groups at the different

institutions. By Law, at least 40% of the evaluation panels to hire and promote scientific personnel have to be women. However, at the University, this percentage is reduced to 33% and to 20% respectively for the recently created hiring and advisory panels. These percentages are higher in the corresponding commissions of the Spanish Research Council (CSIC). In this case to achieve this required percentage is a difficult task due in part to the low number of women in some levels or/and scientific fields. The law has also established the number of research projects leadered by women that has to be supported but we don't have data yet on this issue. It is expected that the recently (2007) created Women Science Unit plays an important role for the laws to be correctly applied.

In Table 1, the percentage of women is given for all the fields and for the physics departments at the universities as well as the number of students<sup>2</sup>. In average, 35% of the total professors are woman, remaining this number practically constant during the last three years. This figure decreases to a 14.3% when the high position (CU) is considered and increase up to 41.4% at the lower level. There is a remarkable data that is the percentage of 50.5% for women at the professor category of CD (Contratado Doctor). This category of permanent professor was recently created and is the highest for the professors under contract. Data for the physics professors are no completed for all the categories since it is difficult to achieve statistical data for the different scientific fields. If only women are considered, the percentage of women at the high level position represents 7% of the total of women while this number is 22% when the men are considered. This makes evident the need of positive actions.

**TABLE 1.** Percentage of women at the different levels: Undergraduate, PhD and Professors: Civil servant and professors under contract at the public Spanish universities

Levels	All Scientific Fields <sup>2</sup> (%)	Physics (%) <sup>1</sup>
Undergraduate	54,3	33,1
PhD	49	15
Prof. Civil Servants	33.5	21
Catedráticos de Universidad (CU)	14.3	5,6
Titulares de Universidad (TU)	36.6	26,7
Catedráticos de Escuela Univer. (CEU)	33.0	---
Titulares de Escuela Univer. (TEU)	41.4	---
Prof. Under Contract	36.8	23,5
Contratado doctor (CD)	50,5%	---

The percentage of women at each staff level of the CSIC has slowly increased from 1970, remaining approximately the same from 1993 to now for the lowest levels. The percentage corresponding to the highest level has experimented the most important increasing during these years as a consequence of both the rise of the available positions and a higher number of women in the hiring and promoting panels. This improvement is less remarkable in the Physics Science and Technology area due in part to the low number of women in this area.

**TABLE 2.** Evolution of the percentage of women at each staff level of the CSIC for the Physic Sciences and Technology fields<sup>3</sup>.

Levels	Physics Science and Techno.		Science and Techno. of Materials	
	2005 <sup>1</sup>	2007 <sup>3</sup>	2005 <sup>1</sup>	2007 <sup>3</sup>
Professor of Research	5.7	6.2	6.0	12.4
Scientist Research	14.1	14.3	45.6	37.8
Scientist	27.3	26.1	40.4	42.6

(1)

## REFERENCES

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