

Activities of the Sociedad Española de Astronomía during the International Year of Astronomy 2009

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Abstract

In this paper we summarize the activities carried out by the Spanish Astronomical Society during the International Year of Astronomy 2009. The Society contributed with several key projects to the overall pool of actions coordinated from the National Node, trying –and achieving– to reach as many people as possible through the publication and free distribution of the book “Astronomía made in Spain” and a collaboration with the digital edition of *El País* during the entire year 2009. Other activities and by-products are also described.

1 Preparing the ground for the IYA 2009

The Spanish Astronomical Society (Sociedad Española de Astronomía, SEA hereafter) started preparing itself for the International Year of Astronomy (IYA 2009) well in advance. During the VIII Scientific Meeting of the SEA held in Santander in July 2008 we had the opportunity to present the projects we had in mind [1]; some of them were quite mature already at that moment, some others were shaping themselves in the second half of 2008.

The activity really started almost one year before that, back in the autumn of 2007. We participated in the design and development of the IYA 2009; José Miguel Rodríguez Espinosa, former SEA President and Emilio Alfaro, the current one, were members of the Executive Committee and the Society decided to appoint the author of this paper as its *Sidereus Nuncius* in the National Node, coordinated by Montserrat Villar.

2 “Astronomía made in Spain”

The SEA has among its members more than 80% of the Spanish astronomers (staff, post-doctoral researchers, PhD students), therefore one of the key goals we had in mid was the



Figure 1: The cover and one of the pages of the book “Astronomía made in Spain”.

intention of disseminating the research work done in Spain by the professionals, reaching as many people as possible. This would complement the tasks of other members of the Node, namely, amateur astronomers, planetariums, science museums, teachers, etc.

In order to do that, we had the idea of publishing a book summarising the history of modern Spanish Astronomy through the personal views of the researchers themselves through their discoveries. Papers published in *Nature* and *Science* were chosen as samples of the work that has propelled Astronomy in Spain to the healthy stage we enjoy today. Those two publications were awarded the 2007 Prince of Asturias Prize for Communication and Humanities. As it was expressed in the resolution of the committee: “. . . both journals represent the most reliable channel of communication that the international scientific community has today for reporting, after a meticulous and impeccable selection process, the most significant research and discoveries in very diverse scientific fields, and at the same time, disseminate the most elevated theories and facts, whilst combining rigour and clarity. *Science* and *Nature* are indispensable sources of information for specialized journalism in every country. For over a century, they have promoted and disseminated mankind’s great scientific conquests and thus have brought science closer to life.”

We presented in the first edition of the book (see Fig. 1), that appeared in March 2009, 34 conversations with the Spanish astronomers who had published as first authors in *Nature* and *Science* in the last 30 years. The same questionnaire was sent to each researcher. They were asked to describe in the simplest possible way the context and scope of their discoveries and also to provide some personal appreciations or anecdotes. When an astronomer had more than one publication, he or she was asked to choose one, or to summarise the results of several or all of them. At the end of each conversation the reference of the paper (or papers) treated in the text can be found. We placed the contributions in chronological order according to the publication date of the papers, to give a general perspective of the way the different branches have evolved. There are in the book very different styles of writing, long

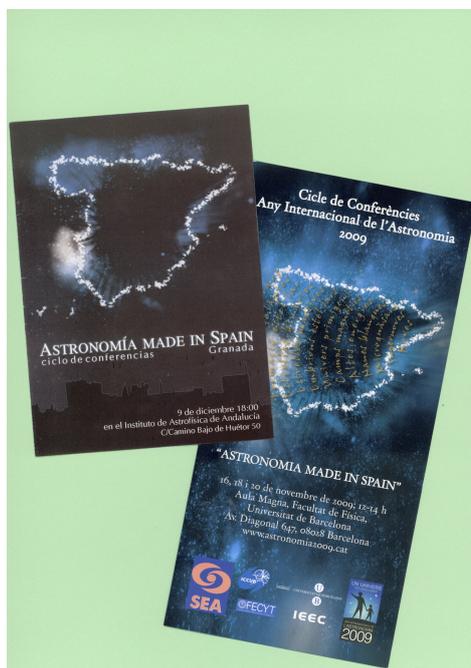


Figure 2: Announcements of the cycles “Astronomía made in Spain” organized in Granada and Barcelona.

texts in some cases and more laconic ones in other occasions, as well as different complexity levels when describing the scientific topics. Corrections and editing of the original texts were kept to a minimum to leave the spirit of each contribution as untouched as possible. Emilio Alfaro and the author of this paper were the editors of the book.

The first edition had 4000 copies, always free of charge. They were distributed in 2009 among the attendants to several cycles of talks given by some of the astronomers who contributed to this initiative. The book was presented at the beginning of July 2009 in Valencia, in the *Palau de la Música*, during an event organized by the University and Observatory of Valencia that included a concert where the “Astronomical pictures for an exhibition” was performed. Talks around the topics of the book were organized at the Universities of Burgos, Murcia, Barcelona, Santander (these two in collaboration with the Spanish Research Council) and at the *Instituto de Astrofísica de Andalucía*, in Granada (see Fig. 2). The book was also sent and distributed during different events organized by amateur astronomers. The *Fundación Española de Ciencia y Tecnología* (FECYT) gave us financial support for the printing of the book and the organization of some cycles of talks.

In 2010, the SEA issued a second edition, this time only in electronic format, accessible through the SEA web page, including contributions from authors who had published in *Nature* and *Science* in 2010 and also correcting one regrettable omission by the editors who missed one paper during the searching of material in the preparation phase of the book. An edition in English is being prepared at the time of writing this paper.



Figure 3: Screenshot of the web page of elpais.com devoted to Astronomy in 2009.

3 The collaboration SEA – elpais.com

The managers of the digital edition of *El País*, offered us the possibility of opening and maintaining a section devoted to Astronomy to celebrate the IYA 2009. This endeavour, although challenging, turned out to be a real success and one of the landmarks in the outreach activities of the Society.

The following “boxes” and coordinators were active in the section: astronomical galleries (Alvaro Labiano), games (Magdalena Hernán), “A window to the sky” (an interactive infography showing the night sky every month, Alejandro Cristo), “The astronomical object of the week” (Luz Marina Hernández), an astronomical glossary (Julia Alfonso, David Galadí, Carmen Morales), articles on history or biographies (Rodrigo Gil, José Cantó), astronomical articles (Emilio García), “The ESA corner” (Mónica Salomone), “The night sky of the month” (José Ripero). The project was coordinated by the author of this summary.

The section appeared in elpais.com on 17 January 2009, in coincidence with the official opening of the IYA 2009 and closed down at the end of December (Fig. 3). To our knowledge, this was the first time that a section devoted to an individual discipline of science was active during a whole year in a digital newspaper in Spain. Apart from the weekly or monthly contributions, more than 120 articles, six galleries with commented images, four digital chats with the readers and a glossary with 240 astronomical concepts were the legacy of this project.

According to the information provided by *El País*, the web page was accessed 465,179 times during 2009 and had 290,320 individual users, with an steady average of around 40,000



Figure 4: Cover of the book “Cien conceptos básicos de Astronomía” published by the SEA in collaboration with the Instituto Nacional de Técnica Aeroespacial.

visits per month. The enthusiastic collaboration of more than 100 SEA members, together with the help of some other people, professionals and amateurs, who offered us to give a hand was, no doubt about, the key to the success of this project.

4 “Cien conceptos básicos de Astronomía”

In the previous section we mentioned that one of the “boxes” in the special at elpais.com was a glossary of astronomical terms. The definitions were written by two dozens of SEA members and appeared in three installments in the digital edition, completing, from A to Z, a very useful dictionary for people interested not only in the observation of the sky but also in the physical mechanisms involved in all kind of astronomical objects.

In the last quarter of 2009, with the financial help of the *Instituto Nacional de Técnica Aeroespacial* (INTA), it was possible to publish a selection of 100 concepts from the glossary as a book, entitled “Cien conceptos básicos de Astronomía” (Fig. 4), printing 5000 copies that have been widely distributed free of charge.

The screenshot shows the website interface for the Spanish National Node of the International Year of Astronomy 2009. The main banner reads "AÑO INTERNACIONAL DE LA ASTRONOMÍA 2009" and "EL UNIVERSO PARA QUE LO DESCUBRAS". Below this, there are three featured sections: "Tema del mes" (Doce Miradas al Universo), "Imagen del día", and "El Legado". A search bar and user login fields are present. On the left, a sidebar lists various categories and a monthly theme calendar. The main content area features a video interview titled "ENTREVISTA" and a "REPORTAJE" section.

Figure 5: Screenshot of the section of the Spanish National Node web page corresponding to the project “El tema del mes”.

5 Contribution to other projects during the IYA 2009

The three projects mentioned above were initiatives totally coordinated by the SEA. However, other projects carried out during the IYA 2009 requested collaboration from the Society. Two of them had an active participation of SEA members: “El tema del mes” (“The theme of the month”), and “Una universidad, un universo” (“A university, a universe”).

“El tema del mes” was a project coordinated by Emilio García (Instituto de Astrofísica de Andalucía), residing in the official web page of the Spanish Node (Fig. 5). The aim was to develop twelve topics, one per month, in a 20-minute interview to an astronomer filmed on video, edited afterwards to split it in short shots, and supported by a written text with images and hyperlinks to web pages related to the topic. The SEA was approached to provide teams composed by three or four people, experts in each field, who could develop each topic. A pool of some 40 astronomers volunteered to participate in the project which covered fields such as archaeoastronomy, planetology, minor bodies, stellar physics, galaxies, cosmology, space missions, radioastronomy, high energy astrophysics, astrobiology and the day-to-day work of an astronomer. Very recently the Spanish TV public corporation *Radiotelevisión Española* (RTVE) has asked the coordinator of the project permission to broadcast the interviews as a series of documentaries in “La aventura del saber”, a program in “La 2”, one of its channels. This is an interesting extension of the project and a very efficient use of good-quality material for outreach purposes.

“Una universidad, un universo”, was coordinated by Ana Ulla, lecturer at the University



Figure 6: Screenshot of the web page of the project “Una universidad, un universo” showing the interacting map of talks.

of Vigo. She undertook an idea we started cooking during one of the first preparatory meetings back in 2007: to organize talks about Astronomy in every Spanish university that had a Department of Astrophysics, or at least an astronomer among their staff who could be in charge, without too much trouble, of coordinating that activity in his or her university. That idea was widened and turned out to be a very ambitious project: the organization of individual talks or cycles on Astronomy in *every single* Spanish university, irrespective of its character and ideology (i.e. public, private, religious. . .). Although the endeavour was really hard, it was possible to have a coordinator in almost all universities and a large proportion of the speakers were SEA members. The outcome of the project (see Fig. 6) was a total of 244 talks given by 171 astronomers in 49 universities.

The SEA was also involved in other projects, such as the calendar designed by the Spanish team of “She is an astronomer” or a glossary of astronomical concepts published in *valenciano*, the vernacular language of the East of Spain.

6 Summary

The International Year of Astronomy 2009 was a challenging opportunity to bring Astronomy close to people. Hundreds of activities were organized worldwide and Spain was not an exception. Without being self-indulgent we can say that the whole pool of projects coordinated by the National Node and organized by each party was a success. In particular, the Spanish Astronomical Society contributed, with the help and enthusiasm of a large number

of its members, to that success. That commemoration also proved that people like science if we are able to communicate and put it in a language that is understandable and simple. We have to take advantage of the stamina and the momentum we have gained and keep making the effort of involving the whole society in our day-to-day research.

Acknowledgments

I was fortunate to coordinate, on behalf of the SEA, the projects that have been described in this paper. However, none of the goals we reached had been possible without the collaboration and effort of many people. I am very grateful to all SEA members who volunteered to work, stealing some hours to their sleep. I am also indebted to some other people who do not belong to SEA but were also willing to collaborate. The financial support of FECYT and INTA to carry out the projects is acknowledged. Finally, our gratitude to Montserrat Villar for coordinating the activities of the Spanish Node.

References

- [1] Montesinos, B., 2010, in *Highlights of Spanish Astrophysics V*, eds. J.M. Diego et al., Springer-Verlag, p. 237