

## Chat with a Woman Astronomer. A pioneery activity organised by SEA's Comisión Mujer y Astronomía to commemorate 11F.

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### Abstract

Since 2015, February 11th commemorates the *International Day of Women and Girls in Science*, as set up by the United Nations. Such vindication is fully supported by the Spanish Astronomical community, represented by the Spanish Astronomical Society (SEA) and, particularly, by its *Woman and Astronomy Unit* (Comisión Mujer y Astronomía, CMyA). *Chat with a woman astronomer* was organised by CMyA on February 7th, 2018 with the aim at approaching the role of women in Astronomical research to the general public. During almost the full day, women astronomers were constantly available through an online platform to chat about their job as professional astronomers or their experience as women working in science.

## 1 11F: International Day of Women and Girls in Science

In 2015, the United Nations established that the *International Day of Women and Girls in Science* will be celebrated on February 11th (11F) every year. Since September 2016, focused activities are organised in Spain under the umbrella of 11defebrero.org, in order to approach the reality of women working in science and promote scientific vocation among young girls. This initiative is supported and spread out by a non-profit-group of researchers and science communicators.

The Spanish Astronomical Society (SEA), represented by its Woman and Astronomy Unit (Comisión Mujer y Astronomía, CMyA), shares the worrisome behind 11F and supports the organisation of activities helping to 1) recognise the role of women astronomers; and ii) disseminate the message that Astronomy is a career suitable for women as well as for men.

In February 2017, CMyA organised two activities within the framework of 11F: 1) the

publication of a panel including pictures of women astronomers, either Spanish or working in Spain; and 2) *Chat with a Woman Astronomer*, a full-day activity carried out on February 7th, consisting of an online platform through which anyone, regardless of gender or age, could connect and talk to a professional woman astronomer.

## 2 Chat with a Woman Astronomer: the activity

Chat with a Woman Astronomer was organised through the online chatting platform PureChat in its free version. PureChat allows to set up a group of *chatters* with access to all possible chats requested through an external link, which was disseminated by the SEA through its usual channels and mailing list. An automatic message is received by the external user, asking for patience while a woman astronomer is connecting to his/her/their chat. As soon as one chatter accepts the chat, the header of the chatting window changes to show the name and photo of the woman astronomer. Chats may last for as much as time as desired by both chatter and external user. We note that no information from the user is previously requested; while it is possible to create an input form through PureChat, we decided to minimise barriers between the user and chatter.

CMyA made a call looking for volunteer woman astronomers to participate in this activity, which was very well accepted by the astronomical community. The final calendar shown in Figure 1 includes 32 women astronomers, spread in 30-minutes slots covering the full February 7th day from 8am to 12pm (time of Mainland Spain).

## 3 Some statistics and results

Chat with a Woman Astronomer proved as a huge success: 513 chats were answered during the day. The chat was definitively closed at 12:30pm, thus the activity lasted for 16.5 hours in total. We must note that the pioneery nature of the activity prevented us from disseminating it as much as we could: such high demand despite of the limited advertising indicates the great interest of the Spanish people in Astronomy.

Figure 2 shows the amount of chats requested along the day: the red histogram corresponds to answered chats, while the remaining represent missed chats. The grey histogram indicates chats that were closed in <1 minute of waiting time; the majority of these cases correspond to disconnections or non-desired chats, i.e., users that were curious but did not have true intention of chatting. The yellow histogram therefore represents the actual distribution of unanswered chats, which amounts to 44.

We received chat requests from a variety of people of all ages and gender. The morning hours were mostly occupied by students between 10 and 17 years old at school. Teachers from science and computing lessons allowed the students to connect, both in groups or individually. Individual cases caused some saturation as they implied many simultaneous chat requests. For this reason, many women astronomers connected for longer times than their planned 30-minutes slots, and they even reconnected several times during the day to help answering chats. Each chatter answered between 5 and 68 chats, with a maximum of 20 simultaneous chats.



# Charla con una Astrónoma

Actividad organizada por la Comisión Mujer y Astronomía de la Sociedad Española de Astronomía  
 El 7 de febrero ¡anímate a charlar con una astrónoma a través de este link:  
<https://app.purechat.com/w/11FMujerYAstro!>



8:00 - 8:30	Asunción Fuente	Observatorio Astronómico Nacional (Madrid)	Formación estelar, discos protoplanetarios
8:30 - 9:00	Olga Suárez	Observatorio de la Costa Azul (Francia)	Física Estelar
9:00 - 9:30	Consuelo Cid	Universidad de Alcalá (Madrid)	Heliología y Meteorología Espacial
9:30 - 10:00	Minia Manteiga	Universidad de La Coruña (Galicia)	Física Estelar, Inteligencia Artificial
10:00 - 10:30	Almudena Zurita	Universidad de Granada (Granada)	Regiones HII, galaxias espirales
10:30 - 11:00	Julia de León	Instituto de Astrofísica de Canarias (La Palma)	Cuerpos menores del Sistema Solar
11:00 - 11:30	Beatriz Ruiz	Instituto de Astrofísica de Canarias (Tenerife)	Cosmología
11:30 - 12:00	María Santos-Lleó	ESAC (Madrid)	Núcleos activos de galaxias, rayos-X
12:00 - 12:30	Amelia Ortiz	Observatorio de Valencia (Valencia)	Divulgación a público con diversidad funcional
12:30 - 13:00	Lourdes Verdes-Montenegro	Instituto de Astrofísica de Andalucía (Granada)	Medio interestelar, radiotelescopios
13:00 - 13:30	Naiara Barrado-Izagirre	Universidad del País Vasco (País Vasco)	Atmósferas planetarias, Júpiter
13:30 - 14:00	Sara Cazzoli	Instituto de Astrofísica de Andalucía (Granada)	Núcleos activos de galaxias
14:00 - 14:30	Montserrat Villar	Centro de Astrobiología (Madrid)	Supervivencia galáctica
14:30 - 15:00	Mar Mezcua	Instituto de Ciencias del Espacio (Barcelona)	Núcleos activos de galaxias, rayos-X
15:00 - 15:30	Pepa Masegosa	Instituto de Astrofísica de Andalucía (Granada)	Núcleos activos de galaxias
15:30 - 16:00	Cesca Figueras	Universidad de Barcelona (Barcelona)	Astrometría, Vía Láctea
16:00 - 16:30	Judith Palacios	Universidad de Alcalá (Madrid)	Física Solar
16:30 - 17:00	Maite Ceballos	Instituto de Física de Cantabria (Cantabria)	Instrumentación de rayos-X
17:00 - 17:30	Mercedes Mollá	CIEMAT (Madrid)	Evolución química de galaxias
17:30 - 18:00	Luisa Lara	Instituto de Astrofísica de Andalucía (Granada)	Sistema Solar, cometas
18:00 - 18:30	Celia Sánchez	ESAC (Madrid)	Rayos-X, estrellas de neutrones
18:30 - 19:00	Isabel Márquez	Instituto de Astrofísica de Andalucía (Granada)	Núcleos activos de galaxias
19:00 - 19:30	Miriam García	Centro de Astrobiología (Madrid)	Estrellas masivas
19:30 - 20:00	Josefina F. Ling	Observatorio Ramón María Aller (Galicia)	Sistemas estelares dobles y múltiples
20:00 - 20:30	Amelia Bayo	Universidad de Valparaíso (Chile)	Formación estelar y planetaria
20:30 - 21:00	Helena Domínguez-Sánchez	Universidad de Pennsylvania (Estados Unidos)	Formación y evolución de galaxias
21:00 - 21:30	Nuria Álvarez Crespo	Universidad de Turín (Italia)	Galaxias con núcleos activos
21:30 - 22:00	Isabel Rebolledo	Universidad Autónoma de Madrid (Madrid)	Sistemas planetarios
22:00 - 22:30	Mayra Osorio	Instituto de Astrofísica de Andalucía (Granada)	Formación estelar y planetaria
22:30 - 23:00	Marina Rodríguez	Universidad Autónoma de Madrid (Madrid)	Regiones HII, formación estelar
23:00 - 23:30	Patricia Chinchilla	Instituto de Astrofísica de Canarias (Tenerife)	Enanas marrones y exoplanetas
23:30 - 24:00	Adriana de Lorenzo-Cáceres Rodríguez	Instituto de Astrofísica de Canarias (Tenerife)	Galaxias con barras, poblaciones estelares

Horario de la Península  
(este calendario está sujeto a ligeras modificaciones)

Figure 1: Calendar of the Chat with a Woman Astronomer activity, which took place on February 7th, 2018 from 8am to 12pm. 32 Spanish or Spanish-based women astronomers volunteered to be available to chat online about their research or their experience as women working in science.

The great success of the activity is hugely due to the friendly willingness of the volunteers.

We should also note that most people expressed their interest in having activities like Chat with a Woman Astronomer more often, which they found very positive and useful.

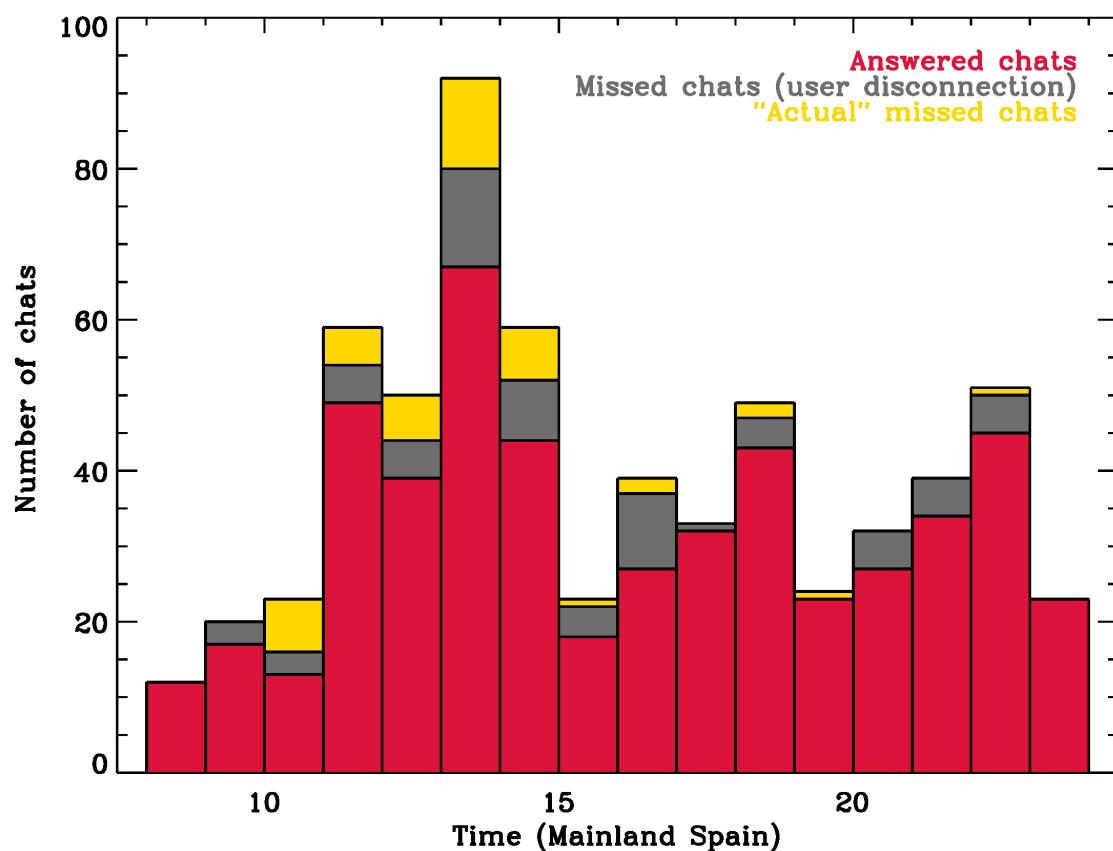


Figure 2: Answered and missed chats along the day. The 513 answered chats are shown in red, while yellow and grey histograms account for actually missed and not-true chats, respectively. Not-true chats correspond to premature disconnections by the users.

## 4 Some comments from the chatters

While we cannot keep record of the conversations due to legal protection of personal data, the Chat with a Woman Astronomer was a rewarding activity not only for the public but also for the chatters; here we transcribe some comments from the volunteers.

*I was surprised by the fact that many questions came from very young girls and boys in high school. They were very keen in learning how to become professional astronomers. They showed passion and happiness of being able to talk to us and ask questions. Very beautiful experience!*

*It has been amazing, I think since Univerisity I had not written down so much!*

*It has been great, funny and a huge success! I was chatting with a 10-years-old boy!*

*It was such an experience. I hope to participate again next year... many people asked me whether we were going to organise this again!*

*It was a challenge and an adrenaline rush to try to answer all kind of questions. Beautiful experience!*

*It reminded me of when I was a child and they set up a phone to talk to an astronaut.*

*Parents connected to help their young children and at the end they told me how excited the kids were. They even made me a drawing! Very gratifying for both sides.*

*I was happy, inspired, excited by this experience. I want to repeat now!*

*Goal accomplished! It is such a proud that we were so many in this first experience.*

*I met a 18-years-old girl who wanted to become a professional astrophysicist, but people around her used to tell her that it is a men's career. She said that talking to me helped her decide to go for it!*