

# The First Galician Female Astronomer

## Antonia Ferrín Moreiras

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*Ciencia en Historias*

Antonia Ferrín Moreiras was born in Orense in 1914. When she was barely six years old, she moved with her family to Santiago de Compostela, as her father, a mathematics professor, wanted to provide his four daughters with the best opportunity anyone could offer them: a university degree.

Years later, Antonia enrolled in the Faculty of Sciences at the University of Santiago, where at that time only the chemistry degree was offered. Access to free tuition for families with limited resources during the first years and the enjoyment of scholarships during the final years allowed her to obtain, during the period of the Second Republic, a degree in Chemistry and a National Teacher certification.

In 1934, soon after her graduation, she was already an assistant professor in the physics and mathematics laboratory classes at the faculty, a job she would combine with that of interim assistant in the science section of the "Instituto de Santiago" until 1936, both positions unpaid. At the same time, she was pursuing a pharmacy degree and attending the only two courses in exact sciences offered at the University of Santiago de Compostela (Universidad de Santiago de Compostela, USC).

The following three years correspond to one of the most difficult moments in Spanish history: the Civil War. The university was completely paralyzed and, to the hardships inherent in a conflict, an anonymous denunciation was added that also affected her professional life. In 1937, she was sanctioned for political reasons with disqualification from holding managerial and trusted positions, which separated her from teaching in secondary school-level education. She always considered that it was simply a matter of discrimination rather than retaliation, since she was allowed to continue working as a teacher at the orphan girls' school, "Nuestra Sra. de los Remedios", in Santiago.

After the civil war ended and university life resumed, her case was reviewed and she obtained rehabilitation in 1940. That same year, she also returned to her teaching position at the Faculty of Sciences.

### Tireless Scientist and Teacher

In the 1940s, she met Ramón María Aller, founder of the USC Astronomi-

cal Observatory, who introduced her to the world of astronomy. With him, she began her research journey at that observatory, becoming for nearly twenty years his most faithful, disciplined, and meticulous collaborator in both office work and telescope observations. Very soon, the handling of astronomical instruments such as the twelve-centimeter refractor telescope or the transit telescope held no secrets for her. This allowed her to perform everything from micrometric measurements of double stars to star transits across two vertical slits or stellar occultations by the moon. Her results were published in the Spanish astronomy magazine *Urania*. An anecdote that Professor Ferrín recalled often had to do with the intense cold she suffered under the dome during winter nights without the possibility of keeping warm with trousers, a garment that at that time was not considered feminine and that only movie actresses dared to wear on the big screen.



*Antonia Ferrín Moreiras*

In 1950, she achieved another feat by graduating in exact sciences, her true calling, at the "Universidad Central de Madrid" after studying as an independent student the three courses she had left. That same year, the Higher Council for Scientific Research (Consejo Superior de Investigaciones Científicas) granted her a scholarship to conduct research at the Observatorio Astronómico de Santiago, a scholarship that in 1952 was transformed into a research assistant position.

The following year she won, through competitive examination, a position as

a mathematics professor at the "Escuela Normal de Magisterio de Santander", which she would occupy for two years. At the end of that time, she returned to Santiago, where she joined the Women's Normal School (Escuela Normal Femenina).

In 1957, when the mathematics section of the Faculty of Sciences was created at USC, Antonia became its first "female professor", teaching numerous subjects and actively participating in the center's early years.

During that time, she continued researching under the direction of Ramón María Aller who, together with Vidal Abascal, encouraged and helped her to complete, independently, the doctoral courses at the Complutense University (Universidad Complutense de Madrid, UCM) The fruit of this effort was the defense of her doctoral thesis in 1963 under the title *Observations of Transits Across Two Verticals*. That same year, she was appointed Professor of Mathematics (Catedrática de Matemáticas) at the Santa María teacher training college (escuela de magisterio) in Madrid, and left Santiago to exercise her functions there.

Once settled in Madrid, Antonia accepted the proposal from the Faculty of Mathematics at the UCM and became an adjunct teacher, a job she would combine with her work at the teacher training college. It was during this period that I (Josefina F. Ling) had the privilege of being her student in the celestial mechanics course, taught within the astronomy studies program at UCM. I remember how masterfully she made her explanations.

With the occasion of the celebration of the fiftieth anniversary of the mathematics degree at USC in 2008, Antonia Ferrín was elected as godmother of this anniversary for being an indefatigable student and worker, a versatile teacher throughout her more than five decades dedicated to this work, and for having been a pioneer on different fronts of the Faculty of Mathematics: the first woman to be part of its teaching staff, to carry out research work in astronomy, and to defend a doctoral thesis. In recognition of her career, she was the first woman to have a classroom dedicated to her in the building of the Santiago faculty.

In August 2009, the life of our first Spanish woman astronomer, Dr. Antonia Ferrín Moreiras, who was 95 years old, came to an end.