

# Susana Beatriz Araujo Furlan

## *Curriculum Vitae*



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### **Personal Info:**

**Lastname and first name:** ARAUJO FURLAN, Susana Beatriz

**Place and date of birth:** San Juan, Argentina, 25 de Abril de 1995

**Gender:** Female

**E-mail (professional):** saraujo@iar.unlp.edu.ar

### **Education:**

**2021 - (April to December) Diplomatura en Ciencia de Datos, Aprendizaje Automático y sus aplicaciones**, Degree in Data Science, Machine Learning and its applications. *Facultad de Matemática, Astronomía y Física (FaMAF) . Universidad Nacional de Córdoba (UNC).*

**2020– 2025 PhD in Astronomy**, *Facultad de Matemática, Astronomía y Física (FaMAF)- Universidad Nacional de Córdoba (UNC).*

**2014 – 2020 Degree in Astronomy** (Título obtenido), Fecha de finalización: 27 de marzo de 2020, *Facultad de Matemática, Astronomía y Física (FaMAF)- Universidad Nacional de Córdoba (UNC).*

Grade point average: 8.11. Grade's thesis: "*Preparation and test of a Radiotelescope*", director: Carlos Valotto (OAC-UNC).

**2013 –unfinished Electronic Engineering**, *Facultad de Ciencias Exactas Físicas y Naturales (FCEFN)- Universidad Nacional de Córdoba (UNC).*

Grade point average: 7.90 (with fails), 8.21 (without fails). 46,81% of the career approved

**2010 – 2012 Oriented Cycle in Natural Sciences (high school)**. *Colegio Central Universitario Mariano Moreno - Universidad Nacional de San Juan. San Juan, Argentina.*

## **Research:**

### Research projects with subsidies:

2019-2020     **“Measurement of Radio Interferences for Studies at High Red- Shift”**,  
**Director: Carlos Valotto**, Research Project, support by Ministerio de Ciencia y Tecnología de la  
Provincia de Córdoba, resolution N° 07/2019.

### Scientific papers:

“Acondicionamiento de un radiotelescopio utilizando *Software Defined Radio (SDR)*” Araujo  
Furlan, S.B. & Valotto, C.A., Boletín de la Asociación Argentina de Astronomía, vol. 62, p.295-297.  
Peer reviewed, refereed.

### Presentations in Congress:

2021-April     **XI Friends of Friends Meeting**. Poster presentation “Development of a digital  
receiver for the detection and processing of Fast Radio Bursts with the Dr. Carlos Varsavsky  
radio telescope”.

2020-October   **62° Reunión Anual de la Asociación Argentina de Astronomía** (62° Anual  
Meeting of the Argentinian Association of Astronomy). Poster presentation. “Development of a  
digital receiver for the detection and processing of Fast Radio Bursts with the Dr. Carlos  
Varsavsky radio telescope”. Language: spanish.

2020-October   **62° Reunión Anual de la Asociación Argentina de Astronomía** (62° Anual  
Meeting of the Argentinian Association of Astronomy). Poster presentation. “Acondicionamiento  
de un radiotelescopio utilizando *Software Defined Radio (SDR)*”. Language: spanish.

2019-October   **Primer Workshop Internacional CART** (First CART’s International Workshop).  
Oral presentation “Medición de interferencias en radio para estudios a alto redshift”.  
International Congress. Language: spanish.

2019-May       **Workshop de Infraestructura Astronómica Argentina** (Workshop of  
Argentinian Astronomical Infrastructure). Poster presentation “Acondicionamiento y Prueba de  
un radiotelescopio”. National Congress. Language: spanish.

### Participation in Congress and Schools:

2022   **XII Friends of Friends Meeting**, 18-22 of April, online and in person. International.  
Language: english.

2021   **63° Reunión Anual de la Asociación Argentina de Astronomía** (63° Anual Meeting of  
the Argentinian Association of Astronomy). 25-29 of October, online. National. Language: spanish

2021   **FRB 2021 Conference**, July 28th till August 5th, online. International. Language: english.

2021 **Escape summer school, Data Science for Astronomy, Astroparticle & Particle Physics**, 7-18 of June, Laboratoire d'Annecy de Physique des Particules, Annecy, France. Online school. Language: english.

2021 **Workshop de Infraestructura Astronómica Argentina**, (Workshop of Argentinian Astronomical Infrastructure) June 2nd and 3rd, online. National workshop. Language: spanish.

2021 **Casper Workshop 2021**, 17-20 of May, online. International. Language: english.

2021 **Green Bank Telescope Training Workshop**, 8-10 of February, online. International. Language: english.

2019 **Primer Escuela Internacional CART, Observatorio Astronómico Félix Aguilar (OAFA), San Juan** (First CART's International School, Félix Aguilar Observatory). 15-18 of October. International School. Language: spanish. Attendance.

2019 **First Light: Stars, Galaxies and Black Holes in the Epoch of Reionization, Advanced School. San Pablo - Brasil.** 28/07 - 07/08. International. Language: english. Attendance.

2019 **9° Friends Of Friends Meeting (FoF), Observatorio de Córdoba (OAC), Córdoba.** International. Language: english.

2018 **8° Friends Of Friends Meeting (FoF), Observatorio de Córdoba (OAC), Córdoba.** International. Language: english.

2017 **10° Escuela de Astronomía en Astrofísica del IryA (UNAM) Morelia, México** (10° IRyA's School in Astrophysics in Astronomy ). International. Language: english.

2017 **7° Friends Of Friends Meeting (FoF), Observatorio de Córdoba (OAC), Córdoba.** International. Language: english.

### **Teaching:**

**01/04/2022 - 31/07/2022 Assitant Professor A, without area profile of the Observatorio Astronómico de Córdoba** (Córdoba's Astronomical Observatory). Position earned through internal selection at the Observatorio Astronómico de Córdoba. Internal Resolution 22/2022.

**02/2020 – 07/2020 Undergraduate Teacher's Assistant, in Astronomy Area of the Facultad de Matemática, Astronomía y Física (FaMAF-UNC).** Position earned by contest. Resolution number to be confirmed.

**08/2019 – 02/2020 Undergraduate Teacher's Assistant, in Astronomy Area of the Facultad de Matemática, Astronomía y Física (FaMAF-UNC).** Position earned by contest. Resolution 191/2019.

**04/2019 – 04/2020 Undergraduate Teacher’s Assistant, Interim Position at the Observatorio Astronómico de Córdoba (OAC-UNC).** Position earned by contest. Interim Resolution 17/2019.

**04/2018 – 04/2019 Undergraduate Teacher’s Assistant, Interim Position at the Observatorio Astronómico de Córdoba (OAC-UNC).** Position earned by contest. Interim Resolution 06/2018.

**07/2015 – 07/2016 Pre-grade TEaching Practice, subject: Linear Algebra, FCEfYn, UNC.**

### **Scientific and Institutional Management:**

**09/2018 – 09/2019 Student Representative at the Advisory Committee of Astronomy’s Career – FaMAF (UNC).**

**10/2017 – 10/2018 Student Representative at the Cograde Committee of FaMAF (UNC).**

### **Outreach Activities:**

**2020 Outreach Scholarship** for diurnal and nocturnal guided visits at Bosque Alegre’s Astrophysical Station (EABA). From March until June. Interim Resolution (OAC) to be confirmed. (Not developed due to COVID-19)

**2019 Outreach Scholarship** for diurnal and nocturnal guided visits at Bosque Alegre’s Astrophysical Station (EABA). From August to November. Interim Resolution 61/2019 (OAC).

**2019 Outreach Scholarship** for diurnal and nocturnal guided visits at Bosque Alegre’s Astrophysical Station (EABA). From March until June. Interim Resolution 99/2018 (OAC).

**2019 Outreach Scholarship** for diurnal and nocturnal guided visits at Bosque Alegre’s Astrophysical Station (EABA). 10 days on January. Interim Resolution 98/2018 (OAC).

**2018-Nov The Museums Night, OAC.** Collaboration in the activities carried out in the Museum of the Astronomical Observatory of Córdoba (MOA).

**2017-Dic The Museums Night, OAC.** Participation in the “Magnetic Corner”, at the Observatorio Astronómico de Córdoba (OAC).

**2017-Sept Universidad Nacional de Córdoba (UNC’s) Careers Exhibition,** Attention on the FaMAF’s stand as an Astronomy student.

**2016-Nov The Museums Night, OAC.** Participation in the design of holographic prism at the OAC.

### **Capacitation Courses:**

2021 **introducción a la Docencia Universitaria** (Introduction to university teaching).  
Post-degree course. Facultad de Matemática, Astronomía y Física - UNC.

2016 **Astronomical Instrumentation Course** - Astrometry and Photometry Group (GAF),  
Observatorio Astronómico de Córdoba (OAC).

### **Fellowships Obtained:**

04/2020 – 04/2025 **Ph.D. Research Fellow** CONICET (National Research Council)- Topic:  
*Observational Cosmology from Argentina: development and implementation of a radiometer in order to research the reionization process.* Supervisors: Gustavo E. Romero, Carlos A. Valotto.

### **Scholarships Obtained:**

01/2020 – 03/2020 **Tip A Service Scholarship of the Argentinian Asociation of Astronomy**, *“Acondicionamiento de un radiotelescopio utilizando Software Defined Radio (SDR)”*

03/2016 – 03/2017 **Bicentenary Scholarship**, renovation, PNBB program, Degree in Astronomy

03/2015 – 03/2016 **Bicentenary Scholarship**, renovation, PNBB program, Degree in Astronomy.

### **Other Knowledge:**

**Languages:** *Spanish:* Native

*English:* Advances (FCE approved, level obtained: C1, year 2011 )

*Chinesse:* Basic, 1 semester course of the Departamento de Idiomas con Fines Académicos (DIFA)- Facultad de Lenguas - UNC, and 1 semester course at Confucio's Intitute - UNC.

*Korean:* Basic course in process. (Started in November of 2020)

*Italian:* Basic (3 years of high school's annual courses )

*French:* Basic (2 years of high school's annual courses)

### **Programming Languages:**

Latex: Basic

C++, Basic

Fortran 77 y 95, Basic

Python, Basic

### **Other Activities:**

**2018 VI National Astronomy's Students Meeting** (Encuentro Nacional de Estudiantes de Astronomía, ENEA). Córdoba, Córdoba. Dissertation and part of Córdoba's Organizing Committee.

**2017 V National Astronomy's Students Meeting** (Encuentro Nacional de Estudiantes de Astronomía, ENEA). La Plata, Buenos Aires. Dissertation and part of Córdoba's Organizing Committee.

**2016 IV National Astronomy's Students Meeting** (Encuentro Nacional de Estudiantes de Astronomía, ENEA). San Juan, San Juan. Participation.

**2012 United Nation's Model, Colegio Central Universitario "Mariano Moreno",** Universidad Nacional de San Juan, Res N° 124/12-CS. Participation.

**2011 United Nation's Model, Colegio Central Universitario "Mariano Moreno",** Universidad Nacional de San Juan, Res N° 124/12-CS. Participation.

**2011 XIV United Nation's Regional Model, at Mendoza, OAJNU** (Organización Argentina de Jóvenes para las Naciones Unidas). Participation.

**2010 First Senator's Chamber Model, at San Juan, OAJNU.** Participation.

**2010 United Nation's Model, Colegio Central Universitario "Mariano Moreno",** Universidad Nacional de San Juan, Res N° 124/12-CS. Participation.

### **Distinctions:**

**2012** Second Color Guard at Saint John's Cultural Association (English institute). San Juan

**2006** 10° Color Guard at Modelo School, Primary Level, San Juan