

Alejandro S. Borlaff

NASA Postdoctoral Fellow at Ames Research Center

NASA Postdoctoral Fellow at the Ames Research Center. PhD. in Astrophysics. Specialist in calibration and operations of space and ground-based telescopes. Expert on multi-wavelength observational astronomy and instrumentation. Developing small-sat missions. Team member of the NASA/DLR Stratospheric Observatory for Infrared Astronomy (SOFIA) and ESA/Euclid.

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📍 Mountain View, United States

🐦 @asborlaff

WORK EXPERIENCE

NASA Postdoctoral Fellowship

NASA Ames Research Center / SSA division

10/2019 - Present

Mountain View, California

Achievements/Tasks

- **ESA/Euclid Space Telescope** Consortium Member - Low Surface Brightness astronomy Working Package
- **NASA/DLR SOFIA** Legacy Team for the study of extragalactic magnetic fields with HAWC+ FIR polarimeter
- Studying extended hot gas galactic halos with **Chandra X-ray Telescope** with Advanced CCD Imaging Spectrometer (ACIS)
- Mission Simulations Coordinator of the proposed NASA/Pioneers **DUNES Space Telescope**

Contact : Dr. Pamela M. Marcum - pamela.m.marcum@nasa.gov

European Space Agency Faculty Researcher

ESA/ESAC, European Space Astronomy Centre

03/2019 - 10/2019

Madrid, Spain

Achievements/Tasks

- Research scientist visitor at ESA European Space Astronomy Centre, as part of the ESA/Euclid Legacy science team.

Contact : Dr. Bruno Altieri - bruno.altieri@sciops.esa.int

CEFCA Fellowship in Astrophysics Research

Centro de Estudios de Física del Cosmos de Aragón

05/2014 - 09/2014

Teruel, Spain

Achievements/Tasks

- Summer research fellowship at the Centro de Estudios de Física del Cosmos de Aragón (CEFCA), in Teruel, Spain.

EDUCATION

IAC Resident Astrophysicist PhD Programme

Instituto de Astrofísica de Canarias (IAC)

10/2014 - 11/2018

San Cristobal de la Laguna (Santa Cruz de Tenerife, Spain)

Courses

- Title: "Understanding the outskirts of disc galaxies" Improving WFC3/IR HST observations on the HUDF - PhD advisor: John E. Beckman - jeb@iac.es
- **4 years of telescope operations** of the GHAFAS/Fabry-Perot Spectrograph at the 4.2m William Herschel Telescope in La Palma Observatories

SKILLS

Optical / NIR imaging

Field spectroscopy

R

X-ray astronomy

In-orbit detector calibration

Python

FIR/radio polarimetry

Data analysis

3D printing

Galactic evolution

Statistics

Gas and stellar kinematics

Astrophysics simulations

PUBLICATIONS

Since 2014, I have participated in 25 scientific publications in refereed journals, 7 of them as first author. I have 522 refereed citations with a h-index of 11 and a i10-index of 14. In addition, I am referee for ApJ and A&A. List of selected articles:

- **Borlaff and Euclid Collaboration, (2022).** Euclid Key Project publication. "Exploring the ultra-low surface brightness Universe with Euclid/VIS" A&A, 657A, 92E.
- **Borlaff et al. (2019).** "The missing light of the Hubble Ultra Deep Field" A&A, V621, id.A133.
- **Borlaff et al. (2021).** "Extragalactic Magnetism with SOFIA (Legacy Program). I. The Magnetic Field in the Multiphase Interstellar Medium of M51" ApJ, 921, 128B.

ACHIEVEMENTS

NASA ROSES Proposal Reviewer (2021 - Present)

SOFIA Cycle 9 - Observing Award (PI, ID:09_0113)

VLA Cycle 21A and DDT/20 Observing Award – NRAO

Astronomy Picture of the Day - The Magnetic Field of the Whirlpool Galaxy (01/2021)

<https://apod.nasa.gov/rjn/apod/ap210120.html>

LANGUAGES

English

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Spanish

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Russian

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French

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