

Jorge Andrés Villa Vélez

PERSONAL DATA

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EDUCATION

- 2018-2021 Ph.D. candidate in ASTROPHYSICS and COSMOLOGY, **Aix-Marseille Université**, Marseille, France.
Thesis: "A cosmic census of the galaxies in the distant universe."
Advisor: Dr. Véronique BUAT
- 2016-2018 Master of Science in ASTRONOMY, **Leiden University**, Leiden, The Netherlands.
Major Project - Thesis: "Searching for exoplanetary rings with *SWASP* and *Gaia*."
Advisor: Dr. A.G.A. BROWN, Dr. M.A. (Matthew) KENWORTHY
- Minor Project:** "An ALMA survey of sub-millimetre galaxies in the extended chandra deep field south: A blind search for emission lines at 145 GHz."
Advisor: Dr. Jacqueline A. HODGE
- 2009-2015 Bachelor of Science in ASTRONOMY, **University of Antioquia**, Medellín, Colombia.
Thesis: "Dark Matter Halo Characterization Through Properties Of Galaxies Classified In The Hubble Sequence."
Advisor: Dr. rer. nat. J.C. MUÑOZ-CUARTAS

PROFESSIONAL EXPERIENCE

INTERNSHIP - 2013 | UBVRI Photometry of Open Clusters (ESO 587-04, FSR 124 and SAI 135).
Photometric study performed in the *National Observatory of México, San Pedro Mártir*.
Advisor: Raúl Michel Murillo
Place: UNAM, Ensenada, Baja California

OBSERVING EXPERIENCE

ALMA proposal - 2017 **Co-I:** ALMA Cycle 5 (ACA). **PI:** Gabriela Calistro Rivera (Leiden)
(Resubmitting) 2016.2.00209.S

Observing period - 2013 National Observatory of México, Ensenada, Baja California (UNAM)
Open clusters and cataclysmic variable stars observation.

Trainee - 2013 National Observatory of México, Tonantzintla (UNAM & INAOE)
Observing techniques and instrumentation.

TEACHING EXPERIENCE

Teaching Assistant - 2016 **Waves and Oscillations**; University of Antioquia.
Teacher - (2015-2016) **Observational Astronomy**; University of Antioquia.
Teaching Assistant - (2012-2014) **Astronomy for Youngsters**; University of Antioquia.

RESEARCH LINES & INTERESTS

Stellar & Galactic Astrophysics Open and globular clusters populations, photometry, spectroscopy, galaxy dynamics and evolution, dark matter.

Radioastronomy & Exoplanets Sub-millimeter galaxies, protoplanetary disks, star and planet formation, star forming regions.

LANGUAGES

Spanish Mother tongue
English Fluent
French Beginner

PUBLICATIONS

- 2018 The Pre-main Sequence Population of Sco-Cen Unveiled with Gaia DR2, J.A. Villa Vélez, Brown A. G. A., and M. A. Kenworthy, RN ASS, 2018, Volume 2, Number 2

ACADEMIC RECOGNITION AND AWARDS

- Honors - (2009-2015) Best Astronomy term GPA. Best Astronomy advanced student.
Best physics department graduated GPA.
University of Antioquia (**1.000€**).
- Scholarships- (2015-2018) UdeA MSc/PhD Scholarship. University of Antioquia (**7.000€**, rejected).
Full Oort Scholarship, Leiden University (**58.000€**).

MEMBER OF COMMITTEES AND WORKING GROUPS

- (2017-2018) Member of the Education Committee Master Astronomy. Leiden University.
- (2012-2015) Computational Physics & Astrophysics (FACom). University of Antioquia.

COMPUTATIONAL SKILLS

- Programming** Python, C (GSL), Mathematica, SQL, IDL, Bash.
Monte-Carlo, MCMC, scikit-learn (Machine Learning).
- Operating Systems** Linux(Fedora, Ubuntu), Windows.
- Data processing** CIGALE, CASA, Pyraf(IRAF), TOPCAT, DS9, Aladin, Vizier, Gnuplot.
- Text editing** LATEX, (kate, geany, emacs), Microsoft Applications.

SUMMER SCHOOLS, CONFERENCES & WORKSHOPS

- 2019 Société Française d'Astronomie & d'Astrophysique (SF2A); Nice, France. (Oral presentation)
- 2014 IV Colombian Meeting of Astronomy & Astrophysics (COCOA); Pasto, Colombia. (Oral presentation)
- 2013 XII Meeting for Science & Mathematics Teaching; Medellín, Colombia.
- 2013 XXII Summer in the Observatory; Ensenada, México.
- 2013 Observational Astronomy School for LatinAmerican Students (ESAOBELA); Puebla, México.
- 2012 II International Astrobiology Meeting; Medellín, Colombia.
- 2011 Magnetic-Related Phenomena in the Outer Atmosphere of Cool Stars; Medellín, Colombia.
- 2011 Modern Topics in Fourier Optics; Medellín, Colombia.
- 2011 IV Colombian Meeting of Astronomy & Astrophysics (COCOA); Bogotá, Colombia.

SELECTED TALKS

- 2015 Research Seminar; University of Antioquia, Medellín, Colombia.
- 2014 Meeting Conference; University of Nariño, Pasto, Colombia.
- 2013 International Research Presentation; Medellín, Colombia.
- 2013 Summer School Seminar; Ensenada, México.

COMPLEMENTARY EDUCATION

- 2016 Radioastronomy with ALMA (AstroTwinCoLo)
Introduction to Astrochemistry (AstroTwinCoLo)
- 2015 Computational Astrophysics (AstroTwinCoLo)
Galaxies Formation (AstroTwinCoLo)
- 2013 Astronomical Observing Techniques (AstroTwinCoLo)
Radiative Processes in Astrophysics (AstroTwinCoLo)
- 2010 Cosmology, University of Antioquia.
- 2010 Planetary Sciences, University of Antioquia.
- 2009 Astrophysics Foundations, University of Antioquia.

HOBBIES(PERSONAL INTERESTS)

- Sports** Swimming, Hiking, Biking
- Hobbies** Photography, Sightseeing, Collecting rocks, stones and coins, Museums & Art, Classical Music & Opera, Telescope observation.