

CONTACT INFORMATION	<p>Institute for Applied Computational Science Harvard University 33 Oxford Street Cambridge, MA 02138, USA</p>	<p><i>Voice:</i> (617) 998-1468 <i>E-mail:</i> cgarraffo@seas.harvard.edu <i>Web:</i> ceciliagarraffo.com</p>
EDUCATION	<p>PhD in Physics, Mar 2010, University of Buenos Aires M.S. in Astronomy, Dec 2005, National University of La Plata</p>	
SEPCIALTIES & SKILLS	<p>X-ray astronomy, high-energy stellar astrophysics, exoplanetary environments, data science, machine learning, deep learning, artificial neural networks, probabilistic programming, Bayesian inference, MHD modeling, large data, parallel computing, black hole physics. Python, Pytorch, Pyro, IDL, Fortran, Jupyter Notebooks, Git, Colab.</p>	
RESEARCH	<p>35 publications in scientific, peer reviewed journals (12 as a first author), 967 citations.</p> <p>Research Associate at the Institute for Applied Computational Sciences, Harvard University, and at Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, 2018 to present.</p> <p>Postdoctoral Fellow at High Energy Astrophysics Division, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, 2013 - 2018.</p> <p>Research Associate at Brandeis University. Member of the group of High-Energy and Gravitational Theory, Physics Department, 2010 - 2013.</p> <p>Member of the Group of General Relativity and Quantum Relativistic Theories at Institute for Astronomy and Space Physics, IAFE, Buenos Aires, Argentina, 2006 - 2010.</p> <p>Doctoral Fellow of the National Scientific and Technological Research Council (CONICET), Argentina, 2006 - 2010.</p> <p>Member of the Group of Radioastronomy of the School of Astronomical and Geophysical Sciences of the National University of La Plata.</p>	
MISSION INVOLVEMENT & COLLABORATIONS	<p>DPI of the Normal Incidence Extreme Ultraviolet Photometer (NExtUP), SmallSat mission concept; member of Extreme-UV Stellar Characterization for Atmospheric Physics and Evolution (ESCAPE), small explorer (SMEX) mission concept science team.</p> <p>Member of NASA's <i>Living With a Star</i> collaboration team; member of NeXSS's <i>Living Breathing Planet</i>; member of <i>The COCOA-PUFS Project</i>, Space Telescope Institute.</p>	
MENTORING	<p>Supervisor of Ely Doodson, Southampton M.S. student, IACS Harvard 2019 - 2020.</p> <p>Supervisor of Laura Harbach, Southampton M.S. student, CfA 2017-2018. Currently graduate student at Imperial College.</p> <p>Supervisor of Alex Lascelles, Southampton M.S. students, CfA 2016-2018. Currently researcher at MIT.</p> <p>Summer project supervisor for Quentin Pognam, CfA 2016. Currently graduate student at ETH Zurich.</p> <p>Mentor at the <i>YouthAstroNet</i> program, Harvard-Smithsonian CfA, 2016.</p>	

- Mentor at the *Talented and Gifted STEM program for Latinas in the Boston Public Schools*, Harvard-Smithsonian CfA, 2016-2018.
 Advisor for *El Universo a Tus Manos* Program for Undergraduate Science Majors, CfA 2015 - 2018.
- TEACHING Teaching Fellow of Data Science, Computer Sciences, Harvard University, 2018 - present.
 Guest Lecturer, Department of Astronomy, Harvard University, 2018.
 Teaching Assistant at U. of Buenos Aires, Argentina, 2007 - 2008.
 Teaching Assistant at National U. of La Plata, Argentina, 2003 - 2007.
- ACADEMIC SERVICE: Reviewer for Astrostatistics Interest Group, American Statistical Association, 2020 - present. Reviewer for NASA-FDL, 2018 - to present. Referee for MNRAS, 2017 - to present. Referee for Nature Astronomy, 2017 - to present. Referee for The Astrophysical Journal, 2015 - to present. Women in Science Council at Harvard-Smithsonian CfA, Cambridge, MA, 2015 - to present. Postdoc Council at Harvard-Smithsonian CfA, Cambridge, MA, USA; 2014 - 2016. Academic Counselor at National U. of La Plata, 2003-2006.
- PROPOSALS *Normal-incidence Extreme Ultraviolet Photometer (NExtUP)*, NASA Pioneers, Co-I, 2020.
Normal-incidence Extreme Ultraviolet Photometer (NExtUP), NASA Smallsat Studies AS3, Co-I, 2019.
The Extreme-UV Stellar Characterization for Atmospheric Physics and Evolution (ESCAPE), NASA SMEX, Co-I, 2019.
Realistic MHD Modelling of Wind-Driven Processes in Cataclysmic Variable-Like Binaries, NASA HEC, PI, 2018.
Modeling Chandra Observations of Disk-Star Interaction, CXC cycle 20th, PI, 2018.
Weaving the history of the solar wind with magnetic field lines, HST cycle 26, Co-I, 2018.
Ionization of protoplanetary disks by energetic flare and CME particles, Smithsonian Institution, Co-I, 2017.
The High-Energy Environment of the Triple Super-Earth Host GJ 9827, XMM, Co-I, 2017.
Characterizing the Winds of M Dwarf Stars, HST Cycle 25, Co-I, 2017.
PTFO 8-8695b: The Youngest Exoplanet or a Stellar Feature?, CXC cycle 18th, Co-I, 2016.
Lessons from Mars: Are Habitable Atmospheres on Planets around M Dwarfs Viable?, Smithsonian Institution Consortium for Unlocking the Mysteries of the Universe grant, Co-I, 2014.
The first mass and angular momentum loss measurements for a CV-like binary, joint XMM and HST program, Co-I, 2014.
- INVITED AND PLENARY TALKS *En Busca de Planetas Habitables Usando Redes Neuronales*. International Invited Speaker, Festival de Astronomia. Colombia, Jan 2020.
StellarNet: A Bayesian Neural Network for Stellar Evolution. Invited talk at CMM Pucon Symposium, Chile, Aug 2019.
Stellar Spin to Planetary Atmospheres. Invited talk at Planet-Star Con-

nections in the Era of TESS and Gaia, Kavli Institute for Theoretical Physics in Santa Barbara, California, Jun 2019.

Stellar Activity and Rotation in Cool Stars. **Keynote speaker at Einstein Fellows Symposium**, Cambridge, MA, Oct 2018.

Stellar Activity and its Impact in Exoplanets. Invited talk at the “First light in a new era of astrophysics” meeting, Aarhus, Denmark, Jul 2018.

Gone With the Wind: from stellar spin to planetary atmospheres. CfA Summer Colloquium, Jun 2018.

The Revolution Revolution. Invited talk at Institute for Theory and Computation (ITC) Pizza Lunch, CfA, Feb 2018.

From stars to planets. Invited Colloquium, Boston College, Newton, MA, Nov 2017.

Magnetic Complexity: The missing piece that solves two puzzles, Invited talk at the “Stars and Planets Science Extravaganza 2!”, CfA, Cambridge, MA, Oct 2017.

Stellar Activity Evolution: Impact on Exoplanets and CV evolution. Invited Astrophysics Colloquium, Boston University, Boston, MA, Feb 2017.

The Missing Morphology Term in Stellar Rotation Evolution. Plenary talk at The 19th Cambridge Workshop on Cool Stars, Solar Systems, and the Sun, Uppsala, Sweden, June 2016.

FELLOWSHIPS
AND
DISTINCTIONS

PRIZES

Distinction Dr. Joaquín V. Gonzalez to the students graduated with the best grades of National University of La Plata, Argentina, 2006.

Merit Undergraduate Fellowship, National University of La Plata, Argentina, 2000 - 2005.

FELLOWSHIPS

Doctoral Fellow of the National Council, Argentina. Namely: Beca de Formación de Postgrado Interna del Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Argentina, 2006 - 2010.

Fellowship for Research Experience, University Extension School, School of Astronomical and Geophysical Sciences, National University of La Plata, Argentina, 2003-2005.

Fellowship for Research Experience, School of Astronomical and Geophysical Sciences, National University of La Plata, Argentina, 2000-2002.

ORGANIZATION
OF WORKSHOPS
AND MEETINGS

Organizer of CfA Women in Science meetings. CfA, 2015 -2018.

Annual PostDoc Symposium and Social Dinner organizer. CfA, 2014.

Organizer of several postdoc social events. CfA, 2014 - 2015.

OUTREACH
AND
SCIENTIFIC
JOURNALISM

Mentor through the *YouthAstroNet* program at CfA, 2016 - Article for general public about the man in the cosmic landscape: C. Garraffo, G. Giribet, and K. Poppenheager; *Antesis*, Argentina, 2016 - Caption for Chandra X-Ray Observatory images. NASA HQ, 2014 - Video presentation on Black Holes for Shamrock Elementary School, Woburn, MA, Oct 2013 - Article on Chandra discovery for general public: “*Supernova SN 1979C: El agujero negro más joven?*”. C. Garraffo and G. Giribet, CienciaNet, Argentina, 2010.