

Ester Aranzana

Curriculum Vitae

Personal Details

Date of birth January 23th. 1988
Place of birth Madrid, Spain
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Education

2013–present **PhD in Astrophysics**, *IMAPP/Department of Astrophysics, Radboud University, Nijmegen, The Netherlands, 'The variability connection between accreting compact objects'*. Advanced time-series analysis of optical observations of cataclysmic variables and Active Galactic Nuclei. Experience with 4.2-m William Herschel Telescope, ULTRACAM instrument and *Kepler* mission. Supervisor: Dr. Elmar K rding - Promotor: Prof. Dr. Paul Groot.
2012–2013 **MSc in Astrophysics**, *Universidad Aut noma de Madrid, Spain, MSc thesis: 'New Insights into the X-ray burster GS 0836-429'*.
2006–2012 **Degree in Physics**, *Universidad Complutense de Madrid, Spain, 5 years degree*. Supervisors: Dr. Celia S nchez and Erik Kuulkers.

Professional experience and training

2012 **External consultant**, *ESA, European Space Astronomy Centre (ESAC), PO Box 78, 28691, Villanueva de la Ca ada, Madrid, Spain*.
Performing a Literature Survey to know which sky regions and instruments on-board INTEGRAL yielded more publications to create a new strategy future observations.
Oct 2010 – Apr 2011 **Traineeship at ESA/ESAC**, *Study of the Properties of a Selected Sample of X-ray Bursters with INTEGRAL*, Supervisors: Celia S nchez and Erik Kuulkers.
Jan 2009 **Traineeship at Observatoire de Paris**, *LERMA department, Paris, France*, Exoplanets detection by transit method for project *Hands on Universe-France*. Supervisors: Olivier Marco (UPMC) and Roger Ferlet (IAP)

Teaching experience and outreach

2016–present **Member of the outreach committee**, *IMAPP/Department of Astrophysics, Radboud University, Nijmegen, The Netherlands*.
Organisation and coordination of outreach activities.
2013–present **Public talks and telescope tours**.
Talks for different audience and telescope tours and stargazing evenings.

- 2014-2016 **Teaching Assistant**, *IMAPP/Department of Astrophysics, Radboud University, Nijmegen, The Netherlands.*
Programming in Python, Nuclear evolution of the Universe and Fluid dynamics, 18 ECTS.
- 2013-2014 **Teaching Assistant**, *IMAPP/Department of Astrophysics, Radboud University, Nijmegen, The Netherlands.*
Nuclear evolution of the Universe and Fluid dynamics, 6 ECTS.
- November 2009 **Teacher for telescopes**, *Universidad Complutense de Madrid, Madrid, Spain.*
For the International Year of Astronomy.

Grants

- 2016 **Travel Grant**, *Leids Kerkhoven-Bosscha Fonds.*
Conference 'Stellar Remnants at the Junction: Comparing Accreting White Dwarfs, Neutron Stars, and Black Holes', May 2 – 6, 2016, Junction, Texas, USA.
- 2015 **Travel Grant**, *Leids Kerkhoven-Bosscha Fonds.*
Conference 'Black hole Accretion and AGN feedback', June 1 – 5, 2015, Shanghai, China.
- 2008–2009 **Exchange program ERASMUS grant**, *Third year of the degree in Physics in Université Pierre et Marie Curie, Paris, France.*

Publications

- Aranzana, E., Sánchez- Fernández, C. & Kuulkers, E., *New insights into the quasi-periodic X-ray burster GS 0836-429*, 2016, A&A, 586, A142.
- Scaringi, S., Maccarone, T. J., Körding, E., Knigge, C., Vaughan, S., Marsh, T. R., Aranzana, E., Dhillon, V. S., Barros, S. C. C., *Accretion-induced variability links young stellar objects, white dwarfs, and black holes*, 2015, Science Advances, 1E0686S.
- Aranzana, E., S. Scaringi, E. Körding, *Soft Fourier time lags observed in the dwarf nova SS Cyg*. Proceedings of the conference 'X-ray Universe 2014', 16 - 19 June 2014, Dublin, Ireland.
- Sánchez- Fernández, C., Kuulkers E., Aranzana, E., *A catalog of X-Ray bursts observed by JEM-X onboard INTEGRAL*. Proceedings of the conference 'Fast X-Ray timing and spectroscopy at extreme count rates', 7- 11 February 2011, Champéry, Switzerland.

Conferences and workshops

- Sept 2016 **Accretion Processes in Cosmic Sources 2016**, *Invited talk 'Accretion-induced variability links young stellar objects, white dwarfs, and black holes'*, Sept 4 –10, 2016, St. Petersburg, Russian Federation.
- May 2016 **Stellar Remnants at the Junction: Comparing Accreting White Dwarfs, Neutron Stars, and Black Holes**, *Poster: Optical variability properties of CVs*, May 2 – 6, 2016, Junction, Texas, USA.
- May 2016 **Netherlands Astronomy Conference 2016**, May 23 – 25, 2016, Nunspeet, The Netherlands.
- Feb 2016 **Lorentz Centre Meeting: The X-ray Spectral-Timing Revolution**, *Talk about variability properties of CVs in the accretion group discussion*, Feb 1 – 5, 2016, Leiden, The Netherlands.
- June 2015 **Black hole Accretion and AGN feedback**, *Contributed talk: The ubiquitous rms–flux relation: from CVs to AGN*, June 1 – 5, 2015, Shanghai, China.

- May 2015 **Netherlands Astronomy Conference 2016**, *Contributed talk: The optical rms-flux relation: from CVs to AGN*, May 20 – 22, 2015, Nunspeet, The Netherlands.
- June 2015 **The X-ray Universe 2014**, *Contributed talk: Optical broad-band variability of CVs*, June 15 –19, 2014, Trinity College, Dublin, Ireland.

Organisation of meetings

- Present **Netherlands Astronomy Conference**, *Local Organising Committee*, Radboud University, Nijmegen, The Netherlands.
- 2010 **Astronomy state conference (CEA)**, *Local Organising Committee as part of ASAAF/AAM*, Madrid, Spain.
- 2009 **Opening ceremony of the International year of Astornomy (IYA)**, *Local Organising Committee, l'Observatoire de Paris*, UNESCO, Paris, France.

Technical Skills

Programming

Python, Matlab, IDL, Shell

Additional Softwares

LaTeX, MySQL, Adobe InDesign

Astronomical: Ftools, XSPEC, IRAF, TOPCAT, ALADIN, INTEGRAL OSA Software

Web: Javascript, HTML, CSS

Languages

Spanish **Mothertongue**

English **Fluent**

French **Fluent**

Dutch **Basic**

Level C1

Certificate DALF C1 2017

Level A2

Personal Skills

- Higly motivated
- Creative and critical thinking
- Organised and resourceful
- Interpersonal skills
- Ambitious
- Interests: Traveling, yoga, dancing, reading, diving and climbing