

RAQUEL FRAGA-ENCINAS

| Data Analysis | Image Processing | Innovative Thinking |

@ fraga.encinas@gmail.com

@ r.fraga@astro.ru.nl

+31-(0)-627 129 659

✉ Sint Annastraat 510, 6525ZT Nijmegen, NL

🌐 www.ru.nl/english/people/fraga-encinas-r/

in www.linkedin.com/in/fraga-encinas/



EXPERIENCE

PhD. candidate in Astrophysics

Radboud University Nijmegen

📅 Sept. 2013 – Ongoing

📍 Nijmegen, Netherlands.

- Conducting research on Sagittarius A*, the supermassive black hole at the center of our own galaxy.
- Member of the *Event Horizon Telescope* collaboration, which aims to take the first direct picture of a black hole.
- Data analysis & calibration of observations with radio telescopes.
- Analyzing theoretical models & computer simulations to explain the physics of Sagittarius A*.
- Writing proposals to obtain observing time at telescopes.
- Teaching Astronomy courses to undergraduate students.

Support Scientist

Spanish National Research Council (IFCA-CSIC)

📅 July 2008 – Jan. 2013

📍 Santander, Spain.

- Tested software & wrote documentation of instrumentation developed for the *ATHENA* space telescope.
- One of the editors of the viability report for *ATHENA*, which is a European Space Agency mission to study the Universe in X-rays.

Research Scientist

Spanish National Research Council (IAA-CSIC)

📅 Feb. 2008 – July 2008

📍 Granada, Spain.

- Conducted research on the physical properties of Quasars.
- Calibrated & analyzed data from optical telescopes.

Research & Teaching Assistant

University of Maryland

📅 Aug. 2001 – May 2007

📍 College Park, USA.

- Performed research on Planetary Atmospheres, specifically the emission in the exosphere of Europa, a moon of Jupiter.
- Taught Astronomy classes such as: *Introduction to Astronomy*, *Collisions in Space* & *The origin of the Universe*.

Physics Lab Assistant

University of New Mexico

📅 2000 – 2001

📍 Albuquerque, USA.

- Assisted in the construction of the *PHENIX* particle detector, currently located at Brookhaven National Lab, USA.

EDUCATION

PhD. in Astrophysics

Radboud University Nijmegen

📅 2013 – Ongoing

M.S. in Astronomy

University of Maryland

📅 2007

B.S. in Astrophysics

University of New Mexico

📅 2001

I.B., International Baccalaureate

United World College (UWC-USA)

📅 1997

HONORS & AWARDS

- **Eoin Gray Memorial Award** (2001). Astrophysics Dept. - U. New Mexico.
- **Graduation with Honors** (2001). Dean of studies - U. New Mexico.
- **Amigo Scholar** (1997 – 2001). Tuition scholarship - U. New Mexico.
- **UWC-USA scholar** (1995 – 1997). Tuition/board. Spanish Government.

LANGUAGES

English

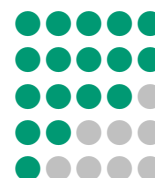
Spanish

Galician [C1]

German [A2]

Dutch [A1]

Levels as indicated by the Common European Framework of Reference for Languages (CEFR).



PUBLICATIONS

📄 [Link to Peer-reviewed articles – NASA Astrophysics Data System.](#)

RELEVANT PROJECTS

- **Event Horizon Telescope**
<https://eventhorizontelescope.org>

- **ATHENA X-ray Observatory**
www.the-athena-x-ray-observatory.eu

TECHNICAL SKILLS

- **Programming languages:** Python, shell-scripting, HTML, C.
- **Operating Systems:** Linux, Mac OS, Windows.
- **Astronomical Software:** AIPS, Difmap, IRAF, DS9, FITS files.
- **Data Analysis:** Excel, Statistics, SciPy, Pandas.
- **Word processing:** LaTeX, Overleaf, Word, OpenOffice.
- **Graphic Design:** Gimp, Photoshop, Adobe Illustrator.
- **Editorial Software:** Adobe InDesign.
- **Other:** Aperture Synthesis, Very Long Baseline Interferometry, image processing, data visualization & spectroscopy.

TRANSFERABLE SKILLS & STRENGTHS

Critical Thinking | Cultural Awareness | Drive to succeed | Creativity
Adaptability | Empathy | Problem Solving | Writing | Troubleshooting
Teamwork | Quick learning | Teaching | Planning | Delegating | Rigor.

VOLUNTEER WORK

English Tutor

University of Vigo - Ourense Campus

📅 2007

📍 Ourense, Spain.

I taught English to engineers. I focused on improving their reading and writing skills in the context of technical/scientific reports.

Group Therapy Co-Leader

University of Maryland Health Center

📅 2003 - 2004

📍 College Park, USA.

I co-led a weekly support group for college students being treated for mental health issues. We focused on problems due to stress & acceptance of their diagnosis. The co-leading doctor focused on pharmacological treatment. I was trained at the John Hopkins Mood Disorder Center, and attended their annual symposium.

Physics Tutor & Senior Care

United World College (UWC-USA)

📅 1995 - 1997

📍 New Mexico, USA.

I provided support to local high-school students coming from challenging backgrounds who struggled with Physics. I also regularly visited elderly who did not receive any attention from relatives.

MOST PROUD OF



Courage & Persistence

I had in order to pursue my dream of getting an international education in the USA and becoming a scientist.



Resilience & Strength

No matter what life throws in my path, I know I can overcome any obstacles & learn from them.



Personal Growth

I evolved from a shy girl living in a very traditional society to a sociable, open-minded adult who enjoys challenges & learning.

HOBBIES

Reading fiction novels, learning languages, graphic design, going to pop-rock concerts, taking road-trips around the USA, introducing North American cooking to my reluctant relatives, creating elaborate costumes to dress-up for Halloween, swimming.

REFERENCES

Prof. Dr. Heino Falcke

@ h.falcke@astro.ru.nl

✉ Astrophysics Department
Radboud University
P.O. Box 9010
6500 GL Nijmegen, Netherlands.

Dr. Monika Moscibrodzka

@ m.moscibrodzka@astro.ru.nl

✉ Astrophysics Department
Radboud University
P.O. Box 9010
6500 GL Nijmegen, Netherlands.

Prof. Dr. Eduardo Ros

@ ros@mpifr.de

✉ Max-Planck-Institut
für Radioastronomie
Auf dem Hügel 69
D-53123 Bonn, Germany.