

Camille DIEZ

ESA Research Fellow


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-  NASA ADS
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Skills


 — X-ray data analysis with:

- **HEASoft** (*proficient*): high-level, multi-mission tasks for X-ray astronomical spectral, timing, and imaging data analysis
- **ISIS** (*proficient*): Interactive Spectral Interpretation System, equivalent to Xspec
- **SAS** (*proficient*): Science Analysis System to reduce and analyse data collected by the *XMM-Newton* observatory
- **SIXTE** (*basics*): Simulation of X-ray TElescopes
- **jaxspec** (*development*): Python library for X-ray spectral analysis

 — **Python** data analysis (*intermediate*)

 — **S-Lang** (*proficient*): object-oriented programming language

 — **SAO ds9** (*proficient*): astronomical imaging and data visualisation application

 — **BASH**, Linux, macOS, Windows, LaTeX, GitHub (*proficient*)

Languages

- French (*native*)
- English (*fluent – C1*)
- Spanish (*intermediate – B2*)
- Chinese (*beginner – A2*)
- German (*starter – A0*)

Research Interests

X-ray studies of accreting neutron stars and their local environment

Experience

- 2023-Now **ESA Research Fellow** ESA/ESAC, Madrid, Spain
Broadband analysis of stellar winds in High Mass X-ray Binaries (HMXBs)
Based at ESAC + regular visitor at IRAP, Toulouse, France
- 2019-2023 **PhD Candidate** IAAT, Tübingen, Germany
Unveiling the wind structure of the Vela X-1 HMXB: insights from *XMM-Newton* and *NuSTAR* observatories
Under the supervision of Victoria Grinberg and Andrea Santangelo
- 2019 **Master Thesis Internship** IRAP, Toulouse, France
Optical spectroscopy of compact objects in globular clusters with the VLT to identify neutron star properties and accretion physics around white dwarfs
Under the supervision of Sébastien Guillot and Natalie Webb
- 2018 **Research Project** IRAP, Toulouse, France
The origin of high-energy gamma-ray halos around pulsars. Production of a Python code to reproduce the surface brightness of the studied pulsars
Under the supervision of Pierrick Martin and Luigi Tibaldo

Education

- 2019-2023 **Ph.D. in Astrophysics** Univ. Tübingen, Germany
Doktor der Naturwissenschaften – with honours
- 2018-2019 **M.Sc. 2nd year Degree** Univ. Toulouse III, France
Astrophysics, Space Science and Planetology (ASEP)
- 2017-2018 **M.Sc. 1st year Degree** Univ. Toulouse III, France
Universe Sciences and Space Technology (SUTS)
- 2016-2017 **B.Sc. Degree** Univ. Toulouse III, France
Fundamental Physics
- 2014-2016 **Classes Préparatoires aux Grandes Ecoles (CPGE)** Poitiers, France
Mathematics, Physics and Engineering Sciences
Two-year highly selective classes to prepare for the exams of French Grandes Ecoles or Universities

Grants & Fundings

- 2023-2026 **ESA Postdoctoral Research Fellowship** ESA/ESAC, Madrid, Spain
Postdoctoral grant (PI) to carry out research at ESA for 3 years
- 2024 **AHEAD2020 Visitor Programme** IRAP, Toulouse, France
AO7 – Full funding (PI) for two 2-week visits to work with Sébastien Guillot and Simon Dupourqué on neutron star studies and on the development of the jaxspec software
- 2024 **ESA Faculty Workshop** ESA/ESAC, Madrid, Spain
Funding of 15550€ (PI) to organise a workshop at ESAC: "Winds across the Universe: Synergies from compact object binaries to binary stars. Additional 7000€ obtained from the AHEAD2020 grant to support the event
- 2022 **ESA Archival Research Visitor Programme** ESA/ESAC, Madrid, Spain
Call #2 – Full funding (PI) for a 8-week visit to work with Peter Kretschmar and Felix Fürst on the study of the stellar wind environments in massive stars and absorption variability in HMXBs using *XMM-Newton* archives
- 2022 **AHEAD2020 Visitor Programme** ESA/ESTEC, Noordwijk, NL
AO2 – Full funding (PI) for two 1-week visits to work with Victoria Grinberg on the continuation of my PhD