

# Call for a PhD position Applications are open now

The Hot Universe

# Project:

Most of the normal matter in the Universe is expected to reside in warm-hot filaments that connect galaxy clusters. Recently, X-ray space telescopes have allowed us to study the intergalactic gas in the outskirts of galaxy clusters and to discover X-ray emission from these filaments. The PhD project focuses on systematically expanding these and related studies in a multi-wavelength approach, exploiting machine learning tools.

#### References:

https://ui.adsabs.harvard.edu/abs/2025arXiv250302884R/abstract https://ui.adsabs.harvard.edu/abs/2025A%26A...694A.168V/abstract https://ui.adsabs.harvard.edu/abs/2024A%26A...691A.286D/abstract https://ui.adsabs.harvard.edu/abs/2024A%26A...689A.113M/abstract https://ui.adsabs.harvard.edu/abs/2024A%26A...681A.108V/abstract

#### Requirements:

M.Sc. in physics and astrophysics

## **Desirable experience:**

- Project and study experience in extragalactic astrophysics and cosmology
- Expertise with machine learning tools

### Offer:

Please use the contact information or the website https://blog.mpifr-bonn.mpg.de/imprs/ for more details.

Dynaverse welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Cluster of Excellence

Our Dynamic Universe

https://dynaverse.astro.uni-koeln.de

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