

The University of Bonn is an international research university with a wide education and research profile. With a 200-year history, approximately 31,500 students, more than 6,000 staff, and an excellent reputation at home and abroad, the University of Bonn is one of the most important universities in Germany and is recognized as a University of Excellence.

The **Faculty of Mathematics and Natural Sciences**, in the **department of Physics/Astronomy**, invites applications for a

Professorship in Astrophysics with a Focus on Large-Scale Structure Surveys (W3 tenure or W2 Tenure-Track to W3)

to be filled as soon as possible.

The professorship is intended to continue and strengthen the tradition of excellence in cosmology at the University of Bonn, with a focus on the large-scale structure (LSS) of the Universe and its connection to current and future surveys. Applications are welcome from theorists, phenomenologists, and observers working on cosmological LSS. Depending on qualifications and academic experience, the position will be filled either as a W3 professorship or as a W2 tenure-track professorship leading to W3.

The successful candidate is expected to play a key role in the scientific development of the Dynaverse Excellence Cluster, which initially funds the position, and to engage actively in interdisciplinary collaboration, particularly at the interface with computer science.

Teaching is an integral part of the professorship and covers all levels of the degree programmes. A high-quality teaching concept is expected. Knowledge of German is not required at the time of appointment; however, non-native speakers are expected to acquire sufficient German language skills within a reasonable time frame to fulfil undergraduate teaching duties and to participate fully in academic self-governance.

The recruitment requirements are based on § 36 HG (NRW).

The University of Bonn promotes an open, respectful, and non-discriminatory academic culture and is actively committed to equal opportunity and family friendliness. We aim to eliminate structural disadvantages and to strengthen diversity in research, teaching, and administration. Therefore, we welcome all applications, regardless of ethnic or social background, gender, sexual orientation, religion or belief, disability, or age. Applications from women and people with a documented severe disability (or equivalent status) will be given preferential consideration in accordance with the State Equality Act (LGG) NRW and Social Code (SGB) IX.



Applications should include the following documents: a curriculum vitae; a list of publications (with up to five publications highlighted and their significance briefly explained); a description of previous research (maximum 2 pages); a detailed research plan (maximum 3 pages); a teaching concept (1 page); as well as an overview of courses taught and third-party funding acquired.

Applicants must clearly state in their application whether they are applying for the tenure-track or the tenured professorship. An application to both positions simultaneously is not permitted.

Please submit these documents by **July 26, 2026** via the appointment portal of the University of Bonn: <https://berufungsportal.uni-bonn.de>

If you have any questions, please contact the front office of the physics and astronomy department at the University of Bonn (fachgruppe@physik-astro.uni-bonn.de).

Selection criteria for filling the professorship as a permanent W3 Professorship in Astrophysics with a Focus on Large-Scale Structure Surveys:

Required:

- Outstanding scientific achievements in theoretical, phenomenological, or observational cosmology, demonstrated by
 - a strong publication record in internationally recognized journals, and
 - a proven track record in the successful acquisition of competitive third-party funding and major research resources (e.g. large-scale computing or observational facilities).

Additional indicators of international scientific standing may include, but are not limited to, presentations at leading international conferences and leadership or coordination roles in international research collaborations.

- An internationally visible research profile in large-scale structure (LSS) of the Universe, with demonstrated connections with current or upcoming large-scale structure surveys.
- Research that complements and strengthens existing research areas at the Argelander Institute for Astronomy of the University of Bonn while fostering productive interactions with current faculty.
- Willingness to contribute substantially to the scientific development of the Dynaverse Excellence Cluster, including interdisciplinary collaboration, for example with computer scientists.
- Proven ability and willingness to teach in English, particularly within the Master of Astrophysics program, and willingness to teach in German after an appropriate familiarization period.
- Demonstrated experience in course delivery, supervising students, and leading a research group.
- Demonstrated interest in outreach, service activities, and academic self-governance.

Desired:

- Awareness of gender and diversity issues and commitment to inclusive academic practices.
- Willingness to apply and further develop both established analysis techniques and modern AI/ML methods to enhance the information content and robustness of cosmological inferences.

Selection criteria for filling the professorship as a fixed-term W2 Professorship with tenure track to W3 in Astrophysics with a Focus on Large-Scale Structure Surveys including criteria for interim and final evaluation:

Required:

- Outstanding scientific achievements in theoretical, phenomenological, or observational cosmology, demonstrated by
 - a strong publication record in internationally recognized journals, as well as
 - clear potential in the acquisition of competitive third-party funding and major research resources (e.g. large-scale computing or observational facilities).

Additional indicators of international scientific standing may include, but are not limited to, presentations at leading international conferences and leadership or coordination roles in international research collaborations.

- An internationally visible research profile in large-scale structure (LSS) of the Universe, with demonstrated connections with current or upcoming large-scale structure surveys.
- Research that complements and strengthens existing research areas at the Argelander Institute for Astronomy of the University of Bonn while fostering productive interactions with current faculty.
- Willingness to contribute substantially to the scientific development of the Dynaverse Excellence Cluster, including interdisciplinary collaboration, for example with computer scientists.
- Proven ability and willingness to teach in English, particularly within the Master of Astrophysics program, and willingness to teach in German after an appropriate familiarization period.

Desired:

- First experience in course delivery, supervising students, and leading a research group.
- Awareness of gender and diversity issues and commitment to inclusive academic practices.
- Demonstrated interest in outreach, service activities, and academic self-governance.
- Willingness to apply and further develop both established analysis techniques and modern AI/ML methods to enhance the information content and robustness of cosmological inferences.

Criteria for interim and final evaluation for the fixed-term W2 Professorship with Tenure-Track to W3 in Astrophysics with a Focus on Large-Scale Structure Surveys:

The evaluation is conducted in accordance with the Tenure-Track Regulations (TTO) of the University of Bonn and is carried out in four different categories: research performance, academic teaching, personnel management skills, academic commitment. The assessment of the professor's qualifications occurs in two terms with an interim evaluation (after two years) in the first three, and a final evaluation (after five years) in all four categories.

Criteria for the interim evaluation

Research performance

The professor is expected to achieve the following research goals:

- The professor makes a significant contribution to the development of his/her field of research. This is demonstrated, for example, by the acquisition of observing time at leading observatories, or computing time at "high-performance computing" facilities and by publications with substantial own contribution in peer-reviewed journals and conference papers.
- The professor participates in competitive calls (EU, DFG, BMBF, collaborative projects, etc.) to acquire third-party funding.

Academic teaching

The professor is actively engaged in academic teaching. This is demonstrated by:

- Completion of high-quality courses (lectures, seminars) in the Bachelor of Science Physics program or in the Master of Science Astrophysics program or in the physics teacher training courses.
- Successful supervision of bachelor's or master's theses.

Regarding research performance and academic teaching: expected are excellent research achievements that are internationally recognized as top range in the field along with a very good performance in academic teaching or, alternatively, an excellent teaching performance along with very good research achievements that significantly exceed international standards.

Personnel management skills

The professor

- leads their own working group,
- continues his or her training within the framework of the personnel development concept of the University of Bonn (e.g. coaching for executives) or by means of other events.

Criteria for the final evaluation

Research performance

The professor is expected to demonstrate excellent performance in research by the time of the final evaluation:

- The professor makes a visible contribution to the development of his/her field of research. This is demonstrated, for example, by the acquisition of observing time at leading observatories, or computing time at "high-performance computing" facilities and by publications with substantial own contribution in peer-reviewed journals and conference papers.
- The professor successfully acquires third-party funding as Principal Investigator (PI) through competitive funding schemes.
- The professor is committed to the promotion of young scientists, as demonstrated by the supervision of doctoral students or postdoctoral researchers.

Academic teaching

The professor is actively engaged in academic teaching. This is demonstrated by:

- Completion of high-quality courses (lectures, seminars) in the Master of Science Astrophysics program or in the Bachelor of Science Physics program or in the physics teacher training courses. At least two of these courses should be from the Master of Science Astrophysics program.
- Successful supervision of bachelor's or master's theses.

Regarding research performance and academic teaching: expected are excellent research achievements that are internationally recognized as top range in the field along with a very

good performance in academic teaching or, alternatively, an excellent teaching performance along with very good research achievements that significantly exceed international standards.

Personnel management skills

The professor

- leads their own working group,
- continues his or her training within the framework of the personnel development concept of the University of Bonn (e.g. coaching for executives) or by means of other events.

Academic commitment

The professor is actively involved in academic self-governance. This is demonstrated by appropriate participation in internal university commissions or committees.

Status: December 22, 2025