



Postdoc in Astronomical Instrumentation – Astrophotonics

Applications are invited for a postdoctoral researcher in the group of Prof. Labadie at the Institute for Astrophysics of the University of Cologne, Germany. The institute is strongly involved internationally in the development of state-of-the-art instrumentation for infrared and sub-millimeter ground-based and space-based facilities (VLT/I, ELT, JWST, ALMA, CCAT).

The project: the proposed position is offered in the context of the renewal of DFG-funded project NAIR (“novel astronomical instrumentation through photonic reformatting”), a collaborative initiative between the **University of Cologne**, the **Durham University** and the **Leibniz-Institute-for-Astrophysics-Potsdam**. The ambition of NAIR is to enable significant progress in the deployment on-sky of innovative photonic-based solutions for long-baseline interferometry, nulling and integrated field spectroscopy, targeting primarily the near- and mid-infrared spectral range, and leveraging the technology transfer from manufacturing platform to astronomical instrumentation. NAIR focuses on the integration of small-scale optical functions and on the simplification of the interface to the telescope infrastructure through micro-optics. The end goal is to qualify these new technologies for astronomical exploitation.

The role: The successful applicant will be based at the Institute for Astrophysics in Cologne (formerly I. Physics Institute) and will take a leading role in the design, manufacturing and laboratory testing of fiber-linked integrated optics devices for long-baseline interferometry. On-sky deployment and testing at the CHARA array in California, US, is one of the long-term objectives to be obtained by the candidate. In this role, she/he will also ensure transversal collaborations between the different partners (University of Cologne, Leibniz-AIP, Durham University) to maximize the scientific return. Beyond the NAIR context for this position, the candidate may also contribute to specific tasks relevant to the on-going instrumentation projects in the Cologne group (i.e., VLTI, ELT)

The candidate: The applicant should have a PhD (or equivalent) in astronomy and astrophysics, experimental physics, or related discipline. She/He should ideally have a strong background in all fields associated with astronomical instrumentation including lab demonstrators, and have a proven record of contributed projects in the past. The candidate should also show independence and excellent work organization. Ability to work both in the areas of instrumentation and astrophysics is a strong advantage. A participation in teaching duties – in English and/or German – might be expected. The working language is primarily English.

Conditions: The position is for **3 years** (2 years + 1 year extension) starting at earliest convenience. The salary is based on the E13 scale of German civil service. Applicants should send a CV and a brief statement of activity to **labadie@ph1.uni-koeln.de**. They should arrange the email addresses of two referees that can be contacted directly. Further inquiries can be made at the same address. The deadline for submission is **21.07.2023**, with the review of applications starting immediately following reception, until the position is filled. Late applications are considered, but with no guarantee. The University of Cologne is an equal opportunity employer in accordance with German laws. Women, minorities and persons with disabilities are strongly encouraged to apply.