



## ***Instrumentation physicist/engineer for the METIS/ELT project***

Applications are invited for a physicist / instrumentalist / engineer position in the group of Prof. Labadie at the 1st Physics Institute of the University of Cologne, Germany. Our institute is and has been strongly involved in international projects for astrophysics (VLT/I, LBT, ELT, JWST, ALMA, SOFIA, CCAT, Herschel).

The project: Our institute contributes to the instrumentation program of the 39-m European Extremely Large Telescope (E-ELT) and more particularly to the construction of the first-light instrument METIS, the mid-infrared imager and spectrograph. METIS is constructed by a consortium of European institutions including the University of Cologne. The project is currently going through the phase C to be concluded by the Final Design Review (FDR). METIS will see its first light around 2028/2029. Our involvement in METIS is motivated by the unique science opportunities offered in several fields of astrophysics. In this context, the 1st Physics Institute is responsible since 2016 for the design, procurement, manufacturing and integration of the Warm Calibration Unit (WCU).

The role: The successful applicant will take a prominent role in a team of three to four persons by directly contributing and supporting the finalization of the Warm Calibration Unit of METIS and will co-lead the Manufacturing, Assembly, Integration and Testing (MAIT) phase in Cologne. As from end of 2024, this new person will be directly involved in the full METIS assembly in Leiden (Netherlands) where the final integration will take place before transport to Chile. These activities foresee strong interactions with the METIS partners and system leads of the consortium. The task of the successful applicant strongly focuses in optimization of the optical, mechanical, thermal and electrical design, as well as procurement, laboratory prototyping and assembly of the WCU. He/She will actively contribute to the writing of the documentation during the lifetime of the project. Well inserted in the local team at the University of Cologne, the present position offers a unique opportunity to join an international team involved in one of the major projects of the European Southern Observatory in infrared astronomy.

The candidate: He/She should hold PhD degree in experimental physics, engineering or related discipline, or a MSc in the same fields with proven experience. The candidate should ideally have experience in the development of astronomical instrumentation and with lab characterization techniques. A strong asset would be the knowledge of optical and mechanical design and analysis software such as Zemax, Comsol, Inventor, Ansys, Creo. Experience with Matlab, IDL and/or Python is highly desirable. Good knowledge of the English language is required. Regular traveling in Europe is requested.

Conditions: The position is funded for an initial period of **9 months** starting around September 2022 with an expected renewal for additional **3 years** as from July 2023 after renewal of the grant. 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](mailto: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 **15.07.2022**, with the review of applications starting immediately following reception, until the position is filled. 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.