Leibniz-Institut für Astrophysik Potsdam

innoFSPEC Potsdam, located at the Leibniz Institute for Astrophysics Potsdam (AIP) invites applications for a

Part-time Postdoctoral researcher / Doctoral student

for the optimization of starlight coupling in single-mode integrated optics devices by means of photonic lanterns and partial adaptive optics correction

Overview

innoFSPEC Potsdam is an Excellence Center for research and innovation created as a joint venture between the Leibniz-Institute for Astrophysics Potsdam (AIP) and the University of Potsdam (UP). The head office of the center is based at the AIP in Potsdam-Babelsberg.

The AIP is located in the beautiful Potsdam/Babelsberg area, at the southwestern border of the Berlin metropolitan region. About 130 scientists at AIP work on a variety of topics in astrophysics spanning from solar physics to cosmology, as well as on the development of new technologies and instrumentation for astronomical spectroscopy and ground-based telescopes.

Your tasks

- Design and modification of a commercial adaptive optics test bench for use in astronomy
- Upgrade of existing adaptive optics simulation software and development of numerical models of photonic lanterns and integrated optics devices
- Development of prototypes of few-modes photonic lanterns in collaboration with AIP personnel
- Interfacing of photonic lanterns with integrated optics components (e.g. integrated optics spectrographs)
- Execution of comprehensive numerical and experimental laboratory optimization tests of photonic lanterns and adaptive optics-assisted coupling of simulated starlight into single mode integrated optics devices

Your profile

- PhD (Post-Doc) or Master degree (Doctoral student) in Physics, Engineering or Astronomy
- Experience in experimental and theoretical micro-optics, adaptive optics and /or control systems
- Good programming skills (e.g. C++, MATLAB and/or LabView)

- Good general ICT skills (e.g. standard Office packages, Latex, Linux, Windows)
- Hands-on experience in micro-optical design with commercial software (e.g. R-Soft) is desired
- A background in the development of astronomical instrumentation is a plus
- Self-motivation, creativity, flexibility and the ability to work alone and in a team are highly appreciated

Conditions

The AIP is an equal opportunity employer and particularly encourages women to apply. It values diversity. The appointment is **part-time** for the duration of 36 months and planned to start by September 1, 2016. Further extensions of the contract will depend on the availability of third party funding and the overall performance of the candidate. Salary and social benefits are calculated based on the German public service scale (TV-L).

To apply, please send a single PDF (up to 10 MB), with your Curriculum Vitae (including publication list), cover letter, a list of references (3 or more) and statements on education and skills to zik2-pl@aip.de or to the address stated below. Complete applications received by August 1, 2016 will receive full consideration, however, review of applications will continue until the position is filled.

Contact

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