CONTRACT FOR INSTRUMENTATION FOR ULTRAVIOLET SPACE ASTRONOMY

Overview:
Ultraviolet (UV) astronomy (115nm-320nm) is fundamental for astronomy and needs to be carried out from space probes due to the full absorption of the UV window by the Earth's atmosphere. The AEGORA research group at the Universidad Complutense de Madrid is a world leader in the field. The AEGORA team has created the Laboratorio de Astronomia de Vacio (LUV) in the UCM and it is looking for personal to work in the lab. Two basic profiles are being searched for: senior laboratory manager and junior instrumentation scientist.

The LUV is equipped with a ISO-7 room and within it with an ISO-5 environment where a modular vacuum chamber is installed. The vacuum chamber is equipped with a state-of-the-art MCP detector sensitive to radiation in the 115nm-200 nm range.

The LUV has been originally created to fulfill the commitments of Spain in the Spektr-UF/World Space Observatory-Ultraviolet (WSO-UV) mission. WSO-UV is an international space telescope (170 cm primary) that will operate in the ultraviolet (UV) and it is equipped with instrumentation for imaging and ultraviolet spectroscopy. Spain participates in the development of the imaging instrument Field Camera Unit providing optics and the detector for the far UV (115 nm – 185 nm) channel. An important part of the Spanish contribution is the provision of the prims and lenses for the far UV channel of the instrument Field Camera Unit (FCU). The tests of these components will be carried in the LUV and successful candidates are expected to contribute significantly to this task.

AEGORA is also leading the ultraviolet space missions: Observatorio Ultravioleta Lunar (run by a consortium of research centers in Spain and America), the Ultraviolet Researcher for the Investigation of the Emergence of Life (URIEL) mission for low dispersion ultraviolet spectropolarimetry and participates in the UV missions SIRIUS and Arago. The LUV will also support the development of these missions.

Candidates Profile:
The successful candidates will join the Spektr-UF/WSO-UV FCU Spanish team to work in the LUV taking an active role in the qualification campaigns and later on, in the integration and verification campaigns of the FCU. This requires working with UV optical systems enclosed in a vacuum chamber, running the qualification tests at the LUV and producing the associated documentation. It will also require to participate in the development of UV instrumentation for the lunar UV observatory project being led by the AEGORA team.

The successful applicant must have a university degree in physics, chemistry, engineering, or related areas. Experience with laboratory optics or vacuum systems is needed for the senior applicants. Applications from young graduates willing to start a carrier in ultraviolet instrumentation are most welcome for the junior position. Salary is negotiable and depends on the skills of the successful candidate.

Good English skills are essential.

Contact:
Candidates should send a detailed curriculum vitae and cover letter explaining their interest to the e-mail address sec.aegora@ucm.es, quoting reference "VN 2022/02 LUV position". Consideration of applications will begin in July 1st 2022, and will continue until the position is filled. Contract date: September-December 2022.