



The Max Planck Institute for Physics invites applications for

Postdoctoral position(s)

focused on R&D in connection with the Axion Dark Matter search experiment MADMAX. The position is to be filled as soon as possible.

The Axion is a prime candidate to explain the Dark Matter problem of the universe. It is independently predicted by Peccei Quinn (PQ) symmetry breaking to explain the strong CP problem.

MADMAX is an experimental approach to search for Dark Matter axions with a mass around 100 μeV , a mass range favored by a class of theoretical models. The new approach makes use of the idea of a copper mirror in connection with dielectric layers inside a strong magnetic field that boosts the axion to photon conversion to a detectable rate in the microwave frequency regime around 30 GHz.

The successful candidate is expected to take over a leading role within the MADMAX collaboration in the development, characterization and implementation of important parts of the experimental system, such as the microwave radiometer, the first stage detector element and the dielectric haloscope booster.

Formal requirements for this position are a PhD in microwave engineering, experimental physics, astronomy, or a closely related field. Candidates should have a background in microwave technology, microwave engineering, experimental radio astronomy or closely related topics. Experience with RF signal simulation tools like ADS, COMSOL, CST or similar as well as experience with cryogenic equipment is an advantage.

Salary and benefits are commensurate with public service organizations (TVöD Bund). The contract is initially limited to 2 years with the possibility of an extension.

The Max Planck Society strives for gender equality and diversity. The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. Furthermore, the Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Further information can be obtained from Dr. Béla Majorovits (email: bela@mpp.mpg.de). Applications are welcome until **31 August 2025**. Regardless of the deadline the call is open until the position is filled. Interested applicants should send their applications (including a curriculum vitae, a statement of research interests and a list of publications) via our online [application portal](#). Please provide three names and contact details of persons who will be providing reference letters upon our request.

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The Max Planck Institute for Physics collects and stores personal data that you send for your application. Further information on the data collected can be found at <https://www.mpp.mpg.de/en/studying-and-working/jobs/data-protection-statement-for-job-applications/>