

The Stefan Meyer Institute for Subatomic Physics in Vienna ([SMI](#)) of the Austrian Academy of Sciences ([ÖAW](#)), Austria's leading non-university research and science institution, is devoted to the study of fundamental symmetries and interactions. In its division "Precision experiments at low energies" two

## POSTDOCTORAL RESEARCH POSITIONS (F\*M) IN ANTIHYDROGEN PHYSICS

(full time / 40h per week)

for a duration of two years are open for applications.

The successful candidates will join the ASACUSA collaboration working on measurements of the hyperfine structure of antihydrogen (for more details click [here](#)). The positions are open for a duration of 24 months each during which time the candidate will be seconded to CERN.

### Requirements

Applications are invited from outstanding candidates with a PhD in a relevant field (i.e. atomic physics). Knowledge of common experimental techniques such as UHV, magnets, detectors (e.g. MCP/PMT), electronics, experiment design and gas handling etc as well as excellent communication skills both oral and written are required. The candidate must be fluent in English and any experience of French would be an advantage.

### Roles

The first position requires the successful candidate to become responsible for running and developing positron handling. As such, any experience of positron science techniques such as source handling, moderation, buffer gas traps, and detection methods would be an advantage. It is expected that a new positron accumulation trap will be developed in the course of this project, its commissioning and characterisation would be one of the main tasks.

The second position will be working on 'mixing schemes' to improve the antihydrogen yield. This work will take place during LS2 hence it will be performed with matter i.e. electrons and protons. This work will require fine tuning of plasma and trapping parameters, as such any experience of nonneutral plasma trapping and manipulation, noise removal, Rydberg atom detection and trap design would be an advantage. During the period of this postdoc a new mixing trap will be developed.

### Offer

Contracts will have a duration of two years. The annual gross salary before tax will about 53.250 EUR based on the salary Scale of the Austrian Science Fund ([FWF](#)). An additional allowance will be available due to the secondment to CERN of 12.720 EUR per year.

### Application

Please send your CV, cover letter and details of 3 referees via e-mail to [smi@oeaw.ac.at](mailto:smi@oeaw.ac.at). Applications can be accepted up to the September 30, 2019 but it is a rolling interview procedure. So please send your application in time.

For informal enquiries and more information, please contact Dr. Daniel Murtagh via [dan.murtagh@cern.ch](mailto:dan.murtagh@cern.ch)

The Austrian Academy of Sciences values diversity and is committed to equality of opportunity.