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UNIVERSITÄT  
BERN

AEC  
ALBERT EINSTEIN CENTER  
FOR FUNDAMENTAL PHYSICS



The *Albert Einstein Center for Fundamental Physics* (AEC) and the *Laboratory for High Energy Physics* (LHEP) at the University of Bern invite applications for a

**Ph.D. Student Position in Precision Particle Physics with Neutrons  
concerning the Q-Neutron Experiment**

The *Fundamental Neutron and Precision Physics Group* at the University of Bern is working in the field of experimental low energy particle physics. We develop novel methods and perform high-precision neutron physics experiments to search for physics beyond the Standard Model. The group is active in several exciting state-of-the-art projects. Among them is the search for a neutron electric dipole moment using cold and ultracold neutrons. Now, we are starting a new project with the goal to measure the electric charge of the neutron using a novel interferometric method (Q-Neutron Experiment). Ultimately, this experiment is intended for the upcoming European Spallation Source in Sweden.

The successful candidate will be involved in all aspects of the experiment, e.g. design and test of experimental components, data acquisition, simulations, conducting neutron experiments during beam times, and data analysis. The candidate will be able to learn and experience a broad range of particle physics techniques and skills. The position will be located in Bern, however, experiments will also be performed at the spallation neutron source at the Paul Scherrer Institute and other international research facilities.

We are looking for a highly skilled and enthusiastic researcher who enjoys working in a quickly emerging project. You should hold a master's in physics and ideally have experience in experimental physics from internships and/or your master's project. You are a team-oriented and communicative person and act independently, show initiative and are practice-oriented. Good knowledge of English (written and oral) is mandatory; knowledge of German is a plus.

Candidates are requested to send a short letter of motivation, their CV, and names and contact information of references to the email address given below.

The position is open starting from September 1<sup>st</sup> 2019. The review of applications will continue until the position is filled.

For further information, please contact:

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