

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Postdoctoral Research Position in Precision Muon Physics

The Intermediate Energy Nuclear Physics Group of the University of Illinois has an immediate opening for a postdoctoral research associate. Our nine senior researchers, six PDRAs, and approximately 20 graduate students are involved in experiments at PSI, BNL, JLab, ORNL, DESY and KEK, with efforts nearly equally split between tests of Fundamental Symmetries and high-energy Hadron Physics measurements. This PDRA appointment will be associated with the Precision Muon Subgroup, where our program involves several experiments at different stages of maturity. The efforts include development of a new muon $g-2$ experiment, where we are leading an effort to design a muon beam delivery scheme involving a pre-accumulator ring and we are designing a compact, fast and segmented electromagnetic calorimeter system. A related physics effort includes our participation in the analysis of Belle radiative return data with the aim of reducing the hadronic vacuum polarization uncertainty to the muon anomaly. Our very successful PSI-based experiments— MuLan and MuCap—have recently completed data taking for a sub-ppm determination of the Fermi constant and the first unambiguous determination of the pseudoscalar form factor g_P . We will submit a new proposal—The MuSun Experiment—to PSI in January 2008 with a focus on the muon capture process on the deuteron, a reaction having astrophysical interest such as solar pp fusion and $\nu+d$ reactions as studied by the SNO experiment. We invite highly motivated, creative individuals to apply to join in these efforts. A Ph.D. in nuclear or particle physics is a prerequisite, and relevant experience is highly desirable. Interested candidates should send a curriculum vitae and the names of three references to:

David W. Hertzog
Loomis Laboratory of Physics
1110 W. Green Street
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Further information about the position and the research group may be obtained by contacting Prof. Hertzog at the above address. See also: <http://www.npl.uiuc.edu/>

Applications should be received by January 30, 2008, to ensure full consideration.

The University of Illinois is an Equal Opportunity, Affirmative Action employer.