The University is seeking a Postdoctoral Researcher to work with the High Energy Experiment group in the Physics Department. The successful candidate will play a leadership role in an R&D project on charged particle tracking reconstruction, and other pattern recognition problems, on parallel processor architectures. The candidate will also have the opportunity to do their own research on the CMS experiment at the Large Hadron Collider at the European Laboratory for Particle Physics (CERN) in Geneva, Switzerland. For additional information, please contact the principal investigator Dr. Peter Elmer (Peter.Elmer@cern.ch). This position will be based either at CERN, in Geneva, Switzerland or alternatively at Fermilab, near Chicago, IL, subject to negotiation with the principle investigator. This is a full-time, one year position with the possibility of renewal contingent upon satisfactory performance and available funding.

Essential Qualifications:
- Ph.D. in Experimental Particle Physics or a closely related field

- Strong programming skills, in particular with C++ and Python

- Experience developing large-scale scientific software applications, in particular event reconstruction (pattern recognition) techniques relevant for high energy and nuclear physics detectors.

- Strong interpersonal, oral, and written communication skills.

Preferred Qualifications:
- Ability to direct efforts of others within teams of various sizes

- Experience working in large, international scientific collaborations and delivering software in such contexts

- Experience with charged particle tracking reconstruction on large high energy or nuclear physics detectors

- Experience with software performance optimization and/or new processor architectures (GPUs, Xeon Phi, etc.) and associated software technologies (CUDA, OpenCL, etc.)

Princeton University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation,
gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law. This position is subject to the University’s background check policy. To apply online, please visit http://physics.princeton.edu/jobs/ and submit a cover letter, CV, and contact information for three references.