

Postdoctoral Research Associate on CMS at Fermilab

Open Date: 11/10/2021

Close Date: 12/20/2021

Description

Fermi National Accelerator Laboratory seeks highly qualified candidates to fill multiple positions for a Postdoctoral Research Associate working on the Compact Muon Solenoid (CMS) experiment at the CERN Large Hadron Collider (LHC).

Fermilab is the home of the LHC Physics Center (LPC) and plays a leading role in physics analysis on CMS. The physics research of the group is broad, and we are involved in searches for physics beyond the standard model, studies of the Higgs Boson, and measurements of standard model processes. Some of the physics analysis topics that the successful candidate could lead as a Fermilab postdoc includes: measurements of Higgs boson or multi-boson electroweak processes, or searches for long-lived particles, dark matter and supersymmetry, or searches for various resonances decaying to jets, leptons, and W, Z or Higgs bosons, both boosted and resolved. Fermilab is a leader in the exploration of the latest analysis techniques, including novel tagging methods, machine learning, and anomaly detection. Each successful candidate will be highly motivated to conduct physics research and will be expected to lead in analysis of the dataset of proton-proton collisions already acquired in run 2 and planned for run 3 and beyond.

Fermilab has commitments to CMS in several areas within both the operation and upgrade of the experiment. Each successful candidate will be expected to contribute to technical research in at least one of the following areas: the timing detector, high granularity calorimeter, outer tracker, trigger, data quality, or scientific computing.

The CMS department at Fermilab has a strong and well established mentoring program for postdoctoral research candidates, focused on their career success. More than 60% of former CMS postdocs obtained tenure-track faculty positions at either universities or laboratories, a large fraction for the field of high energy physics. For more information about CMS at Fermilab see <https://cms.fnal.gov/>.

Research Associates will initially be stationed at Fermilab, in Batavia, Illinois and have the possibility of being stationed in the future at CERN, in Geneva, Switzerland.

Positions are for a period of up to three (3) years, with the potential for extension considered on a yearly basis thereafter.

Qualifications and Essential Job Functions

- Ph.D. in particle physics or a related field by the time of the appointment.
- A strong record of recent accomplishments in experimental physics.
- Excellent oral and written communication skills as demonstrated by presentations at conferences and a record of publication(s) in peer-reviewed journals.
- Ability to abide by all environment, safety and health regulations.
- Willingness to respect, understand and value individual differences that embody laboratory principles of diversity and inclusion.

Physical Activity and Work Conditions

HUMAN FACTORS: Mental Concentration, Sitting, Tight Work Schedule, and Visually Demanding.

In addition, the ability to travel by automobile and/or commercial air carrier both domestically and internationally may be required.

Application Instructions

Interested candidates should submit via Academic Jobs Online:

- 1) Cover letter,
- 2) Curriculum Vitae,
- 3) Research Statement,
- 4) Publication List and

5) Three or More Reference Letters (to be submitted by the reference writers at the AJO site).

<https://academicjobsonline.org/ajo/jobs/20366>

For general information about this position, please contact Dr. Robert Harris at rharris@fnal.gov.

Diverse people. Diverse jobs. Great science.

All FRA employees are required to be vaccinated for COVID-19, unless the employee is legally entitled to an accommodation based on a medical condition/disability or a sincerely held religious belief.

Fermilab is an Equal Opportunity Employer and believes a diverse and inclusive environment based on mutual respect is critical to our mission. Fermilab is committed to recruiting and developing the most hardworking people and does not discriminate in employment on the basis of race, ethnicity, color, religion, age, sex, gender identity or expression, sexual orientation, military/veteran status, country of birth, geography/postal code, disability, marital status, parental or gestational status, or other non-merit factor.