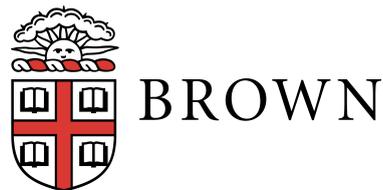


Postdoctoral Research Associate
Experimental High Energy Physics
Brown University



The experimental particle physics group at Brown University seeks to appoint a postdoctoral research associate. The group is led by Profs. Barone, Gouskos, Heintz, Landsberg, LeBlanc, and Roloff. This group plays a leading role in the international CMS experiment at the Large Hadron Collider (LHC) at CERN, and is actively engaged in precision Standard Model measurements (including in the QCD, Higgs and top quark sectors) and searches for new physics. We are engaged in applications of Artificial Intelligence and Machine Learning (AI/ML) in High-Energy Physics. We are major contributors to, and hold institutional responsibilities for, the operations of the silicon strip tracker, the hadron calorimeter, and the R&D of Phase 2 HL-LHC upgrades of the outer tracker and endcap calorimeter of CMS.

A Ph.D. in physics or a related field is required by the starting date, and experience with data analysis, machine learning, and/or solid state detectors is preferred. The physics department is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community. Applications are particularly encouraged from interested researchers with experience in one or more of the following areas:

- Performing differential measurements
- Incorporating ML/AI algorithms in object reconstruction and calibration
- Commissioning silicon detectors

The successful applicant will be expected to take a leading role in CMS physics analysis, particularly those that emphasize or improve the understanding of hadronic objects. They will also be expected to participate in the supervision and mentorship of doctoral, masters and/or undergraduate students. Depending on their interests, other potential opportunities include the exploration of the use of ML/AI algorithms for jet reconstruction and calibration, making contributions to CMS operations and upgrade projects, and/or characterizing R&D silicon timing detectors for future experimental applications.

Interested candidates should submit a cover letter, short statement of research interests (approx. 1 page), and *curriculum vitae*, and arrange to have at least three letters of recommendation submitted online at <http://apply.interfolio.com/131260>. The initial appointment will be for two years, with the possibility of renewal. In their cover letter, applicants should address their experience or ideas for contributing to an open and inclusive laboratory environment. For full consideration, applications should be submitted by 1 December, 2023. The position will remain open until filled.

For inquiries, please contact:

Profs. Jennifer Roloff (jroloff@brown.edu) & Matt LeBlanc (matt.leblanc@brown.edu).

As an EEO/AA employer, Brown University provides equal opportunity and prohibits discrimination, harassment and retaliation based upon a person's race, color, religion, sex, age, national or ethnic origin, disability, veteran status, sexual orientation, gender identity, gender expression, or any other characteristic protected under applicable law, and caste, which is protected by our University policies.