

## CMS Postdoc Job Opening at Northeastern University

The Experimental Particle Physics group at Northeastern University in Boston has an immediate opening for a Postdoctoral Research Associate to work on the Compact Muon Solenoid (CMS) experiment at CERN. The position will be based at CERN, under the supervision of Prof. Johan S. Bonilla Castro.

The Northeastern CMS group has leading involvements in the operation and upgrades of the endcap muon (EMU) system, the electromagnetic calorimeter and new MTD, and the Level-1 trigger. Physics efforts include searches for physics beyond the standard model, di-Higgs boson studies, and precision electroweak and QCD measurements. Efforts for R&D studies applied to a multi-TeV muon collider are also being developed.

The successful candidate is expected to contribute to the upgrade of the CMS EMU system, as well as to take a leading role in physics data analysis with BSM models coupling to third-generation quarks. The Bonilla Castro group focuses on identifying signals of massive particles traveling with high momenta, in particular developing ML-based tools to tag heavy-flavor jets with an emphasis on interpretability and physics-driven constraints. The successful candidate will be expected to take on management responsibilities of upgrade projects for the EMU trigger and data readout electronics during the upcoming Long Shutdown 3. Prof. Bonilla Castro is strongly committed to outreach, science communications, as well as efforts in diversity, equity, and inclusion; the successful candidate will be expected to contribute to these projects. The researcher will also have the opportunity to work with Ph.D. and undergraduate students.

A Ph.D. or equivalent degree in experimental particle physics by the time of the appointment is required. Candidates should have a strong record of recent accomplishments in data analysis and in detector hardware or software. For further details about the position, please contact [Prof. Bonilla Castro](#).

Application should include:

- CV
- Statement of research interests
- Statement on outreach and diversity

- Three letters of recommendation

Northeastern University considers factors such as candidate work experience, education and skills when extending an offer.

Northeastern has a comprehensive benefits package for benefit eligible employees. This includes medical, vision, dental, paid time off, tuition assistance, wellness & life, retirement- as well as commuting & transportation. Visit <https://hr.northeastern.edu/benefits/> for more information. Northeastern University is an equal opportunity employer, seeking to recruit and support a broadly diverse community of faculty and staff. Northeastern values and celebrates diversity in all its forms and strives to foster an inclusive culture built on respect that affirms inter-group relations and builds cohesion.

All qualified applicants are encouraged to apply and will receive consideration for employment without regard to race, religion, color, national origin, age, sex, sexual orientation, disability status, or any other characteristic protected by applicable law. To learn more about Northeastern University's commitment and support of diversity and inclusion, please see [www.northeastern.edu/diversity](http://www.northeastern.edu/diversity).