

Department of Physics

Postdoctoral Research Associate on the ATLAS Experiment at SMU

The SMU high energy physics group seeks outstanding candidates for one or two postdoctoral research associate positions on the ATLAS experiment at the Large Hadron Collider (LHC).

The successful applicant will be expected to take on technical, analysis and leadership roles in one of the following physics analysis areas: (a) the coupling between the Higgs Boson and bottom quarks; (b) the coupling between the Higgs and the Z boson in the four-lepton final state; (c) di-higgs production and decay. These are flagship measurements for LHC Run 2 and Run 3 and are all essential ingredients in standard model and beyond-the-standard model (BSM) Higgs programs. The successful candidate will also be expected to become involved in technical and leadership roles in the ATLAS detector in one of the following areas: (a) the ATLAS Trigger system, specifically in the ongoing development and operations efforts in bottom-quark-initiated jet triggers and potentially in related areas, such as trigger upgrades; (b) the ATLAS Liquid Argon (LAr) Calorimeter, specifically in ongoing operations as well as upgrade work during the upcoming long shutdown before Run 3. Previous experience with Higgs physics and/or trigger/LAr software and hardware systems is an advantage. We anticipate periods of residence both at CERN and at SMU in Dallas. A Ph.D. in high energy physics or a closely related field is required. Salary will be competitive.

Interested applicants should send a curriculum vitae and description of research interests, and arrange for 3 letters of reference, to Lacey Breaux at <u>jobsearch@physics.smu.edu</u>. Further information about this position can be obtained by contacting this email address and directing your inquiry to Profs. Ryszard Stroynowski, Robert Kehoe, Stephen Sekula, and Jingbo Ye. Applications received before July 16, 2018 are guaranteed full consideration, but further applications will be accepted until the position is filled.

The SMU ATLAS group pursues a strong and exciting research program in Higgs sector physics as well as the Liquid Argon (LAr) Calorimeter and Trigger/Data-Acquisition (TDAQ) systems. We host a world-class electronics lab that developed and built the opto-electronics for the ATLAS LAr Calorimeter and is currently focused on the upgrade of the ATLAS detector. We have prominent roles in operations and upgrade in the areas listed above.

SMU will not discriminate in any program or activity on the basis of race, color, religion, national origin, sex, age, disability, genetic information, veteran status, sexual orientation, or gender identity and expression. The Executive Director for Access and Equity/Title IX Coordinator is designated to handle inquiries regarding nondiscrimination policies and may be reached at the Perkins Administration Building, Room 204, 6425 Boaz Lane, Dallas, TX 75205, 214-768-3601, accessequity@smu.edu.

Hiring is contingent upon the satisfactory completion of a background check.

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