



January 2019

Experimental High Energy Physics Postdoctoral position at the Institute of Physics, Academia Sinica

Applications are invited for a postdoctoral position in experimental high energy physics with the Institute of Physics at Academia Sinica, Taiwan, to work on the ATLAS experiment at the Large Hardon Collider (LHC) at CERN. Academia Sinica is one of the leading research institutes in Taiwan. Its research in experimental high energy physics includes several large international collaborative projects such as the CDF experiment at Fermilab, the ATLAS and COMPASS experiments at CERN, and the AMS experiment that is installed on the International Space Station.

At ATLAS our group is responsible for the optical readout of the Liquid Argon calorimeter and the silicon inner tracking detectors. We are fabricating the router boards for the Phase-1 upgrade of the New Small Wheel muon detector, and are participating in the ATLAS Phase-2 upgrade. For computing facility, our institute hosts one of the few Tier-1 LHC computing grid centers. Our physics interests include measurement of di-boson production, search for the standard model (SM) Higgs boson and searches for new physics. In the SM Higgs search, our main contributions are in the bb decay channel and have played a significant role in the recent Higgs boson observation in the $H \rightarrow bb$ decay channel. In the area of new physics, we have searched for heavy Higgs boson, new heavy resonances decaying into a pair of di-boson, and for signs of dark matter. We are also actively involved in performance studies (b -tagging and measurement of missing transverse energy) to improve the physics analyses in ATLAS. For the data taking operation, our group is responsible for the online monitoring tools that are used by the data quality shifters in the control room during the Run 2 data taking. More details of our research work can be found at http://www.phys.sinica.edu.tw/brow_en.php?id=12&fid=3, https://www.phys.sinica.edu.tw/~smwang/as_cdf_atlas.html. The selected postdoctoral candidate will work with the group in data analysis, preparation for ATLAS Run 3 data taking, and in the Phase-2 upgrade.

Candidates should have a Ph.D in experimental high energy physics by the date of appointment. Applicants should send curriculum vitae, list of publications, a brief statement of research interests, and arrange for at least three letters of recommendation to be sent via email to Dr. Song-Ming Wang (smwang@phys.sinica.edu.tw). The position will remain open until filled.