Lisong Chen – HEP Seminar – November 2, 2021 Pittsburgh University

Title: Electroweak precision observables at future e+e- colliders

Future electron-positron colliders will allow us to test Standard Model physics, especially for the electroweak sector, to an unprecedented level of precision, which could reveal signs for new physics that were previously inaccessible. This requires the theory side to put effort into two aspects. First, we need to link observables predicted by models to the experimental process in a model-independent and theoretically well-defined way. Secondly, we need to carry out the relevant radiative corrections up to the new precision frontier given by the future colliders for each experimentally and theoretically well-defined precision observable. In this talk, I will address some work done, also provide an outlook on future work concerning these two aspects.