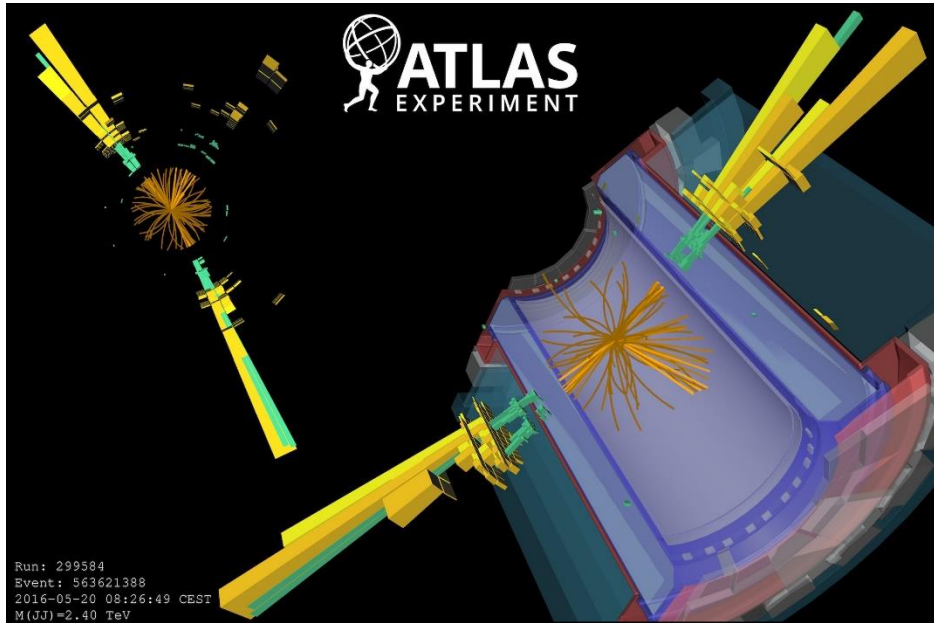




# COLLOQUIUM



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## **Simulation Studies and Search for New Physics with the ATLAS detector of LHC**

### **Abstract**

The discovery of Higgs boson (“God” particle) by ATLAS/CMS experiments at LHC of CERN in 2012 completed the Standard Model (SM) of particle physics and resulted in the award of the 2013 Physics Nobel Prize to the Higgs theory. As SM cannot explain some key questions about our Universe, ATLAS has been searching for new physics beyond current known physics framework which is the focus of the CSU Fresno ATLAS program. Simulation is vital in testing the SM and searching for new physics beyond the SM. In this colloquium I will describe my latest work in validating simulation with ATLAS test beam data and also report the latest results of our search for new physics in dijet final states with ATLAS detector. This work is the result of collaboration between ATLAS programs at Shandong University in China and CSU Fresno.

3-4:30 p.m., Friday, April 21<sup>st</sup> ; McLane Hall 162  
Refreshments served! All welcome,