

Fall 2019 Colloquium

Department of Physics & Astronomy, TAMU-Commerce

Nov 7, Thursday, 4-5 PM in Science Building 127

(coffee and cookies will be served at 3:50 PM)

Experimental Particle Physics

The fun and life of a physicist in ATLAS

Dr. Jingbo Ye

Southern Methodist University (SMU)



Dr. Jingbo Ye earned a B.Sc (1986) degree in Physics at the University of Science and Technology of China (USTC), and a Ph.D. degree (1992) in Physics at USTC in conjunction with the Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, and the Institute of High Energy Physics (IHEP) Beijing, China. His Ph.D. research topic was on quantum electro-dynamics, and he has always been an experimental physicist in the field of particle physics. After his degree he worked at USTC, CERN, before moving to SMU, and worked on data analyses, detector simulation and construction, with experiments L3, CLEO and ATLAS. In 2004 Dr. Ye began his appointment as an assistant professor at SMU where he has established the opto-electronics lab. He leads his team in the lab to excel in high speed data transmission of experiment data from particle physics detectors in challenging operating environment. His team set and maintains world records in transmission speeds of particle physics detector front-end optical link readout circuits and systems. More information about Dr. Ye and his research can be found at <https://www.physics.smu.edu/web/research/>

Abstract

I often use my brain doing my research but I always follow my heart in choosing my career. I am having so much fun in ATLAS (www.atlas.cern) that I never had to work a single day: I am enjoying my life! I will share my experience in the past decades (yes, with an s) in constructing the ATLAS detector, in particular the optical readout of the Liquid Argon Calorimeter that played a key role in the discovery of the Higgs boson. I will also talk about the current projects at SMU for the upgrades of the ATLAS detector to make it suitable for the operation in the new era of the High Luminosity LHC (Large Hadron Collider), paving the road for discoveries and precision measurements for the coming decades using the largest detector in particle physics on the collider of the highest energy human has ever built. Finally, I will offer a peek into the R&Ds we are doing at SMU that are aimed for physics experiments even beyond those at the HL-LHC.