

UNIVERSITY OF TEXAS AT DALLAS - DEPARTMENT OF PHYSICS
PHYSICS COLLOQUIUM

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Wednesday, November 14, 2007; 4:00-5:00 PM
Kusch Auditorium, FN 2.102

**Particle Physics and the ATLAS Liquid Argon
Calorimeter Readout: Present and the Future**

Professor Jingbo Ye

Department of Physics, Southern Methodist University

Particle physics at the Large Hadron Collider (LHC) will be discussed. The ATLAS experiment, especially its Liquid Argon Calorimeter and its electronics readout will be presented. The current R&D program at SMU for optical links and the radiation tolerant ASIC technology identification for ATLAS' two subsystems, the Inner Detector and the Liquid Argon Calorimeter upgrades for the high luminosity LHC (SLHC) will be introduced.

About the speaker: Dr. Ye got his undergraduate education in China. He then moved westwards and worked on software development for the L3 experiment in ETH Zurich, where he got his Ph.D. on photon final states analysis. After that he worked as a CERN scientific associate on several physics analysis topics including studies on the η production in gluon jets. Then Jingbo moved westwards again and landed in Dallas, where he got his hands dirty with precision mechanical jobs in the construction of the Ring Image Cherenkov (RICH) Detector for the CLEO III upgrades at Cornell. He joined the ATLAS collaboration in 1998 and took the responsibility of leading the R&D project for the ATLAS Liquid Argon Calorimeter optical link system. He is now responsible for two projects in the upgrade program for ATLAS Inner Detector and Liquid Argon Calorimeter optical readout for the LHC high luminosity upgrade. To do all these jobs, he established an opto-electronics lab at SMU. On the physics analysis side, Jingbo is working on Higgs search from the WW channel, and trying to look for magnetic monopoles with the ATLAS data. Jingbo is an experimental physicist, and he has been moving westwards, believing that the Earth is round.