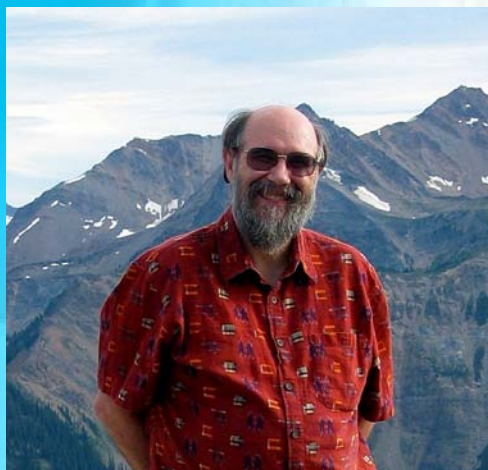


Physics Colloquium

Michigan Technological University

Thursday, December 2, 2010 at 4:00 pm

Room 139 Fisher Hall



The ATLAS Experiment at the LHC

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Abstract: The Large Hadron collider at CERN collides proton beams at the highest center of mass energy of any accelerator complex in the world. It has moved from commissioning of the accelerator complex to physics data taking this year. During this process, the collision rate rose by a factor of 10^5 . The ATLAS detector is one of four experiments running at the LHC. I will describe the general-purpose ATLAS detector and the LHC collider, and give a sampling of some early physics results from the 2010 data taking run.

Bio: Professor Linnemann did his undergraduate studies at St. Louis University, and his PhD at Cornell University in 1978, on a fixed-target experiment with a 11.5 GeV electron beam on a hydrogen target. His postdoc was spent with Rockefeller University at the CERN Intersecting Storage Rings studying collisions with proton, alpha, deuteron, and antiproton beams. In 1984 he moved to Michigan State university and has worked on the D0 experiment since then, including at different times responsibilities for the Level 3 and the Level 2 triggers. His collider physics interest have ranged from QCD production of protons, jets, and lepton pairs, to participating in the discovery the top quark, and searching for production of supersymmetric particles. In 2003 he spent a sabbatical at Los Alamos working on the Milagro cosmic TeV gamma ray experiment, and has shared time between collider physics and cosmic ray physics since then. He is currently in charge of electronics for the HAWC experiment (High Altitude Water Cherenkov: a successor to Milagro) under construction in Mexico, and is leading the simulation effort for the upgrade of the ATLAS Level 1 Calorimeter Trigger. He has a long-term interest in statistics as applied to both high energy physics and cosmic ray physics.