DOE review of TTU/HEP program
December 9, 2010

Program:

9:00	Introduction + Overview of TTU's research program	R. Wigmans
9:15	*TTU's contributions to the CMS experiment*	

Part 1: Electroweak physics and HCAL/HF performance — N. Akchurin

Part 2: New physics searches and Missing E_T — S. Lee

Part 3: Jet algorithms and Matrix Element analysis — I. Volobouev

11:15	*DREAM - Recent achievements and plans for 2011*	R. Wigmans
12:00	*Lunch*	
13:00	Discussion of the program and needs of the TTU group	HEP faculty

Brief history of the TTU/HEP group

1992 (Spring):   **RW** hired by TTU to establish new HEP group

Start detector R&D work for SSC experiments

(Fall):   **Alan Sill** joins TTU faculty

First year @ Fermilab to start up CDF effort

1993:   TTU becomes institutional member of CDF

SSC canceled

1994:   TTU group invited to join CMS

Vaia Papadimitriou joins TTU faculty

1995:   TTU group accepted in DOE HEP baseline program

2000:   **Nural Akchurin** joins TTU faculty

First two students graduate from our program

2002:   DREAM project started (supported by ADR & Texas funds)

2003:   V. Papadimitriou leaves TTU for Fermilab

2006:   **Sungwon Lee** and **Igor Volobouev** join TTU faculty

2008:   DREAM (Detector R&D) becomes a separate TTU/HEP task

Current membership of the TTU HEP group

Faculty members:

Dr. Nural Akchurin
Dr. Sungwon Lee
Dr. Igor Volobouev
Dr. Richard Wigmans

Dr. Alan Sill (adjunct, HPCC)

Postdocs:

Dr. Efe Yazgan (CERN)
Dr. Jordan Damgov (FNAL LPC)

Graduate students:

Chiyoung Cheong (FNAL LPC)
Youn Roh (FNAL LPC)
Kittikul Kovitanggoon (CERN)
Terence Libeiro

Undergraduate students:

Kenneth Verlage
Poonam Mane

The TTU Research Program

- *Task A*   *The CMS experiment at the Large Hadron Collider*

  - Detector construction (HF), maintenance
  - Detector calibration, run & data certification
  - Physics objects (MET, jet algorithms, jet energy scale)
  - Physics analyses (Electroweak, BSM)
  - Upgrade studies
  - Computing (T3)

- *Task B*   *The DREAM detector R&D project*

  - Project management
  - Construction of SuperDREAM fiber calorimeter
  - Beam tests
  - Data analysis