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## **Cryogenic improvements for the ATLAS accelerator energy upgrade**

*Wednesday, 24 September 2008 09:00 (25 minutes)*

The ATLAS accelerator is a product of staged construction beginning in 1978. It serves as a national user facility for accelerating heavy ions at energies in the vicinity of the Coulomb barrier. The accelerator is divided into 3 sections with a refrigerator cooling each section through an interconnected forced flow distribution system. ATLAS acquired a CTI model 2800 from Lawrence Livermore National Laboratory as part of a major upgrade to the ATLAS accelerator. This refrigerator was installed to provide cooling capacity for a new upgraded cryostat and to address other system issues related to the staged construction, forced flow distribution and narrow operating margin. The refrigerator sustained substantial damage during shipment and had several leaks which required extensive repair. An overview of the upgraded ATLAS cryogenic system and refrigerator repairs will be presented.

**Proposed for workshop session (see call for abstracts): 1- Operation 2- Maintenance 3 - Safety 4 - Control**

Operation

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