



LHC Seminar

SPEAKER: Alexander Milov (Weizmann Institute of Science (IL))

TITLE: **Recent ATLAS Heavy Ion results**

DATE: Tue 25/09/2012 11:00

PLACE: Main Auditorium

ABSTRACT

Lead nucleus collisions in the LHC recreate the state of matter which existed when the universe was a few microseconds old. This super-hot matter, composed of quark and gluons, emits thousands of particles as it expands, cools and converts back into hadrons. The ATLAS detector provides an excellent opportunity to perform detailed studies of this novel state of matter, measuring its bulk properties and its response to penetrating probes. Recent studies of particle correlations and fluctuations shed light on the initial geometry and its evolution into the final state. Studies of jet suppression and fragmentation show how the energetic partons interact with the medium. High precision measurements of boson production and first results on boson-jet correlations are important steps towards quantitative understanding of the parton energy loss mechanism.