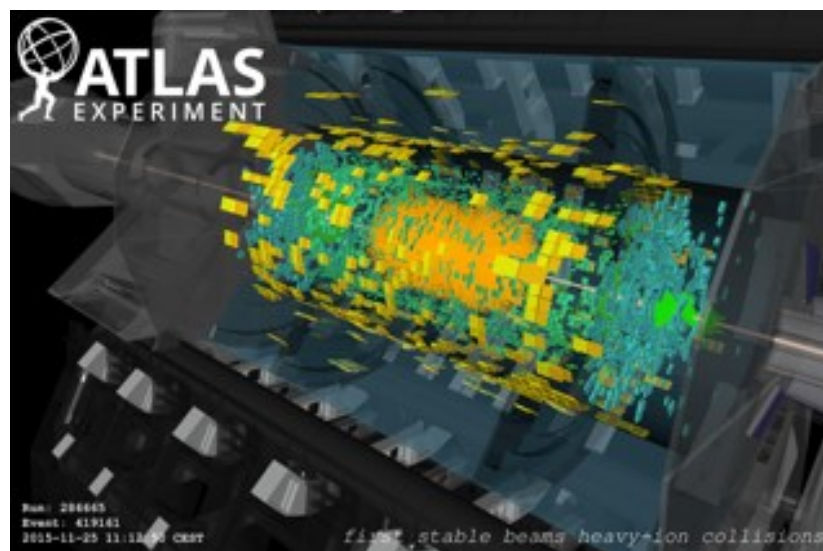


Recent results from the ATLAS heavy ion physics program.

Peter Steinberg (Brookhaven National Laboratory)

Tuesday, 12 July 2016, 16:45 h, DESY Auditorium



The ATLAS detector at the Large Hadron Collider at CERN has been taking data with energetic lead beams since 2010, with lead-lead collisions in 2010, 2011 and 2015, and proton-lead collisions in 2013. These data have been used to elucidate the properties of the hot, dense matter produced in these collisions, which is understood to be a deconfined plasma of quarks and gluons reaching temperatures exceeding 5.5 terakelvin (more than 100,000 times the temperature of the core of the sun) and which evolve like a near-perfect fluid. Recent results from Run 1 (at 2.76 TeV per nucleon pair) and Run 2 (at 5.02 TeV) will be presented, including discussions of in-medium jet modification, collective behaviour in small and large systems, and first results on particle production induced by the strong electromagnetic fields of the nuclei in “ultra-peripheral” collisions. Physics prospects for the heavy ion program in Run 2 and beyond will also be discussed.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

