

U.S. DEPARTMENT OF  
**ENERGY**Office of  
Science

Contribution ID: 113

Type: **not specified**

## FCC-hh as a heavy-ion collider

*Tuesday, 24 March 2015 16:30 (20 minutes)*

Like the LHC, the FCC-hh could provide nucleus-nucleus and proton-nucleus collisions at unprecedented energies of 38.5 and 62 TeV per colliding nucleon pair. First studies have shown that an efficient new collider regime with emittance evolution governed by strong synchrotron radiation damping can be fully exploited to yield high integrated luminosity, even using the present LHC Pb beams. Upgrades to the heavy-ion injectors require further study but could yield still higher performance. If foreseen from the beginning, the modifications to the collider rings seem modest: certain requirements on the RF and beam instrumentation and some additional collimators. The advantages of switching from lead to other species are discussed. Requirements for further work are outlined.

**Presenter:** JOWETT, John (CERN)**Session Classification:** FCC-hh