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## **Jets and charged hadrons in heavy ion collisions with the ATLAS detector**

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Ultrarelativistic heavy ion collisions at the LHC produce the Quark Gluon Plasma. Jets are a useful probe to study this state of matter as they are produced at the early stages of the collisions and are expected to be modified as propagating through the medium. One observable is the energy loss lowering the jet yields at a given transverse momentum. Other observables are the modification of the dijet momentum balance and the modification of fragmentation functions. A phenomenon strictly correlated to the jet energy loss is the modification of the charged-hadron momentum spectrum. The large new Pb+Pb data sample collected by ATLAS in Run 2 allows precision measurements of these observables in a wide transverse momentum range and in different centrality and rapidity intervals.

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