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Probing the Quark Gluon Plasma with Jets from RHIC to the LHC

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Jet quenching, the experimental observation of partonic energy loss in the quark gluon plasma (QGP), is one of the major discoveries of the heavy ion program at RHIC. Our understanding of jet quenching and its dependence on temperature is enhanced by the LHC, which has provided a wealth of results with fully reconstructed jets. This talk will explore the current results from RHIC and LHC in an attempt to quantify jet suppression in the QGP and answer the following set of questions. How does temperature relate to jet quenching? How does energy loss depend on pathlength? Where does the lost energy go? How is the fragmentation function modified? What effect does cold nuclear matter have on jet production?