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High-pt particle production and its modifications in nucleus-nucleus collisions at RHIC

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One of the most striking results from RHIC is the strong suppression of high-pt particle production observed in nucleus-nucleus collisions. Di-hadron correlations of high-pt particles clearly demonstrate that these particles originate from fragmentation of high-pt partons and that these particles are strongly absorbed by the hot and dense medium in central Au+Au collisions. I will review the relevant results on particle spectra, nuclear modification factor, elliptic flow and di-hadron correlations at high-pt with focus on the new results from the high-statistics RHIC run 4 which have significantly reduced statistical uncertainties and cover a larger range in pt than the existing results. RHIC has also recorded Cu+Cu collisions at 200 GeV this year, to systematically explore the path-length and system size dependence of the observed suppression. If available, first results from this run will also be discussed.