

# Calibration of Quark versus Gluon Jet Tagging Variables Using Two Event Topologies with the ATLAS Detector

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Distinguishing quark-initiated from gluon-initiated jets is useful for many measurements and searches at the LHC. Development of tools for distinguishing quark- from gluon-initiated jets are potentially useful. However, there arises difficulty from the topology dependence of quark-versus-gluon jet tagging. The dijet topologies either dijet back to back or dijet plus a gamma (quark dominated) or dijet plus a third jet (gluon dominated) should be used to output the quark and gluon tagging efficiencies as function of the jet  $p_T$  and  $\eta$ , in both data and simulation and will be used to derive also scale factors for the Monte Carlo rejections and efficiencies.

## Type

Parallel talk

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