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A Method for Identifying Gluon Jets with High Purity in 3-jet Hadronic Z Decays

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**Abstract:** A method for identifying gluon jets with very high purity is presented and the performance evaluated. Quark and gluon jets from Monte Carlo simulated Hadronic Z decays are identified by energy ordered jets and applying heavy flavour tagging. It is shown that quark and gluon jets can be identified with a purity of about 98%.

**Key Words:** Three-Jet; Gluon purity; B-tag; Z Boson



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