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Improving the Simulation of Quark and Gluon Jets with Herwig 7

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The properties of quark and gluon jets, and the differences between them, are increasingly important at the LHC. However, Monte Carlo event generators are normally tuned to data from e+e− collisions which are primarily sensitive to quark-initiated jets. In order to improve the description of gluon jets we make improvements to the perturbative and the non-perturbative modelling of gluon jets and include data with gluon-initiated jets in the tuning for the first time. The resultant tunes significantly improve the description of gluon jets and are now the default in Herwig 7.1. The talk will be base on our recent publication Eur.Phys.J. C77 no.12, 876.

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