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Associated production of W and Z bosons with jets from light and heavy quarks

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The associated production of jets and vector bosons allows for stringent tests of perturbative QCD calculations and is sensitive to the possible presence of new physics beyond the Standard Model. The mechanism of production of heavy quarks in association with a W or a Z, in particular, is only partially understood. A measurement of jet production rates in association with W and Z bosons in proton-proton collisions at a 7 TeV center-of-mass energy is presented, using data collected with the CMS detector. The measured jet multiplicity distributions corrected for efficiency and unfolded for detector effects are compared with theoretical predictions. Measurements of the Z+b-tagged jet(s) cross sections and angular correlations are presented. Finally, results for the W+c production rate are also shown.

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**Collaboration Name
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