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## **[363] Deep neural network based simultaneous b-jet energy correction and resolution estimator**

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The multi-dimensional energy correction for jets arising from bottom-quarks is presented. The study is performed on a simulated dataset of jets produced in 13 TeV proton-proton collisions. The energy correction is computed through a regression based on a deep neural network. The b-jet regression is trained on jet properties and jet composition information. The b-jet energy correction and jet resolution estimator are output simultaneously by the neural network, providing information that can be used to improve the sensitivity of several CMS analyses with b-jets in the final state.

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