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## **Uncertainties on Higgs and $t\bar{t}$ predictions at the LHC from CTEQ-TEA Global Analysis**

*Tuesday, 29 April 2014 15:36 (24 minutes)*

We study the uncertainties of the Higgs boson and  $t\bar{t}$  production cross sections at the LHC arising from the uncertainties of the parton distribution functions (PDFs) and of the value of the strong coupling constant  $\alpha_s(M_Z)$ . We investigate the robustness of the commonly-used Hessian approach by comparing with the more-general Lagrange Multiplier method within the CTEQ-TEA global analysis, for the two processes.

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