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The PROSA PDF fit and prompt neutrino fluxes

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Prompt neutrino fluxes are background for searches of astrophysical neutrinos at Very Large Volume Neutrino Telescopes. We present predictions for these fluxes, obtained by state-of-the-art QCD methods, and we discuss their uncertainties, in particular those related to our approximate knowledge of Parton Distribution Functions. We make use of the PROSA fit, the first fit appeared in literature including LHCb data on heavy-meson hadroproduction, specifically designed for low- x physics.

We present the present status of the fit and prospects for future developments.

We compare our predictions with experimental data from the IceCube collaboration.

Experimental Collaboration

PROSA Collaboration

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