

Inclusive Higgs-Jet production in high-energy hadron collisions

We present recent BFKL phenomenological results for the inclusive production of a Higgs in association with a jet, as a testfield for the semi-hard regime of QCD. We show how the large energy scales provided by the emission of a Higgs boson stabilize the BFKL series, and discuss the possible extension of this work in the full NLA BFKL analysis, by including the NLO jet impact factor, with a realistic implementation of the jet selection function, and the NLO forward-Higgs impact factor.

Authors: CELIBERTO, Francesco Giovanni (ECT*/FBK Trento & INFN-TIFPA); FUCILLA, Michael (Università della Calabria & INFN-Cosenza); IVANOV, Dmitry Yu (Sobolev Institute of Mathematics); MOHAMMED, Mohammed Maher Abdelrahim (Università della Calabria & INFN-Cosenza); PAPA, Alessandro (Università della Calabria & INFN-Cosenza)

Presenter: MOHAMMED, Mohammed Maher Abdelrahim (Università della Calabria & INFN-Cosenza)