

High-energy resummation for Higgs boson plus jets production

Thursday, November 10, 2022 4:20 PM (15 minutes)

At high energies, fixed-order predictions for the production of a Higgs boson together with one or more jets suffer from large logarithms in invariant masses over transverse momenta. We resum these high-energy logarithms to all orders using the High Energy Jets (HEJ) framework, retaining the exact dependence on the top-quark mass. We compare our predictions to ATLAS and CMS measurements at 8 and 13 TeV.

Type of talk

Theory

Primary authors: MAIER, Andreas Martin (DESY); Dr PAPAEFSTATHIOU, Andreas (Kennesaw State University, GA, USA); HASSAN, Hitham (IPPP, University of Durham); SMILLIE, Jennifer (Higgs Centre for Theoretical Physics, Edin. U.); ANDERSEN, Jeppe Rosenkrantz (IPPP, University of Durham); PALTRINIERI, Jérémy (University of Edinburgh)

Presenter: MAIER, Andreas Martin (DESY)

Session Classification: Thursday Session A

Track Classification: Physics Topics: Precision measurements