



Contribution ID: 24

Type: Long talk (20 mins)

High Energy Jets (HEJ) applied to Higgs plus jets processes

Friday, 16 December 2022 13:00 (30 minutes)

In order to further study the coupling of the Higgs boson to vector bosons at the LHC, experimentalists use Vector Boson Fusion (VBF) cuts of large invariant mass between jets to isolate the relevant production mode. While this is efficient in suppressing the QCD background, it has the drawback of enhancing high-energy large logarithms effects to all orders in the strong coupling which must be resummed, resulting in a suppression of the cross-section compared to fixed-order at large Δy_{12} or large m_{jj} .

In this talk, I will outline the HEJ framework and present recent studies of $H + \geq 1j$ and $H + \geq 2j$ processes which highlight how numerically significant these logarithms are at LHC energies, and thus in future colliders.

Type of presentation

20 minute talk

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Phenomenology

Primary author: PALTRINIERI, Jeremy (University of Edinburgh)**Co-authors:** ELRICK, Conor (University of Edinburgh); HASSAN, Hitham (Durham University (1st year PhD student))**Presenter:** PALTRINIERI, Jeremy (University of Edinburgh)**Session Classification:** Full Length Talks