

Contribution ID: 97

Type: not specified

Super-Resolution for QCD and Top Jets

Wednesday 7 July 2021 17:40 (20 minutes)

QCD-jets at the LHC are described by simple physics principles. We show how super-resolution generative networks can learn the underlying structures and use them to improve the resolution of jet images. We test this approach on massless QCD-jets and on fat top-jets and find that the network reproduces their main features even without training on pure samples. In addition, we show how a slim network architecture can be constructed once we have control of the full network performance.

Academic Rank

Master Student

Affiliation

Heidelberg University

Authors: BUTTER, Anja; WHITESON, Daniel (University of California Irvine (US)); KASIECZKA, Gregor (Hamburg University (DE)); HOWARD, Jessica Nicole (University of California Irvine (US)); BLECHER, Lukas (Universität Heidelberg); BALDI, Pierre (UCI); PLEHN, Tilman

Presenter: BLECHER, Lukas (Universität Heidelberg)

Session Classification: Simulation and Generative Models