Contribution ID: **43** Type: **not specified**

Resolved Top Tagger in CMS

Thursday 21 July 2016 12:05 (20 minutes)

Summary

A variety of techniques have been developed for reconstructing top quark decays at high Lorentz-boost, however tops are often produced at low momentum in many compelling BSM physics models. We present a novel tagger for the identification of hadronically decaying tops with low to moderate pT. The Resolved Top Tagger (RTT) is an MVA-based discriminant that utilizes jet properties and kinematics to reconstruct top decays in the non-boosted regime. The performance of the RTT is characterized in data and in simulation using an innovative adaptation of the familiar tag-and-probe technique. The RTT has been used to achieve significant gains in the CMS search for Dark Matter produced in association with top quark pairs at sqrt(s) = 13 TeV.

Presenter: SEVOVA, Stanislava (Northwestern University (US))

Session Classification: Plenary