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Boosted top tagging and measurement of boosted top polarization using jet images

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The chiral nature of the top quark couplings can be modified by new physics. Hence, the polarization of top quarks serves as a promising window for exploring the existence and nature of new physics. Detecting the polarization of boosted top quark jets in colliders is quite challenging, and several studies have already explored different kinematic variables for this purpose. In my talk I will describe some novel image-based neural networks that can be used to tag and measure the polarization of both leptonic and hadronic boosted top jets. I will detail the performance of these algorithms and compare them to the existing techniques in the context of improving the search sensitivities of a few interesting physics processes.

Secondary track (number)

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