Contribution ID: **179** Type: **Flash-talk and poster/pre-recorded talk**

Colouring the Higgs boson

Wednesday 14 July 2021 15:30 (5 minutes)

The study of hadronic jet substructure has become a burning topic in recent years, bringing to a high request for designing precise observable to understand it. A novel observable, called the "Jet Colour Ring", aims at constructing a colour tagger, able to discriminate the decay of a colour-singlet into two jets from a two-jet background in a different colour configuration. The Jet Colour Ring performances were assessed in simulation, by applying it to the case of the production of a boosted Higgs boson decaying in two b-quarks and an associate electroweak boson. Notable discriminator powers when comparing the performances with other observables were observed, opening a wide scenario for further studies.

Preferred track

Hadron Structure

Primary authors: BUCKLEY, Andy (University of Glasgow (GB)); CALLEA, Giuseppe (University of Glasgow (GB))

Presenter: CALLEA, Giuseppe (University of Glasgow (GB))

Session Classification: Flash Talks

Track Classification: Hadron spectroscopy and heavy-flavour physics