

Preliminary studies for a STXS simplified fiducial decay volume for the four lepton final state of the Higgs boson.

To describes a preliminary simplified fiducial decay selection for the H to 4l channel to be used with STXS measurements in order to reduce acceptance corrections needed in the presence of BSM contributions in the H to 4l decay. The simplified fiducial decay selection is Lorentz invariant in order to have a production mode and boost independent acceptance. The reconstruction fraction as function of critical H to 4l decay observables shows the same behavior for the SM and BSM samples which should largely avoid the need for acceptance corrections for BSM interpretations of the H to 4l STXS measurements.

Primary author: 李, 涵 (山东大学前沿交叉科学青岛研究院)

Presenter: 李, 涵 (山东大学前沿交叉科学青岛研究院)

Session Classification: 分会场一

Track Classification: TeV 物理和超出标准模型新物理