Contribution ID: 42

Tau reconstruction exploiting ML techniques

Hadronically decaying tau leptons are powerful probes for electroweak physics. The precise measurement of their properties is key to measuring the properties of vector and scalar bosons, as well as the structure of the Yukawa coupling. This project focuses on exploiting machine learning techniques to reconstruct tau decays in collider experiments, as well as achieve an optimal reconstruction of their properties.

Field

B1: Particle physics analysis (software-oriented)

DESY Place

Hamburg

DESY Division

FH

DESY Group

CMS

Special Qualifications:

Decent knowledge of python programming language. A basic understanding of physics reconstruction at collider experiments would be useful to expedite the start of the project.

Primary author: CARDINI, Andrea (CMS (CMS Fachgruppe HIGGS))

Co-authors: SHCHEDROLOSIEV, Mykyta (CMS (CMS Fachgruppe Searches)); BHATTACHARYA, Soham (CMS (CMS Fachgruppe Searches))