Contribution ID: 17

Top quark mass measurement in lepton and jets final state at the CMS experiment

Friday 6 January 2023 18:20 (15 minutes)

Our analysis is a direct top quark mass measurement where the mass is extracted from the reconstruction of the top quark decay products. The analysis operates on a lepton and jets final state in top quark pair event topology. Our analysis is based on a binned profile likelihood method which has been introduced to the top quark mass measurements at CMS during the LHC Run II data taking period.

This analysis strategy shows a great promise for an accurate direct top quark mass measurement. The connection to the top quark pole mass is however left as a somewhat open question.

Primary author: MYLLYMAKI, Mikael (Helsinki Institute of Physics (FI))Presenter: MYLLYMAKI, Mikael (Helsinki Institute of Physics (FI))Session Classification: Contributed Talks V

Track Classification: Precision measurements