



Analysis Status and Plan

Search for Four top in Tau Final States

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June 21, 2022



Outline

① Current status

② Future plan

Section 1

Current status



TTTT current status

- Link to last status report in TTX subgroup(27th April):
<https://indico.cern.ch/event/1140155/>
- HLT study done
 - Decided on a HT+multiple jets+ b tag trigger combination for 2016-2018
 - SF and uncertainty derived
- BDT optimization done in 1tau1l and 1tau2l channels
- QCD estimation in 1tau0l using fake rate method
- Expected results in 1tau0l(HT) and 1tau1l(BDT) and 1tau2l (BDT) 2tau1l(HT), combination leads to 0.83 expected significance and 3.30 expected limit

Section 2

Future plan



Todo list

- CADI line application
- Analysis note
- Overlap removal with SS
 - ask for the object definition from SS
 - study and perform overlap removal and rerun analysis
- Systematic study (ongoing)
- Variable distribution validation in control region
- QCD estimation in 2017 and 2018