

# Four Top Analysis Current Status and Future Plan

## Progress Report on Tau Final States of TTTT

Fabio Lemmi<sup>1</sup>   **Huiling Hua**<sup>1</sup>   Hongbo Liao<sup>1</sup>   Hideki Okawa<sup>2</sup>  
Yu Zhang<sup>2</sup>

<sup>1</sup>IHEP

<sup>2</sup>Fudan University

Weekly Meeting

# Outline

# Things I am working on

- Systematic uncertainty study
  - ▶ rate uncertainties(Luminosity..)
    - assigned a log-normal probability density function
  - ▶ shape uncertainties
    - modelled via a polynomial interpolation with a Gaussian constraint
    - affect also the shape of the distributions and yield
  - ▶ Producing templates with up and down variation of systematic uncertainty source
  - ▶ standard procedure for the systematic study?
- Binning strategy of templates for combine

# Todo list and plan

- checking of object selection(XiaoNan)
  - ▶ check about our object selection with Twiki recommendation
  - ▶ check the difference of object selection between 2016 and 2017 and 2018
  - ▶ check the object definition of SS group with ours
- trigger study of 2017 (Hongbo)
- bg estimation of 2tau0l (Hongbo)
- MVA of 2017 and 2018( Huiling )
- systematic uncertainty study (Huiling, on it, 1 month)
- combination of all subchannels (Huiling, framework done)
- AN writing