

Current status

- Tau decay mode selection

Some bugs were found (did not run IsolatedLeptonTaggingProcessor)
→ e, μ decay selection were strange

Forgot to separate each event

$$m_{\tau\tau} > 240 \text{ GeV}, \quad m_{\tau\tau} > 75 \text{ GeV}, \quad m_{\tau\tau} > 0 \text{ GeV}, \quad \mu\mu \text{ event}$$

the decay mode selection efficiency are still not very good.

→ Separate cut variables ($m_\gamma, m_{\pi\gamma}, \dots$) by decay mode
and tune cut condition

- Tau polarisation precision measurement

I still don't know how to handle multiple solutions but will compare the result with

- Jackknife method

- Pseudo-experiment

Use all solutions as they are. (not good)
Several entries / event → not independent

Take the average of all solutions.
If each tau has several solutions, apply equal weight

$$\text{weight} = \frac{1}{n_\tau \cdot n_{sol}}$$

I will prepare some slides and
explain in detail next week...