# What's new
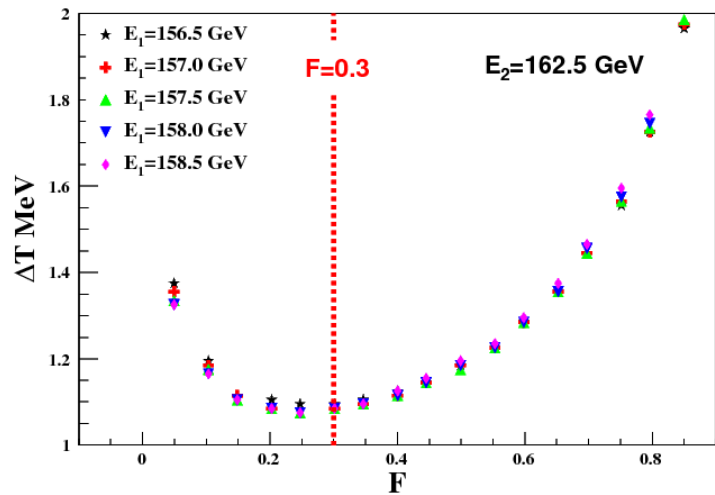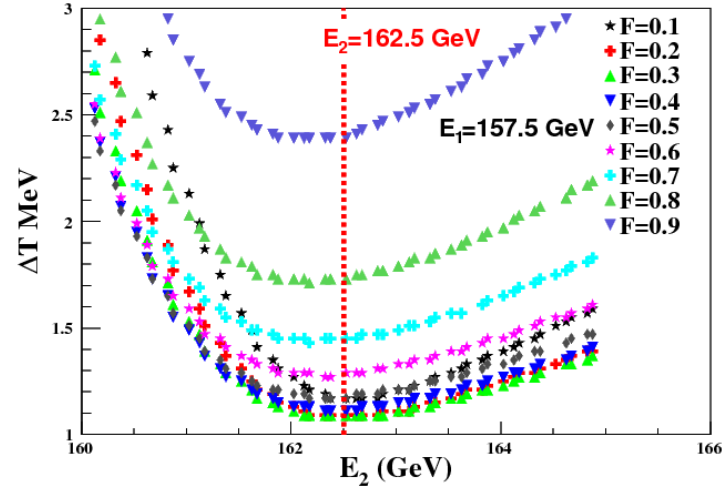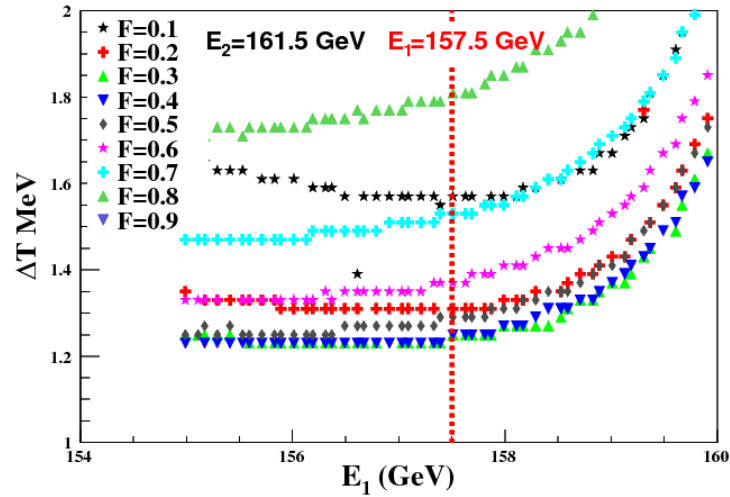
➢ Check the result

    1. Change the input $m_W$ with current data taking scheme

    2. Re-optimizing with $m'_W$

➢With the new data point: $E=172$GeV, $L=0.5ab^{-1}$, update preliminary results.

➢Preparing the note

# Check the result

| Input/output | $m_W$ (MeV) | $\Delta m_W$ (MeV) | $\Gamma_W$ (MeV) | $\Delta\Gamma_W$ (MeV) |
|---|---|---|---|---|
| 80.385 GeV | 80385.0±0.03 | 0.98±0.02 | 2084.5±0.09 | 2.90±0.07 |
| 80.370 GeV | 80370.0±0.03 | 1.00±0.02 | 2085.0±0.09 | 2.91±0.07 |

# Check the result (3D scan)



The results are consistent with $m_W = 80.385$ GeV

# Comparison of stat. uncertainty

| Data points | $\Delta m_W$ (MeV) | $\Delta \Gamma_W$ (MeV) | $\Delta m_W$ (MeV) | $\Delta \Gamma_W$ (MeV) |
|:---:|:---:|:---:|:---:|:---:|
| 1 | 0.68 | - | 0.85/0.85 | - |
| 2 | 0.81 | 2.72 | 1.02/1.00 | 3.44/3.21 |
| 3 | 0.81 | 2.73 | 1.03/1.00 | 3.45/3.21 |

Previous optimized results
$L$=3.2 ab$^{-1}$

With/without the additional data point
$L$=2.0 $ab^{-1}$

# Next to do

➢ Check the $5$D scan results with $m'_W$

➢ Compare the systematic uncertainty with additional data point

➢ Prepare the note