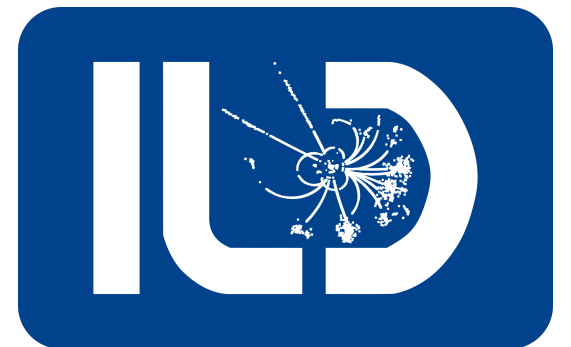
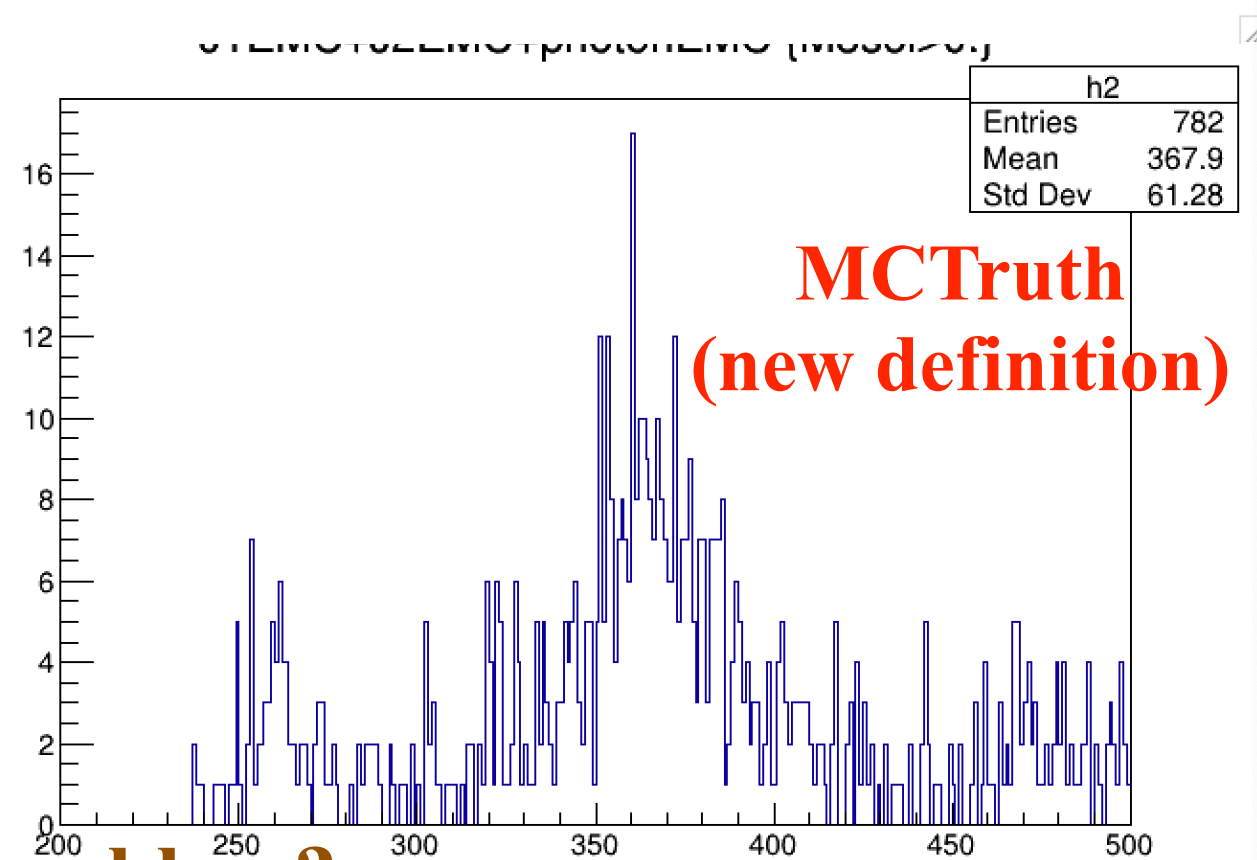
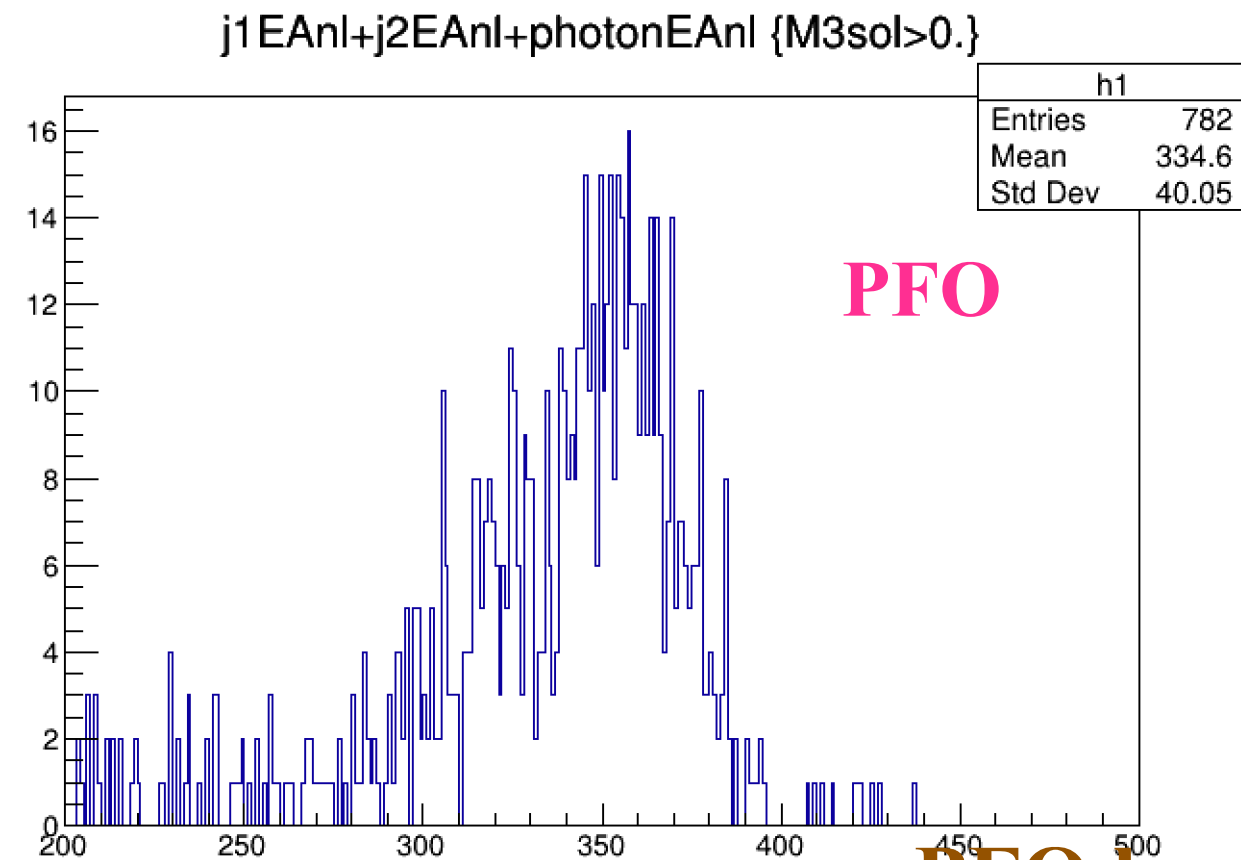
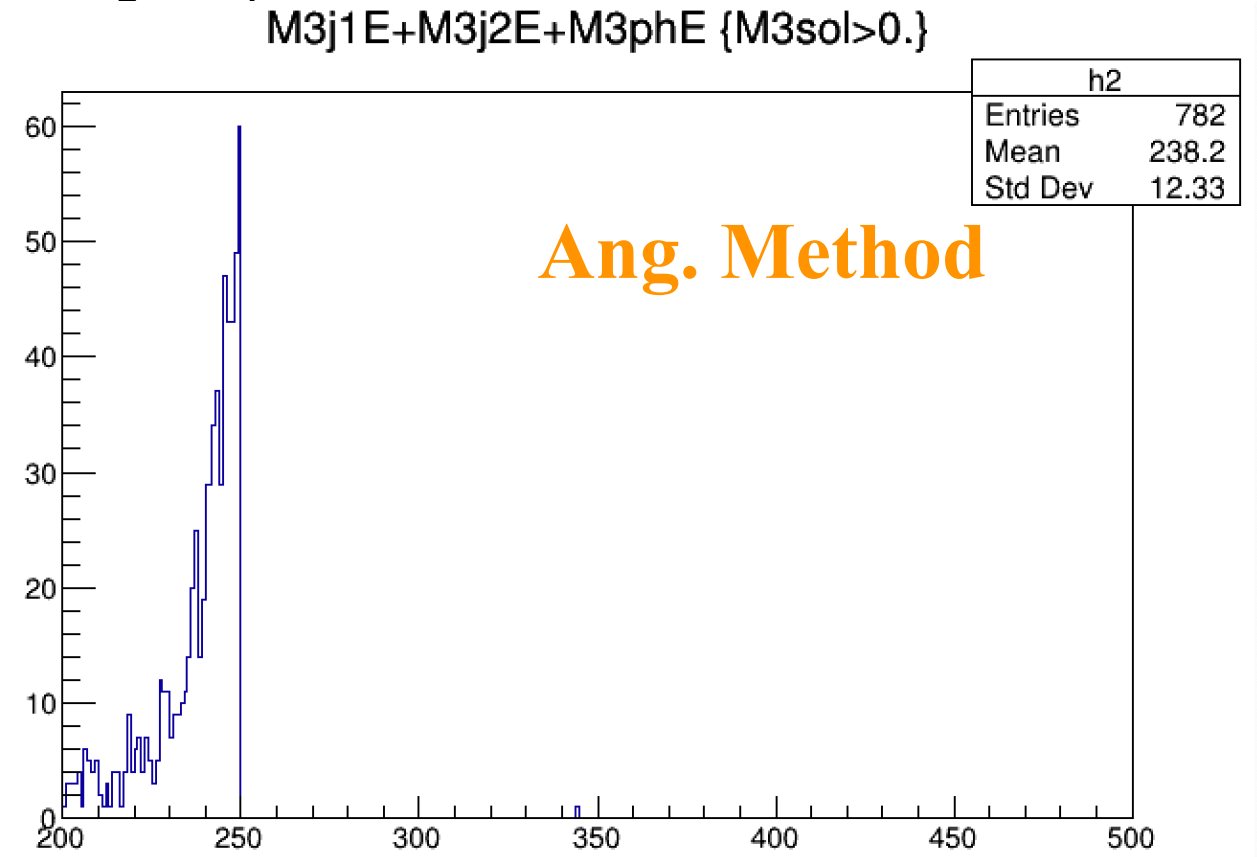
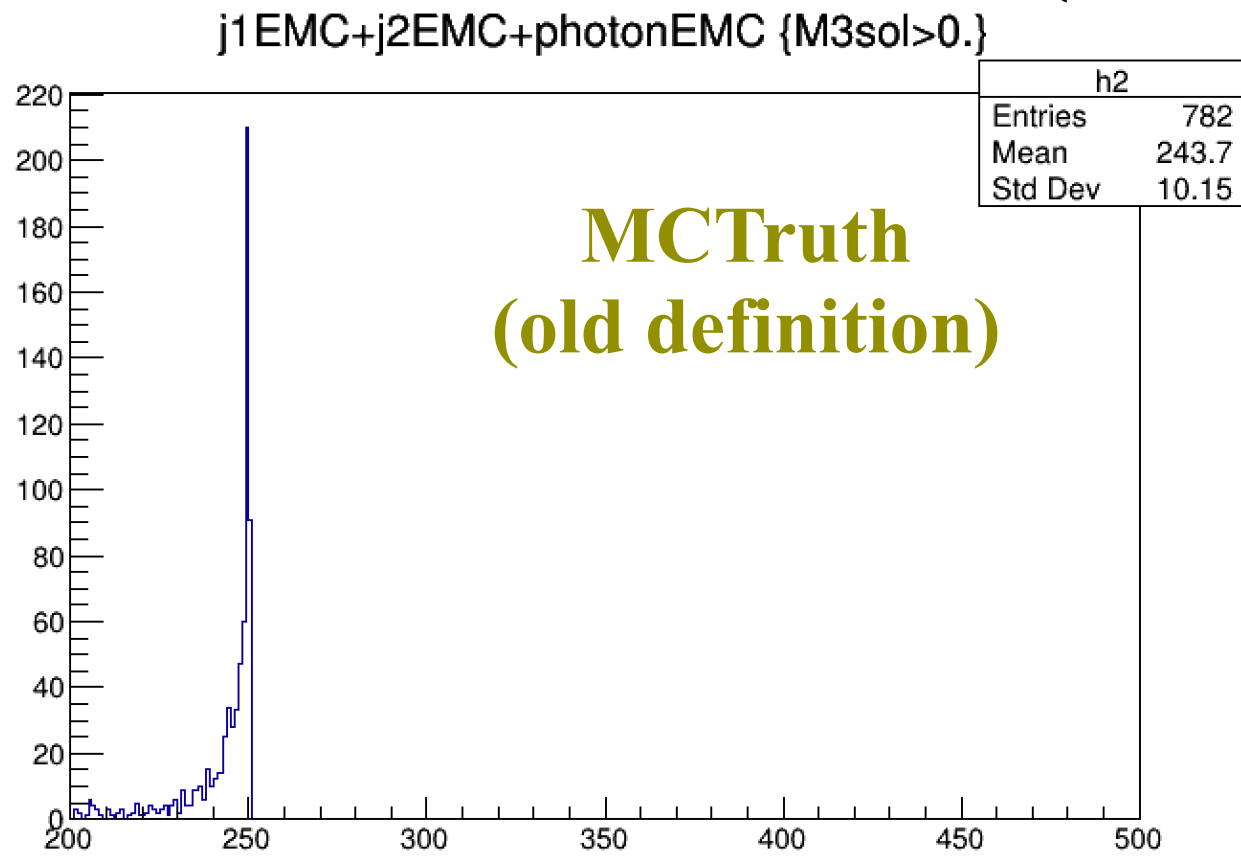


Jet Energy Scale Calibration using $e^+e^- \rightarrow \gamma Z$ process at the ILC

Takahiro Mizuno
SOKENDAI



Total (J1+J2+photon) Energy (new sample)

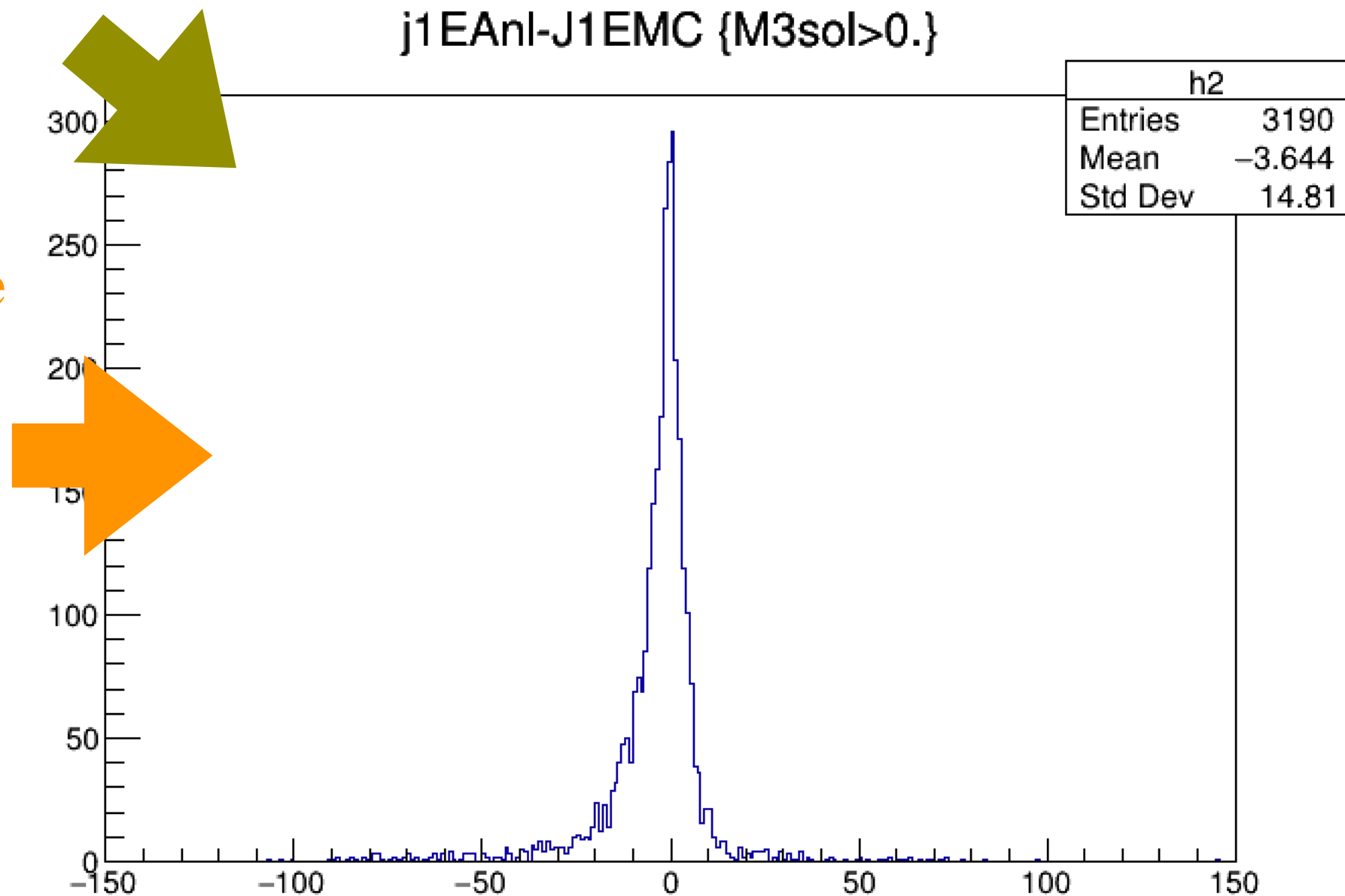


PFO has a problem?

PFO overestimation and MC overestimation

- **.xml file had a problem.**
Input for the MyJetPFOsCollectionProcessor should contain only jet particles. However, signal photons are included.
-> as for the JPFO - JMC,
there were large tail in the negative region.
-> MC is overestimated

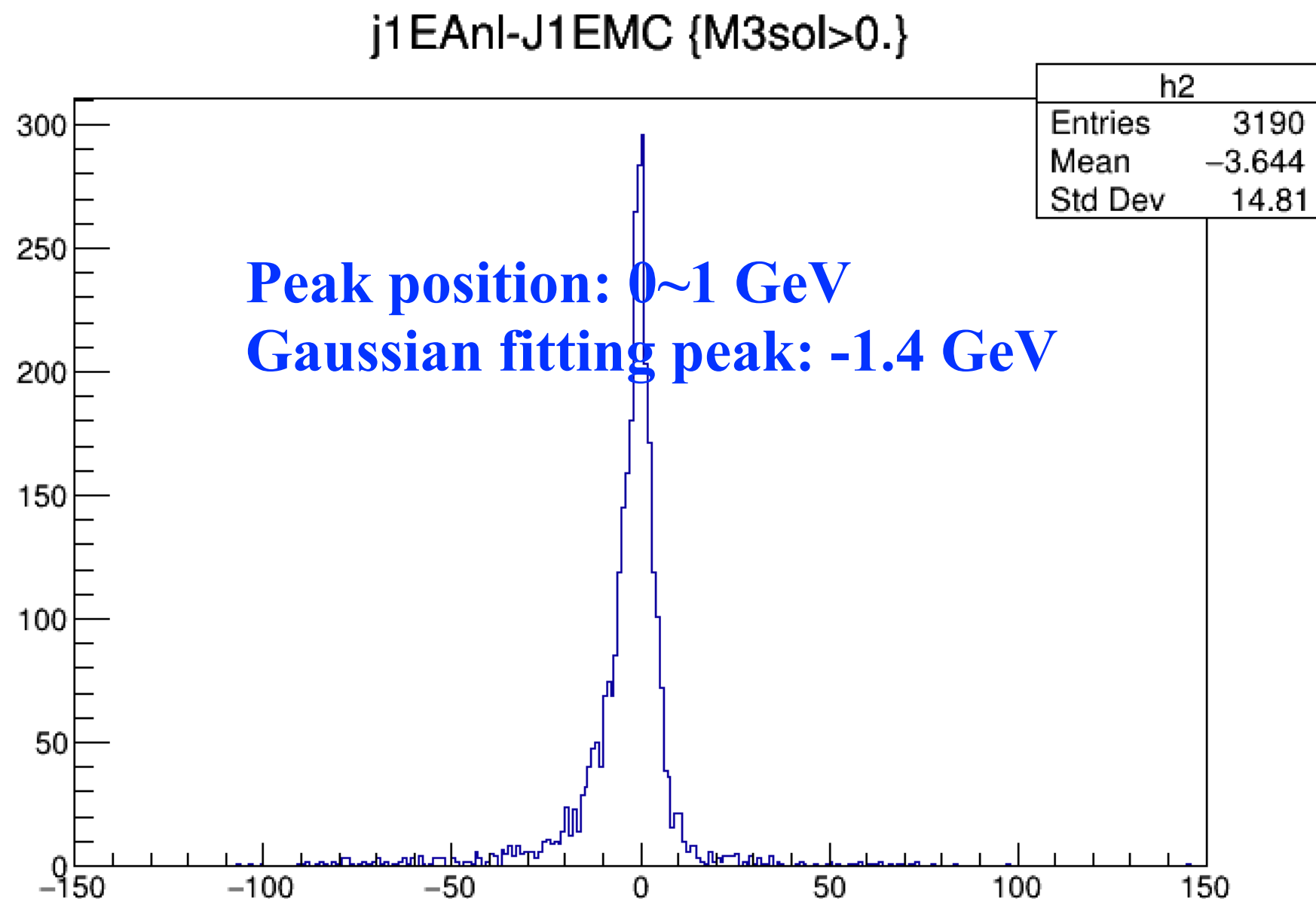
- **Source code is modified so as to delete the double counting by removing those which have a parent which is also in the list.**
- **MC overlay is also removed.**



MC overestimation

- **.xml file had a problem.**
Input for the MyJetPFOsCollectionProcessor should contain only jet particles. However, signal photons are included.
-> as for the JPFO - JMC,
there were large tail in the negative region.
-> MC is overestimated

- **Source code is modified** so as to delete the double counting by removing those which have a parent which is also in the list.
- **MC overlay is also removed.**



MC overestimation

Peak position: 0~1 GeV

Gaussian fitting peak: -1.4 GeV

- To ameliorate the situation, now trying to compare two jets and see whether there are same particles in both jets and the parents of them are counted twice.

- Source code is modified so as to delete the double counting by removing those which have a parent which is also in the list.

- MC overlay is also removed.

j1EAnl-J1EMC {M3sol>0.}

