Status 5/24

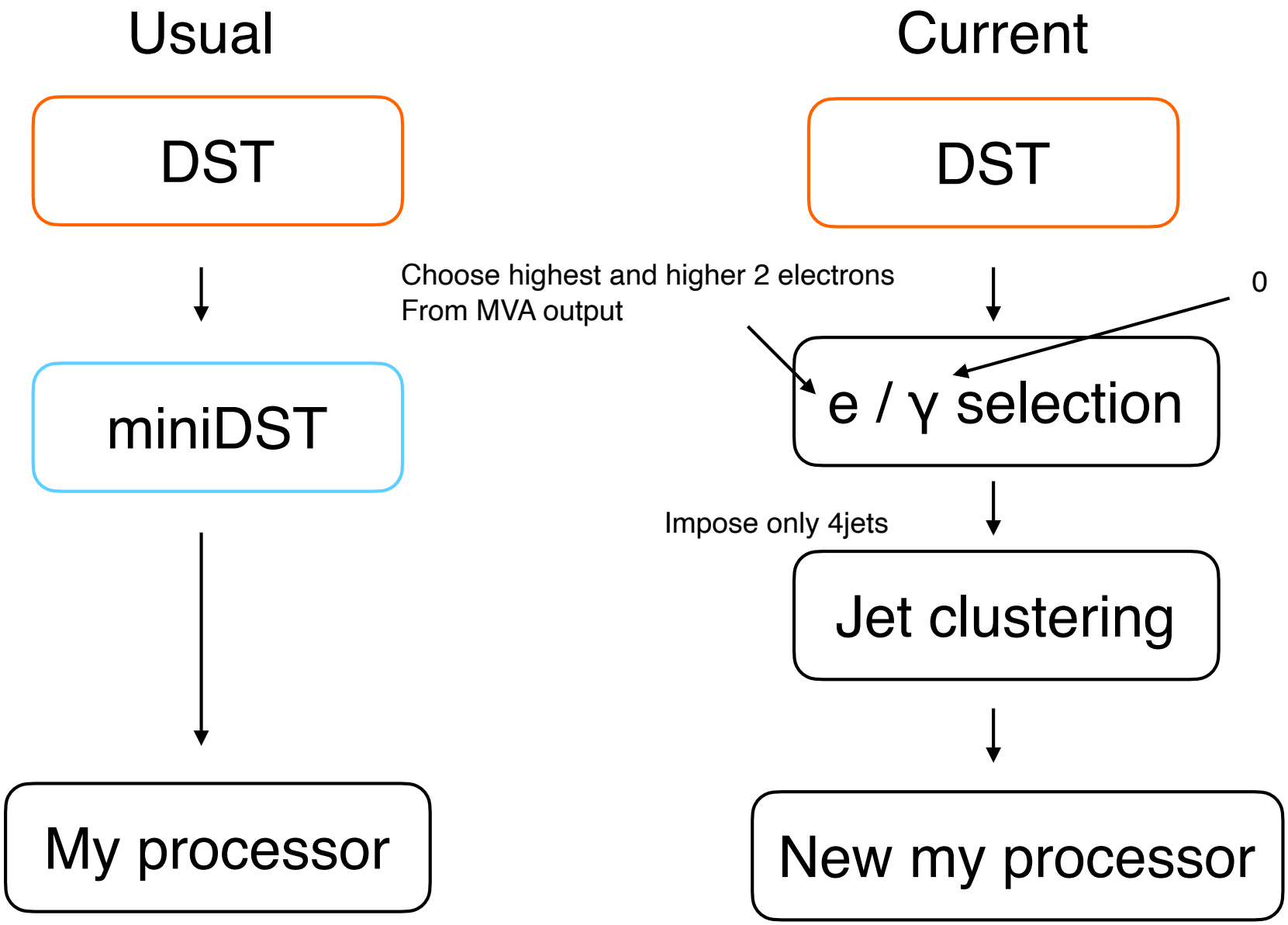
Issue: lose many isolated electron in the point of precut

1. Changing MVA cut is insufficient for improving this issue.

2. To select 2 isolated electrons accurately, we need to reject isolated electrons from B decay.
→Impact parameter is effective

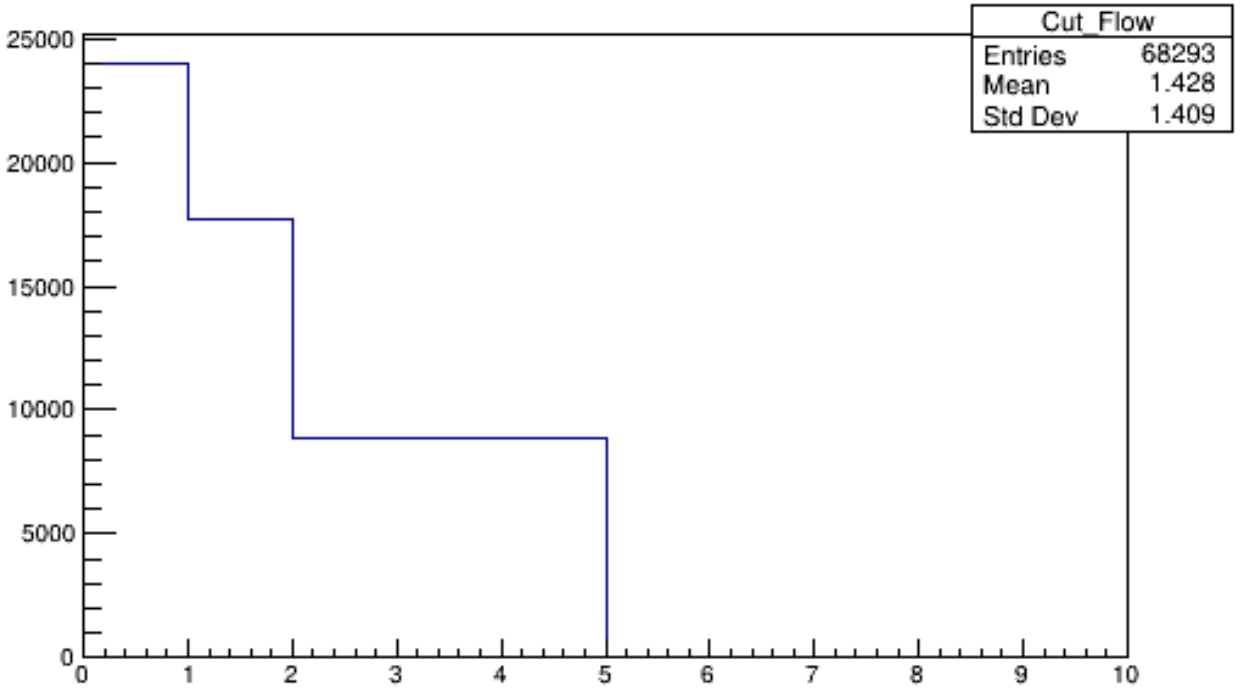
3. miniDST doesn't store "impact parameter" but DST keeps it
→ forget miniDST

Processor


Usual
DST
miniDST
My processor
Current
DST
Choose highest and higher 2 electrons
From MVA output
0
e / γ selection
Impose only 4jets
Jet clustering
New my processor

M_{RHN} = 100 GeV

eRpL



Cut flow 1 : No cut (evt = 24000)

Cut flow 2 : electron number is 2

Cut flow 3 : same sign

The conventional way was 1/3 the efficiency in the point of selection of 2 electrons and 0 photon, so it is improved.

Future tasks

- Applying background samples (ongoing)
  first steps: 4 fermion single W semileptonic samples

- Add impact parameter cuts

Impact parameter for best isolated electron

M_{RHN} = 100 GeV
eRpL