### 28th September 2016

## Mw from ee $\rightarrow$ e $\nu$ W

ILD: Higgs and EM working group K. Kotera,

#### $\sqrt{s} = 500$ GeV eLpR w/ kT algorithm my analysis ~2×H20 4000 360k events 3000 5 6 6 From Koya's thesis Entries/0.5GeV 2000 2000 2000 168k events Entries/0. 1000 · durham √s=500GeV R = 0.7R = 1.0R = 1.2R = 1.590 60 100 δÛ Hadronic W Mass (GeV) 1000

Koya's W\_mass using DBD data in KEK was completely reproduced.

#### Next;

60

80

90

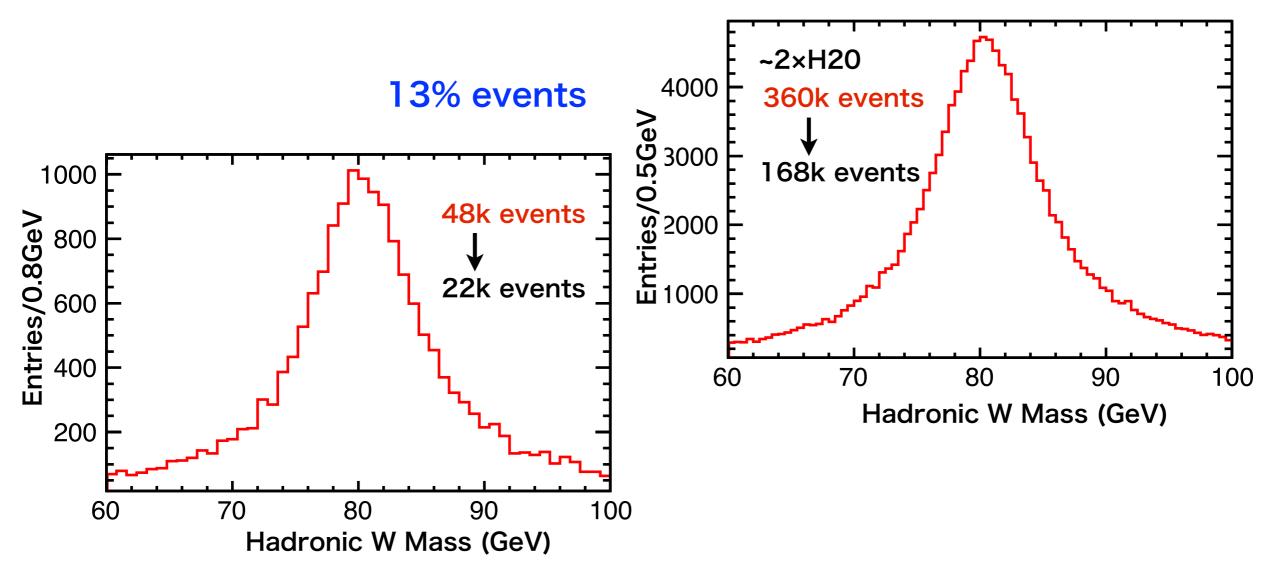
Hadronic W Mass [GeV]

100

70

need simulation data with the latest reconstruction procedure in v01-17-10.

# $\sqrt{s} = 500 \text{GeV eLpR}$ w/kT algorithm



To check difference between DBD and latest reconstruction.

need: ~50k events of sw\_sl\_500\_eLpR data

DST contents: default + GammaGammaCandidatePi0s, dEdx, shower shape ...

## Others

This morning I received fruitful suggestions from Graham.

#### Example:

Mw reconstruction

composition of  $\_$ 

W→ u dbar

W→ u sbar

W→ c dbar

W→ c dbar no nutrino

W→ c sbar

W→ c sbar no nutrino

Jet energy scale (calib)

composition of –

Z→ u ubar

Z→ s sbar

Z→ c cbar

Z→ b bbar

difference can make systematics investigate by separating categories using MC info.

difference of the distribution of: polar angle of W

polar angle of Z