Status report 2021.7.30

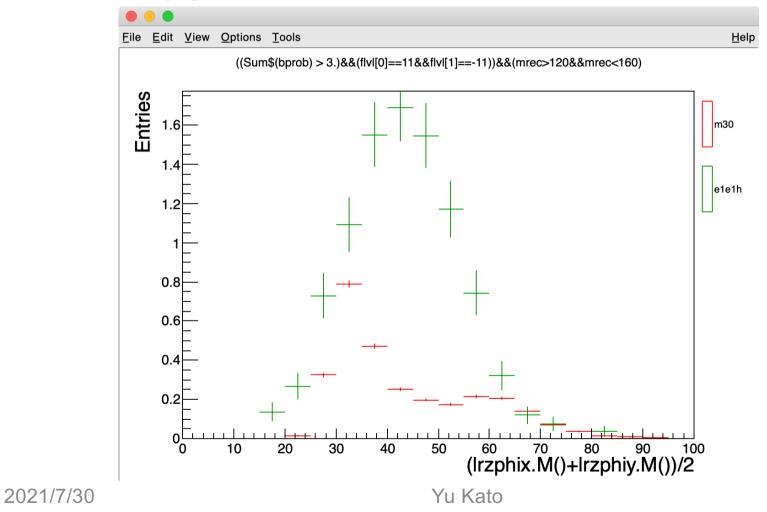
- Higgs exotic decay
 - $\mu\mu$ H, H $\rightarrow\phi\phi\rightarrow$ 4b
 - I will report current result on next ILD S&A meeting.
 - · Need to consider how to evaluate the limit
 - eeH, $H \rightarrow \phi \phi \rightarrow 4b$
 - Very preliminary result is obtained.
 - $\mu\mu$ H, H $\rightarrow\phi\phi\rightarrow$ (bb)+invisible
 - Self production is being tried.

```
process mumuh = "e-", "e+" => "mu+", "mu-", h0
        { $restrictions = "1+2~Z && 3+4~Z" $omega_flags = "-model:constant_width" }
process hdec = h0 => b, "b~", "H0" { $restrictions = "2+3~H0" }
process H0dec = H0 => vm, "vm~", vt, "vt~" { $restrictions = "2+3~Z && 4+5~Z" }
```

- Consideration of studies for our kinematic fitter
 - Main target: b-jet process
 - Candidate
 - BR(H→bb(/cc/gg)): Is it possible to reproduce previous study with mc-2020, especially template fit?
 - Single Top at 250 GeV: Are there available samples of this process? FCNC, t->qZ
 - Also any suggestions, recommendations and opinions are welcome.

2021/7/30

eeH, $H \rightarrow \phi \phi \rightarrow 4b$



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