

Dark matter search in higgs portal scenario

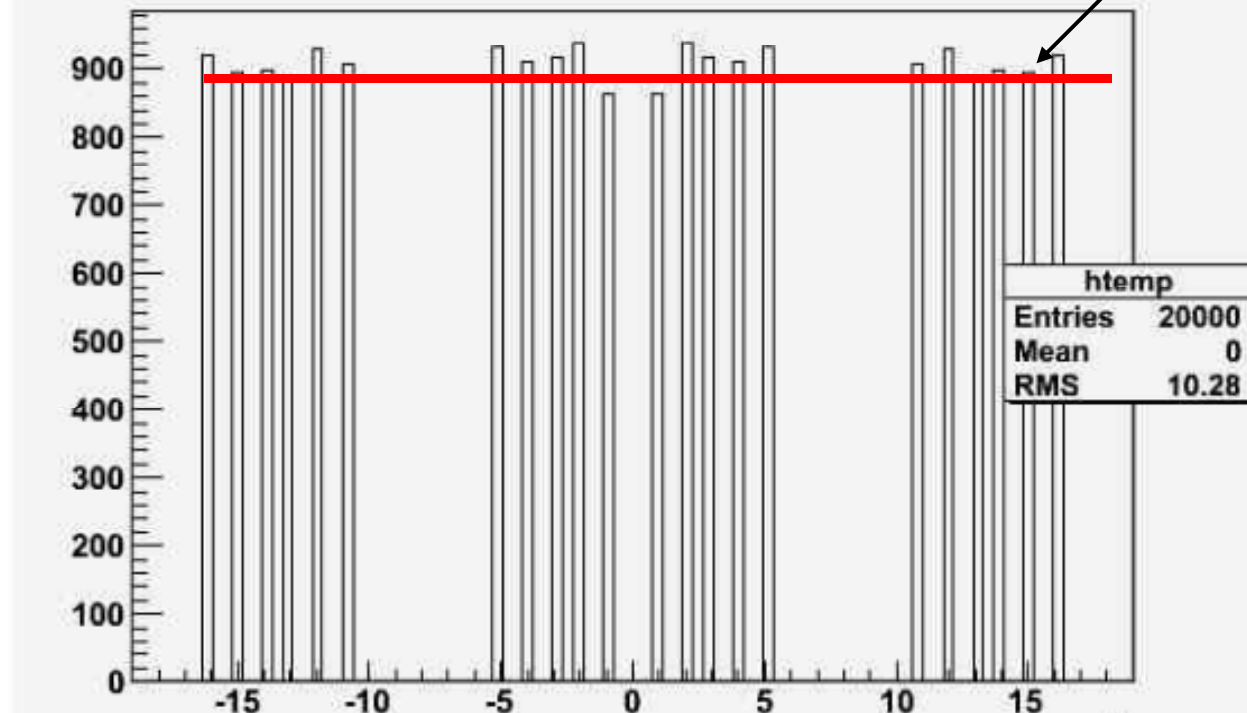
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Takahiro Honda (Tohoku)

status

- A bag was found
 - At the Signal event, the decay rate of Z boson was flat!
Probably there is a bag in the generator-code.

The number of daughter of Z boson



Particle ID-number

Z boson decay rate

Ecm : 500 GeV

Dark-matter mass : 70GeV

cross-section : current : 10.27[fb] (Z to all)

previous : 1.87[fb](Z to all)

Fix the daughter of Z (the number is defined at jsf.conf)	Cross section [fb] (current : weight *= knf)	Cross section [fb] (previous : weight =knf)
1 (electron neutrino)	0.062	0.124
2 (muon neutrino)	0.062	0.124
3 (tau neutrino)	0.062	0.124
4 (e)	0.031	0.062
5 (muon)	0.031	0.062
6 (tau)	0.031	0.062
7 (u)	0.112	0.223
8 (c)	0.111	0.223
9 (d)	0.144	0.288
10 (s)	0.144	0.288
11 (b)	0.141	0.283
Total	0.838 << 10.27	1.87

Summary & plan

Summary

- The bag may be in the generator-code (ZDDSpring.cxx). But I could not find where is wrong.