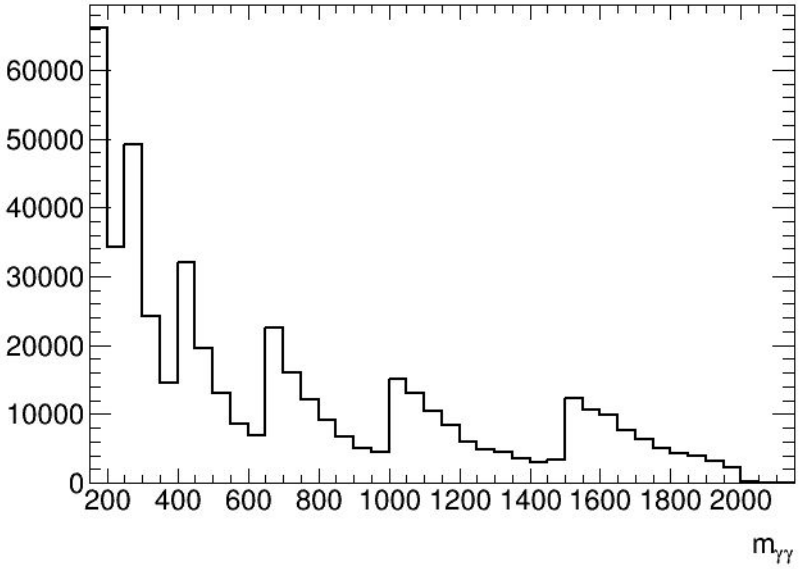
status

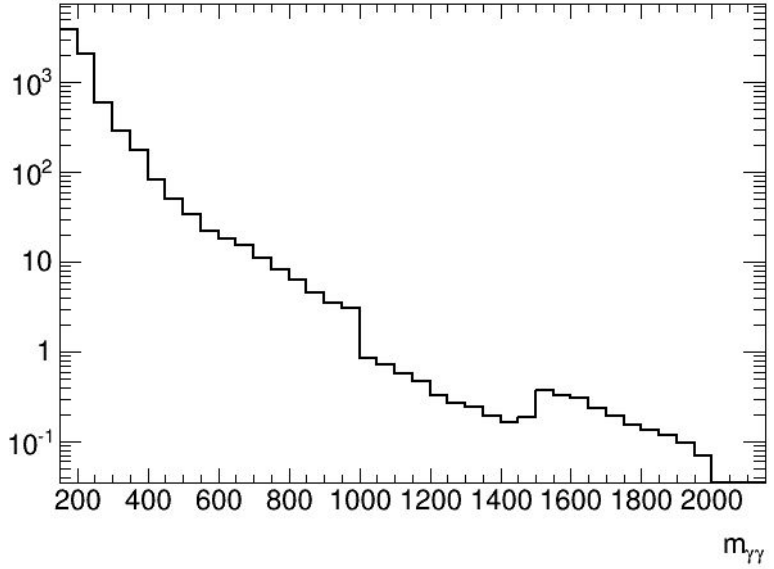
Yu Zhang

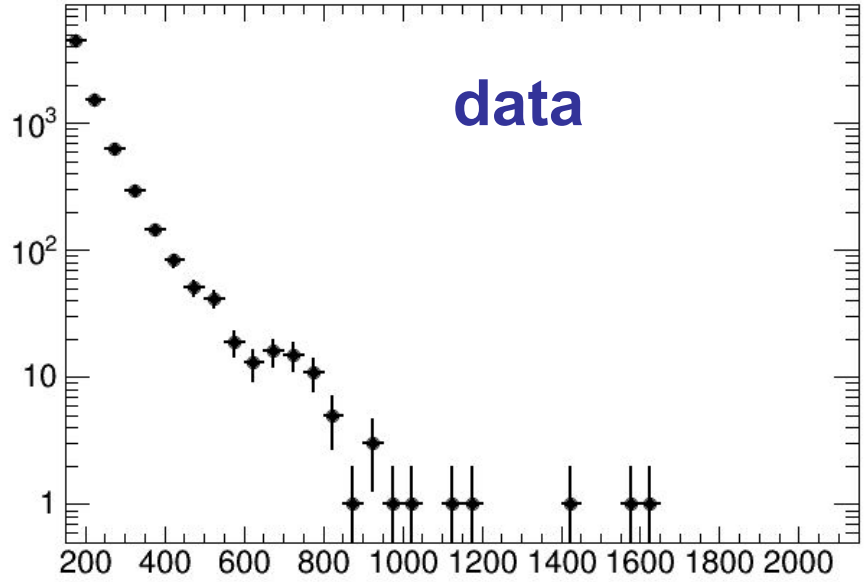
03.07

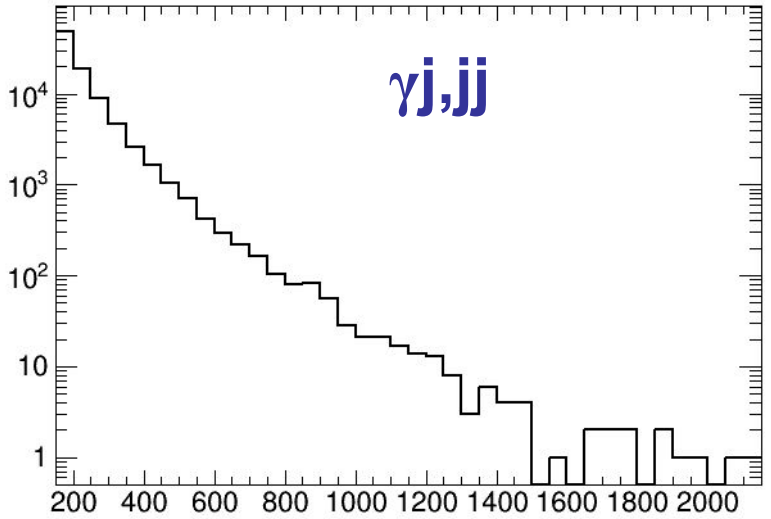
samples

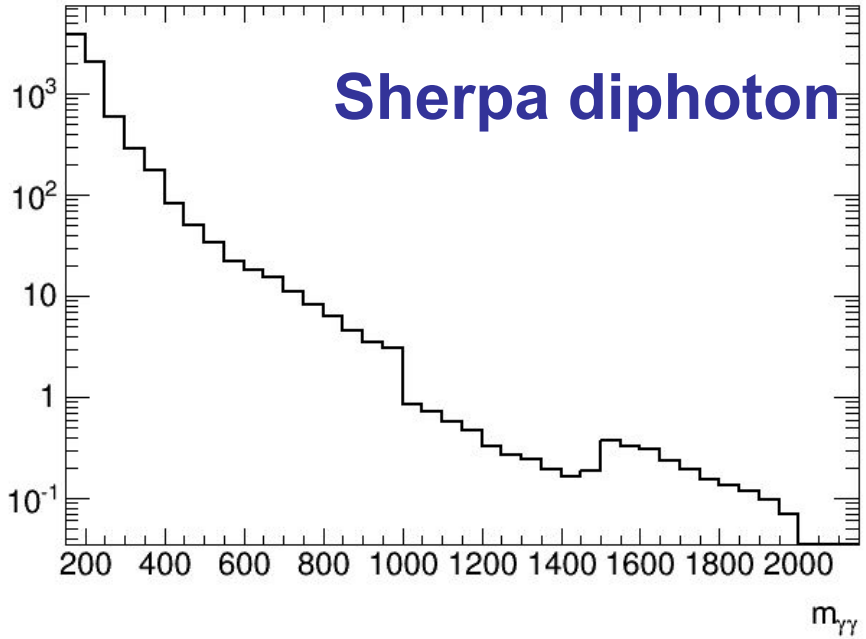
- Sherpa_gamgam_2DP20_160-250.MxAOD.p2419.h010.root
- Sherpa_gamgam_2DP20_250-400.MxAOD.p2419.h010.root
- Sherpa_gamgam_2DP20_400-650.MxAOD.p2419.h010.root
- Sherpa_gamgam_2DP20_650-1000.MxAOD.p2419.h010.root
- Sherpa_gamgam_2DP20_1000-1500.MxAOD.p2419.h010.root
- Sherpa_gamgam_2DP20_1500-2000.MxAOD.p2419.h010.root

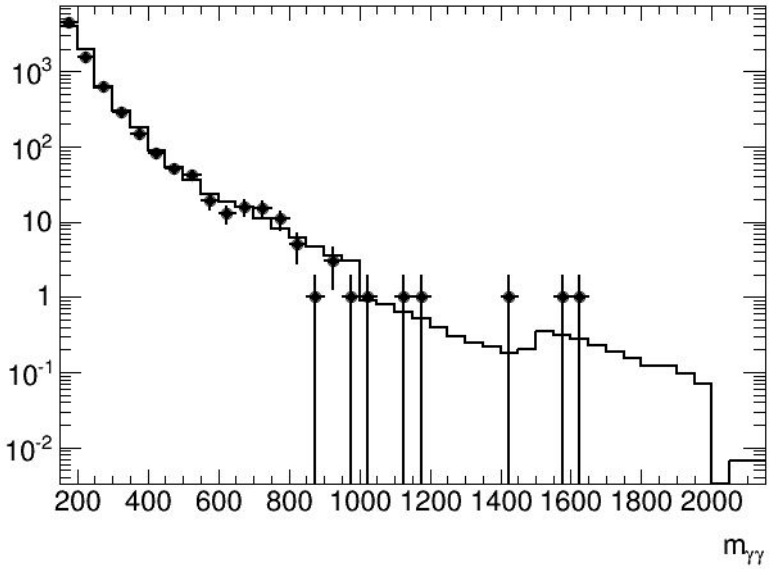





data
10^3
10^2
10
1
200 400 600 800 1000 1200 1400 1600 1800 2000


γj,jj
10^4
10^3
10^2
10
1
200 400 600 800 1000 1200 1400 1600 1800 2000


Sherpa diphoton
10^3
10^2
10
1
10^{-1}
200 400 600 800 1000 1200 1400 1600 1800 2000
$m_{\gamma\gamma}$


10^3
10^2
10
1
10^{-1}
10^{-2}
200 400 600 800 1000 1200 1400 1600 1800 2000
$m_{\gamma\gamma}$

further check on VBF

- someone finds large difference in the percentage
  - run1 VBF 4.3*10^-3 for loose and 7*10^-4 for tight run2 VBF 1.4*10^-3
  - run1 VHhad 2*10^-3 run2 VHhad 2*10^-2
  - same variables and MVA configuration
  - BDT cut is more tight than run1
- If necessary,
  - check with 8TeV data and MC

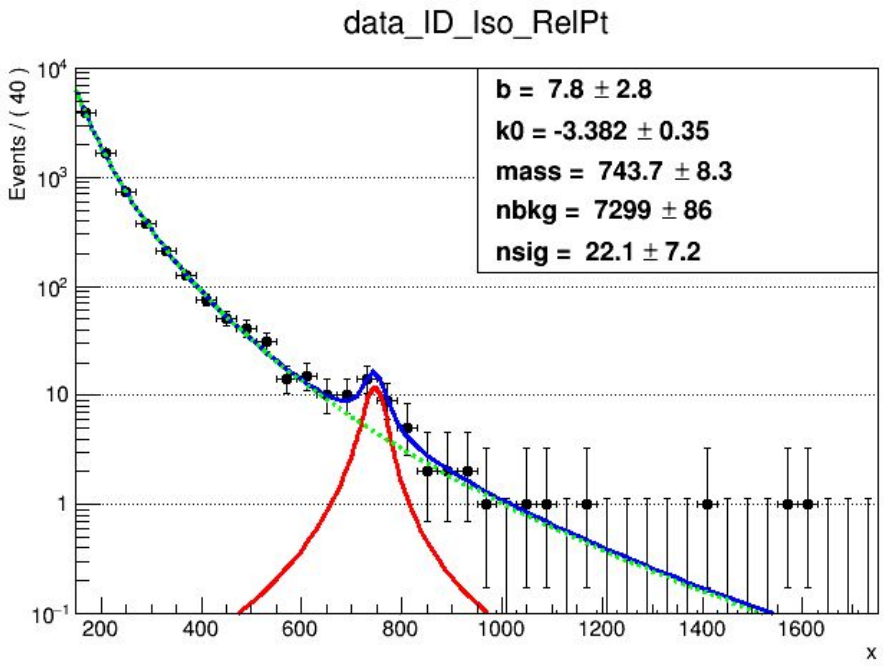
back up

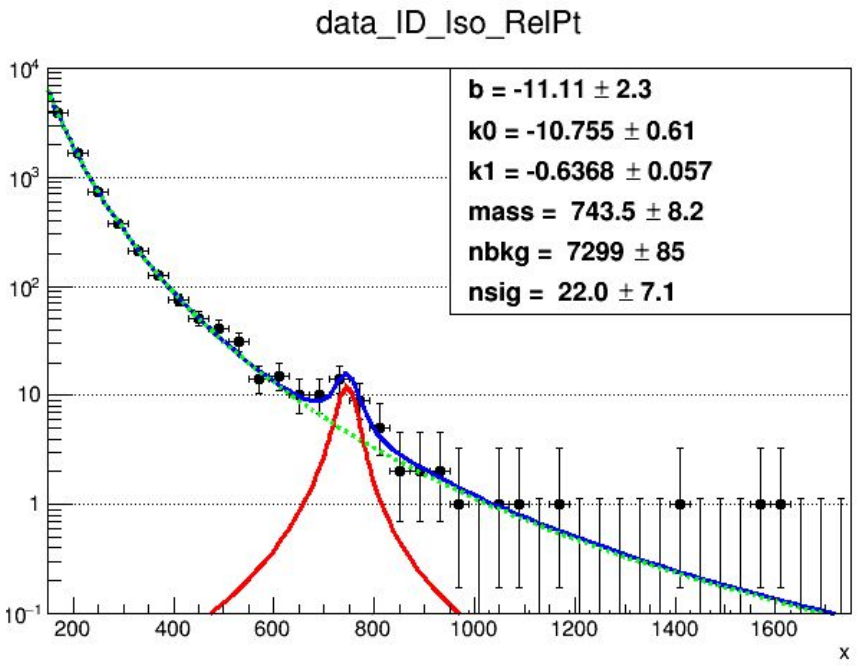
background modeling

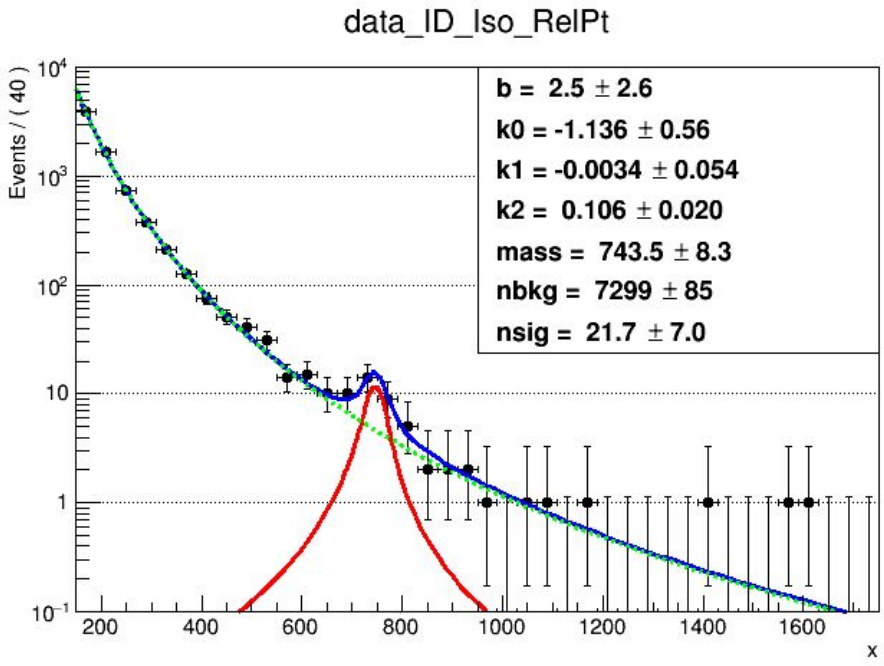
$$f_0(x) = (1 - x^d)^b \, x^{a_0}$$

$$f_1(x) = (1 - x^d)^b \, x^{a_0 + a_1 \log(x)}$$

$$f_2(x) = (1 - x^d)^b \, x^{a_0 + a_1 \log(x) + a_2 \log(x)^2}$$







	signal	bkg	sigma
1	19.29	24.63	3.50
2	19.20	24.49	3.49
3	19.00	24.77	3.44