

# Updates on H->WW

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2018.05.10

$$75 \text{ GeV}/c^2 < M_{Mis} < 150 \text{ GeV}/c^2$$

$$100 \text{ GeV}/c^2 < M_{Tot} < 150 \text{ GeV}/c^2$$

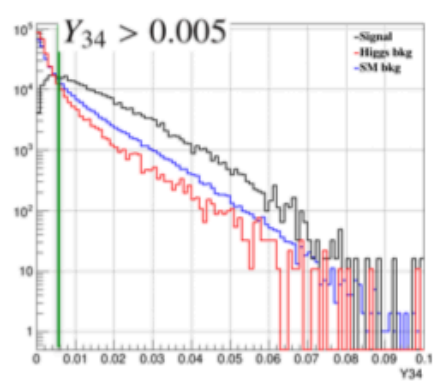
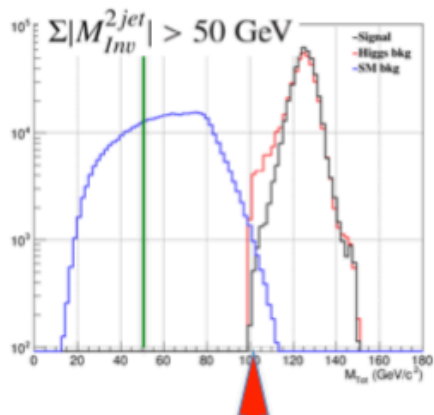
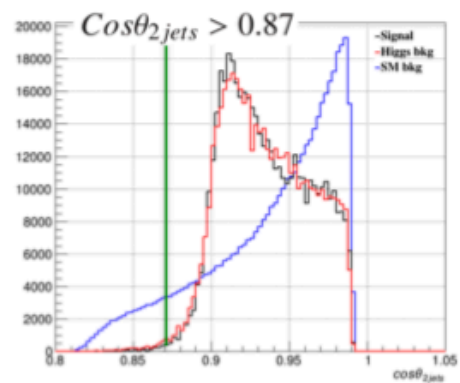
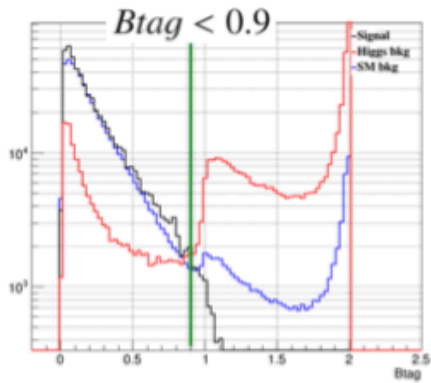
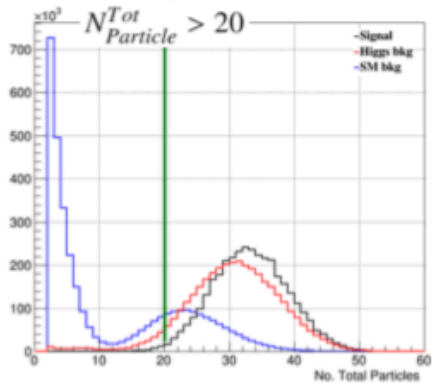
$$20 \text{ GeV}/c < p_T < 80 \text{ GeV}/c$$

Category	Signal	ZH background	SM background
Total	23938	208200	21314314
Validation of pre-selection	20405	143765	3166923
$N_{Particle}^{Tot} > 20$	19681	124112	537839
$B_{tag} < 0.9$	19349	28857	477099
$\text{Cos}\theta_{2jets} > 0.87$	19298	28673	433563
$\Sigma M_{Inv}^{2jet}  > 50 \text{ GeV}$	18621	14793	309919
$Y_{34} > 0.005$	15183	6919	122866
Combined Variable	9022	3075	38226

- $65 \text{ GeV}/c^2 < M_{Inv}^{Real4jet} < 85 \text{ GeV}/c^2$ ,
- $15 \text{ GeV}/c^2 < M_{Inv}^{Virt4jet} < 50 \text{ GeV}/c^2$ ,
- $M_{Inv}^{Virt4jet} > -7/3 M_{Inv}^{Real4jet} + \frac{605}{3} \text{ GeV}/c^2$ ,

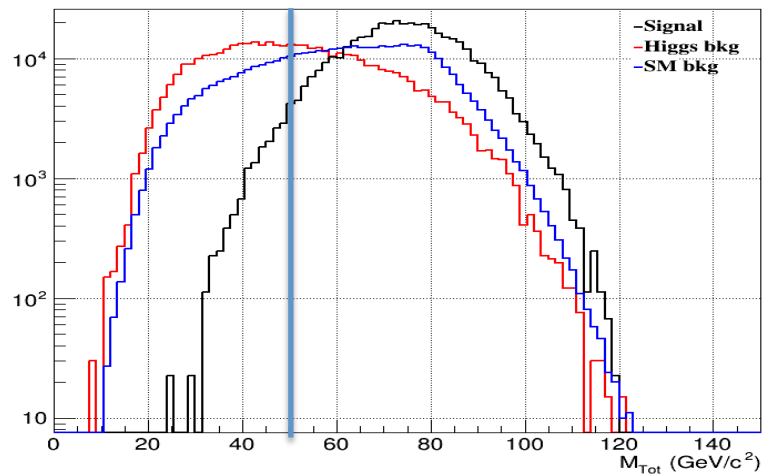
Note					
Signal	efficiency	Higgs bkg	efficiency	SM bkg	efficiency
Total	23938	208200		21314314	
Validation of pre-selection	20405	143765	0.691	3166923	0.149
$N_{Particle}^{Tot} > 20$	19681	124112	0.863	537839	0.170
$Btag < 0.9$	19349	28857	0.233	477099	0.887
$Cos\theta_{2jets} > 0.87$	19289	28673	0.994	433563	0.909
$\Sigma M_{Inv}^{2jet}  > 50 \text{ GeV}$	18621	14793	0.516	309919	0.715
$Y_{34} > 0.005$	15183	6919	0.468	122866	0.396
Combined Variable	9022	3075	0.444	38226	0.311

My 3.5T					
Signal	efficiency	Higgs bkg	efficiency	SM bkg	efficiency
Total	24889	222278		22687012	
Validation of pre-selection	20454	144169	0.649	3528746	0.156
$N_{Particle}^{Tot} > 20$	19729	124341	0.862	537839	0.152
$Btag < 0.9$	19390	28954	0.233	477099	0.887
$Cos\theta_{2jets} > 0.87$	19336	28761	0.993	433563	0.909
$\Sigma M_{Inv}^{2jet}  > 50 \text{ GeV}$	19336	28761	1.000	309919	0.715
$Y_{34} > 0.005$	15399	7344	0.255	122866	0.396
Combined Variable	9151	4025	0.548	38226	0.311

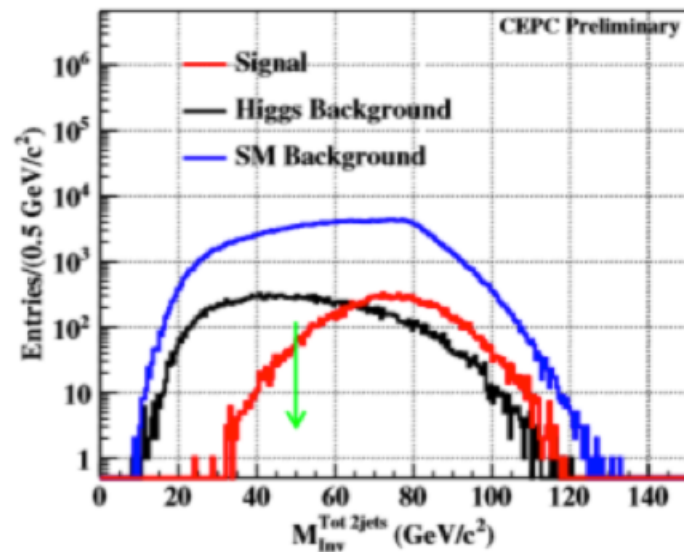


<https://indico.ihep.ac.cn/event/7971/contribution/2/material/slides/0.pdf>

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From Note:



# backup