1. Addition of following background processes is suggested:

1) e+e- ->Z(qq) H, H->WW-> 4 jets

2) e+e- ->Z(vv) H, H->WW-> 2jets lv

✓ 3) e+e- -> Z(qq) H(qq)

✓ 4) e+e- -> Z(vv) H(qq)

Process	Integrated luminosity, ab^{-1}		Cross section, fb		Number of events	
			Signal samples			
	eLpR	eRpL	eLpR	eRpL	eLpR	eRpL
$q\bar{q}H(ZZ)$	55.6	86.9	8.99	5.75	$5{\cdot}10^5$	$5{\cdot}10^5$
$\nu_e\bar{\nu}_e H(ZZ)$	316	889	1.58	0.56	$5{\cdot}10^5$	$5{\cdot}10^5$
$\nu_{\mu\tau}\bar{\nu}_{\mu\tau}H(ZZ)$	284	445	1.76	1.12	$5{\cdot}10^5$	$5{\cdot}10^5$
			Background samples			
	eLpR	eRpL	eLpR	eRpL	eLpR	eRpL
$WW/ZZ\,(4j)$	5.00	5.32	$12.4{\cdot}10^3$	225	$62{\cdot}10^6$	$12{\cdot}10^5$
$W(2j)W(\ell\nu)$	5.00	5.77	$10.3{\cdot}10^3$	86.7	$51.4{\cdot}10^6$	$5{\cdot}10^5$
$Z(2j)Z(2\ell)$	5.06	5.00	1423	1219	$72{\cdot}10^5$	$61{\cdot}10^5$
$Z(2\nu)Z(2j)+\gamma^\star(2\ell)$	5.08	5.35	610	262	$31{\cdot}10^5$	$14{\cdot}10^5$
$2j$	5.00	5.00	$128{\cdot}10^3$	$70.4{\cdot}10^3$	$6.40{\cdot}10^8$	$3.52{\cdot}10^8$
$WW/ZZ+\gamma^\star(2\ell)$	5.82		3.44		$2{\cdot}10^4$	
$e^+e^-H(jj)$	28.3	44.9	17.7	11.1	$5{\cdot}10^5$	$5{\cdot}10^5$
$\mu^+\mu^-H(jj)$	29.4	46.0	17.0	10.9	$5{\cdot}10^5$	$5{\cdot}10^5$
$\tau^+\tau^-H(jj)$	29.5	46.1	16.9	10.8	$5{\cdot}10^5$	$5{\cdot}10^5$
$\nu_e\bar{\nu}_e H(all)$	2.3	8.3	60.4	21.5	$5{\cdot}10^5$	$5{\cdot}10^5$
$\nu_{\mu\tau}\bar{\nu}_{\mu\tau}H(all)$	7.5	11.6	67.1	42.9	$5{\cdot}10^5$	$5{\cdot}10^5$
$jjH(all)$	1.5	2.3	343.1	219.5	$5{\cdot}10^5$	$5{\cdot}10^5$

- Line 103, *The background samples are studied without preselections, however the most dangerous background processes are also preselected and studied separately.*' (In a real experiment, signal and background are present indistinguishably in collected data in a way that one actually can not preselect some events and not preselect the others.);

We use MC data and separate specific backgrounds to study it in more details.
In almost all papers, different background components are shown separately in histos.

- Lines 118-120, I've asked to comment on leptonic Z(Z*) reconstruction efficiencies;

The numbers are given in the text below. What should be commented to that?

The $Z^\star$ and Z reconstruction efficiencies in the
leptonic modes in the channel with four jets (two jets) are
$\sim$67 % ($\sim$72 %) and $\sim$90 % ($\sim$91 %), respectively. The

I disagree to call accidental (generated) sample size 'nominal integrated luminosity';

Ok, we will replace it to "generated samples integrated luminosities, Lgen". Is it ok?

- Eq. 7, As F. Zarnecki pointed out, and I support his suggestion, though Eq. 7 is not wrong per se, it is much more readable if 2 ab^{-1}/L_{nom} is written as $\sigma \cdot L_{nom}/N_{gen}$, where L_{nom}=2 ab^{-1} and the number of generated events (N_{gen}) is normalized;

We do not agree. Although the formulas $W = 2\ ab^{-1} / L_{nom}$ and $W = \sigma\ L_{int} / N_{gen}$ are equivalent, the first one is much more understandable for readers.

Fig. 3, It is suggested to give stat box with RMS, meaningful for the pull distribution as RMS gives statistical disspiation;

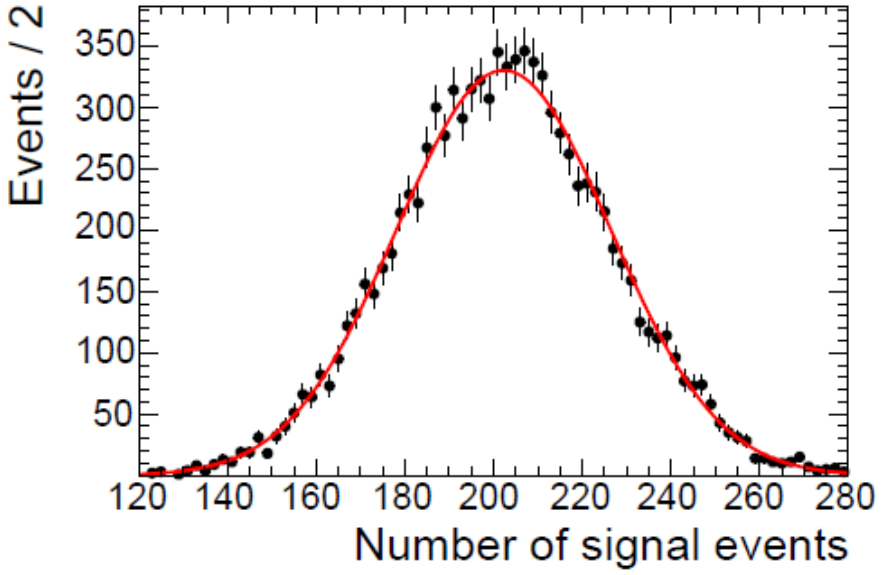
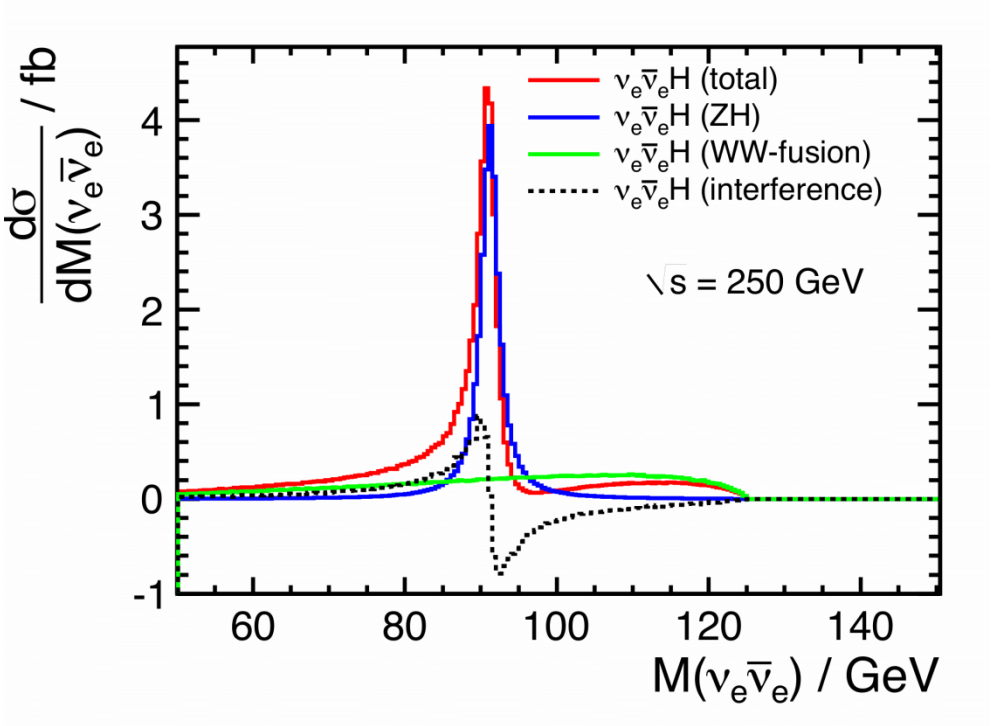


FIG. 3: The distribution of the number of the signal events obtained from the toy MC fits (dots with errors) is shown together with a fit by the Gaussian function (curve) as described in the text.

We quote Gaussian fit values. RMS has no direct interpretation and depends on range.

tained from the toy MC. The fit of this distribution to
the Gaussian function gives the mean value and width of
202.3 ± 0.3 and 24.2 ± 0.2 events, respectively. The toy

- Line 425, *'In the last two channels there is also a contribution from to the W-fusion process $e^+e^- \to \nu\nu H(ZZ)$. For the used cuts its fraction is about 15% of the measured signals. Similar to the previous correction, this fraction can be precisely evaluated therefore, does not result in a loss of accuracy.'* (I am not really convinced that this process can be easily taken as a correction in real experiment. In the analysis (or in a real experiment) these events will enter into distributions that is fitted, so their realistic impact can be estimated only (in my opinion) by simulating these events as background. Otherwise, one can correct for any background if its cross-section and selection efficiency are known).



The $Z(\nu\nu)H(ZZ)$ and W-fusion $\nu\nu H(ZZ)$ processes interfere. The last one cannot be treated as regular background to ZH process. But these processes can be calculated separately and corresponding correction can be obtained. It will result in a systematic uncertainty. Fortunately, the channels with neutrinos have limited impact on final combined result.