Analysis summary of Higgs anomalous coupling with $\mathrm{H} \rightarrow \mathrm{WW}^{*}$
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## $\Delta \chi^{2}$ distributions

3 probability regions were checked.

- Region to include both a and bt in $1 \sigma$ region
> probability: $0.68 \times 0.68=0.46$
- $1 \sigma$ probability region
> Probability: 0.68
- $2 \sigma$ probability region
> Probability: 0.95

Variables used for the contour plot:

- Angle of W decay planes
- W momenta at Higgs rest-frame
- Jet angle at W rest-frame



## Probability contour (a v.s. btilde)

The contour plot for a v.s. btilde was obtained.

- The SM coupling disappear at $\mathrm{a}=-4.1$.
$\rightarrow$ There are two allowed regions.



## Probability contour (a v.s. b)

The contour plot for a v.s. b was obtained.

- There are two allowed regions since the SM coupling disappear at $\mathrm{a}=-4.1$.




## Probability contour (b v.s. btilde)

The contour plot for $b$ v.s. btilde was made.

Since we obtained the final results, the journal paper will be prepared.


