

Two-dimensional plots - Summary group 3

February 21, 2022

List of Figures

1	m_{H^\pm} GeV vs. $\log_{10} \tan \beta$	3
2	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$	3
3	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$	4
4	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$	4
5	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \tan \beta$	5
6	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \tan \beta$	5
7	$\log_{10} \tan \beta$ vs. m_{H^\pm} GeV	6
8	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. m_{H^\pm} GeV	6
9	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. m_{H^\pm} GeV	7
10	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. m_{H^\pm} GeV	7
11	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. m_{H^\pm} GeV	8
12	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. m_{H^\pm} GeV	8
13	$\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	9
14	m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	9
15	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	10
16	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	10
17	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	11
18	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)	11
19	$\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	12
20	m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	12
21	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	13
22	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	13

23	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	14
24	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)	14
25	$\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	15
26	m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	15
27	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	16
28	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	16
29	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	17
30	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)	17
31	$\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	18
32	m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	18
33	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	19
34	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	19
35	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	20
36	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)	20
37	$\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	21
38	m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	21
39	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	22
40	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	22
41	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	23
42	$\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)	23

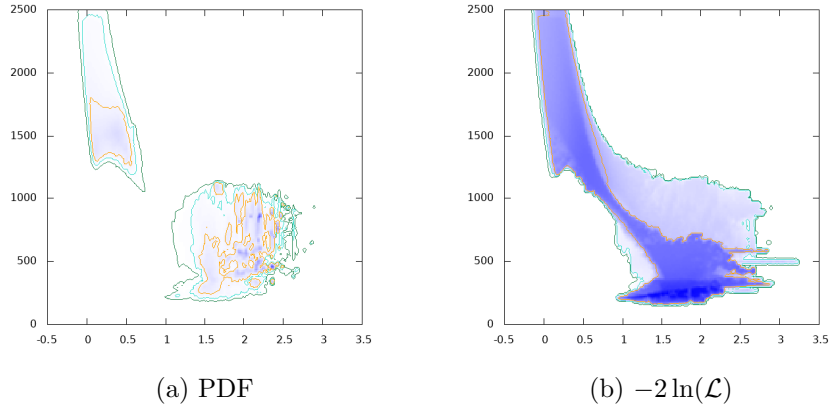


Figure 1: m_{H^\pm} GeV vs. $\log_{10} \tan \beta$

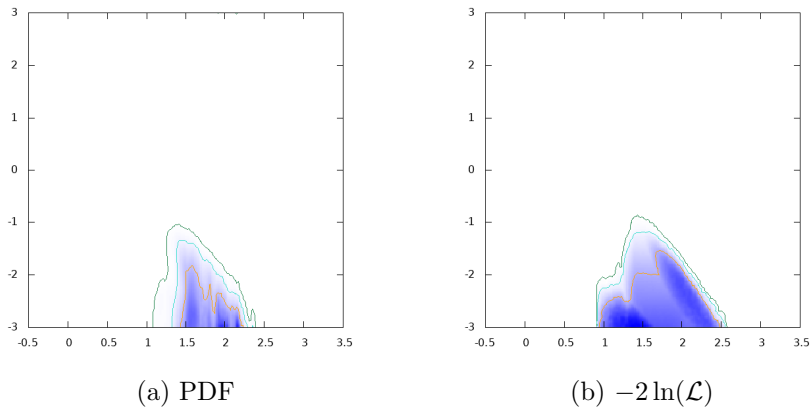


Figure 2: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$

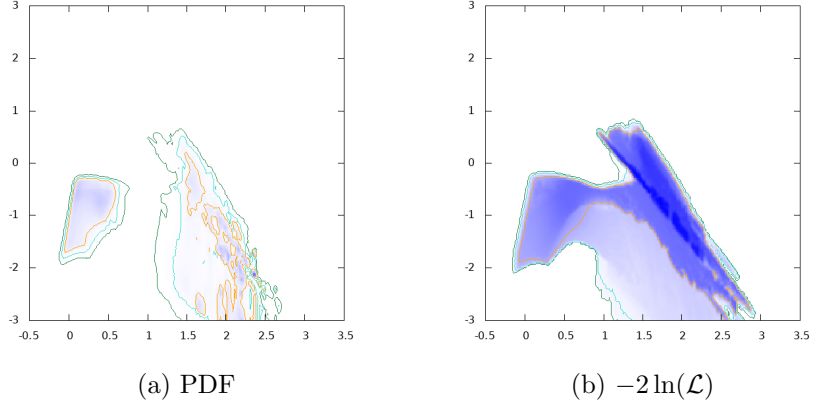


Figure 3: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$

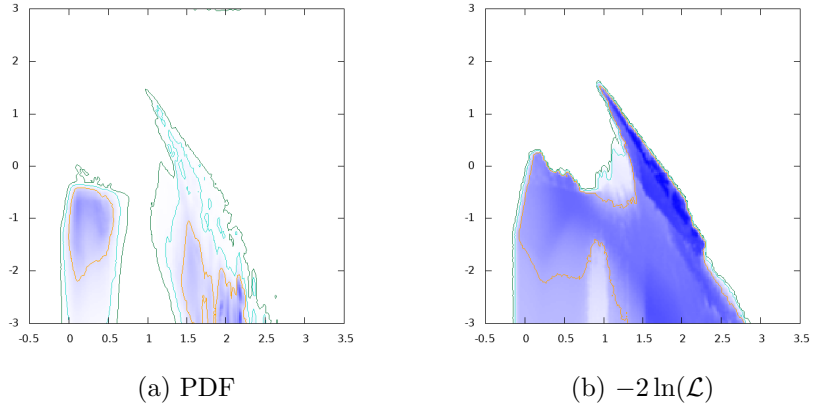


Figure 4: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \tan \beta$

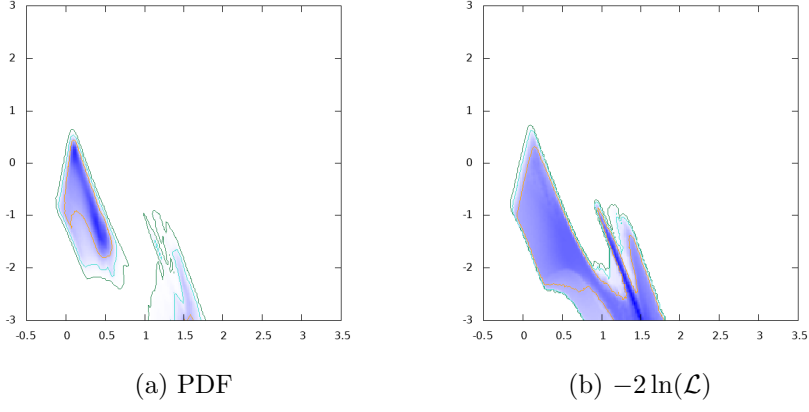


Figure 5: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \tan \beta$

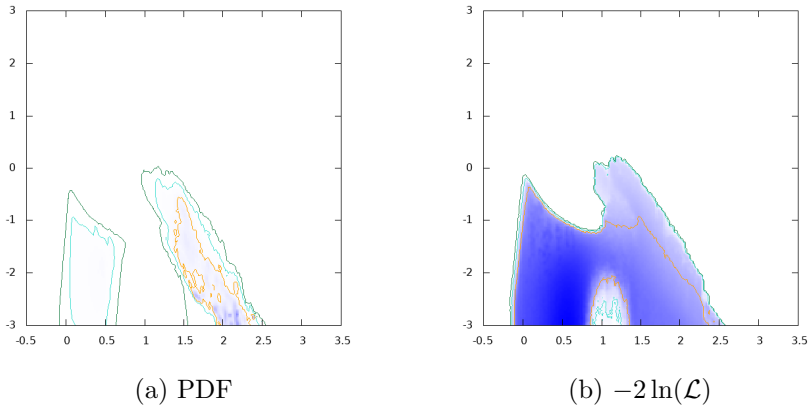


Figure 6: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \tan \beta$

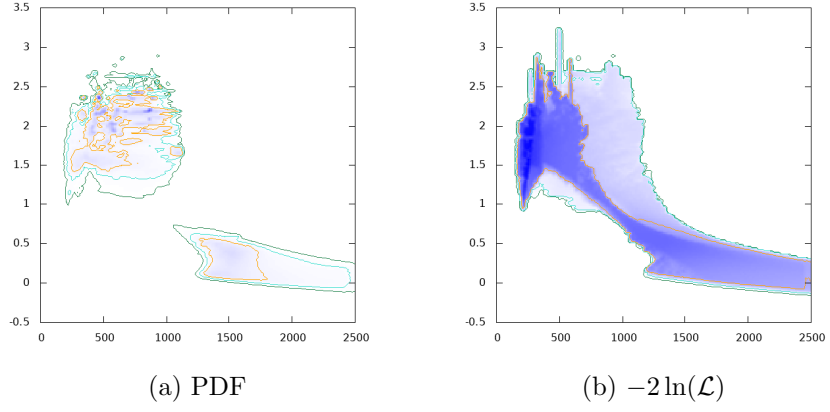


Figure 7: $\log_{10} \tan \beta$ vs. m_{H^\pm} GeV

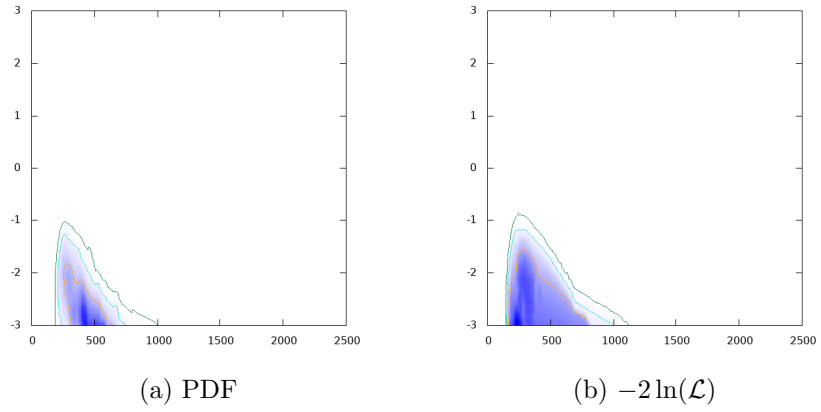


Figure 8: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. m_{H^\pm} GeV

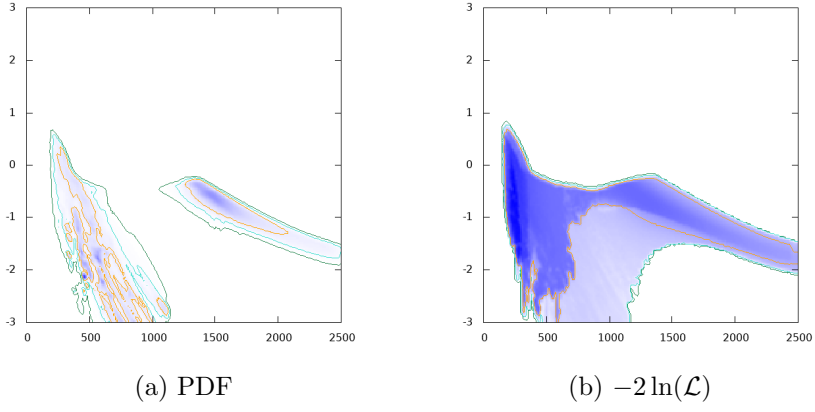


Figure 9: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. m_{H^\pm} GeV

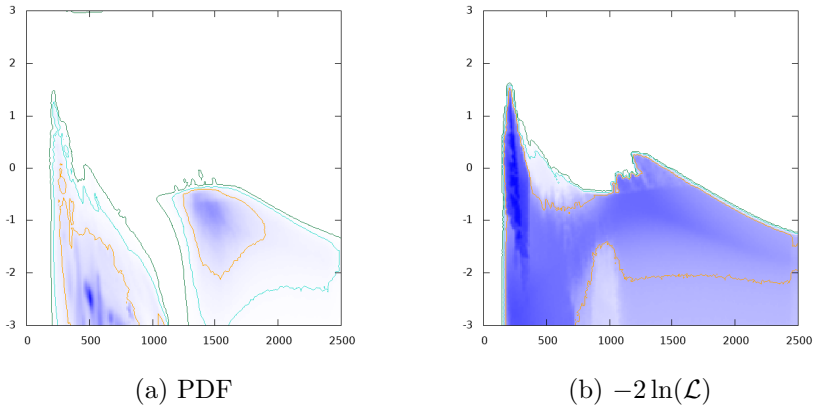


Figure 10: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. m_{H^\pm} GeV

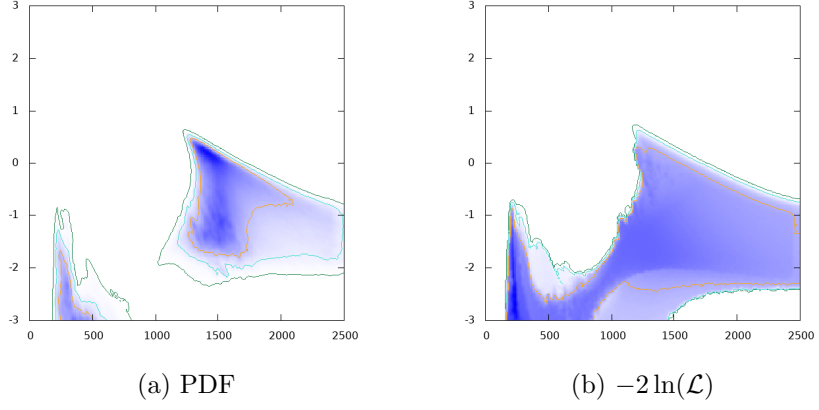


Figure 11: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. m_{H^\pm} GeV

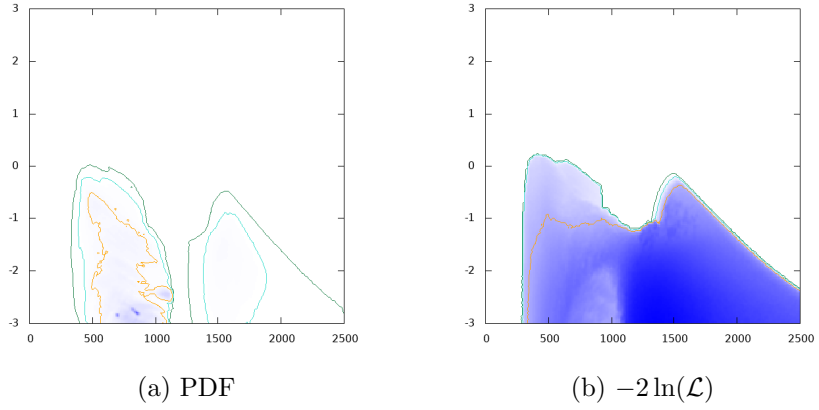


Figure 12: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. m_{H^\pm} GeV

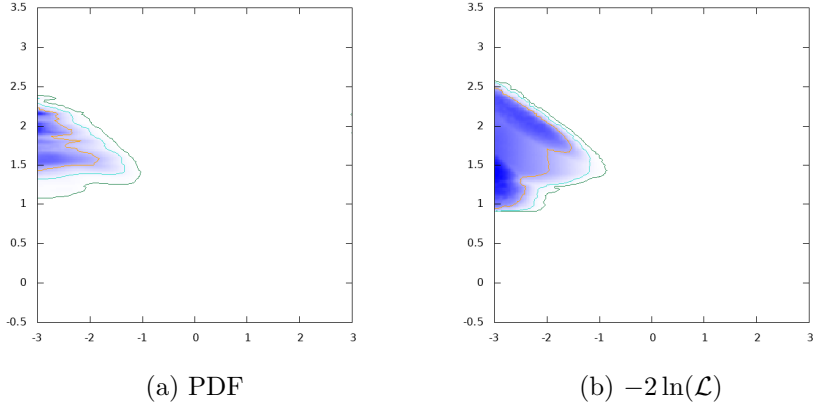


Figure 13: $\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)

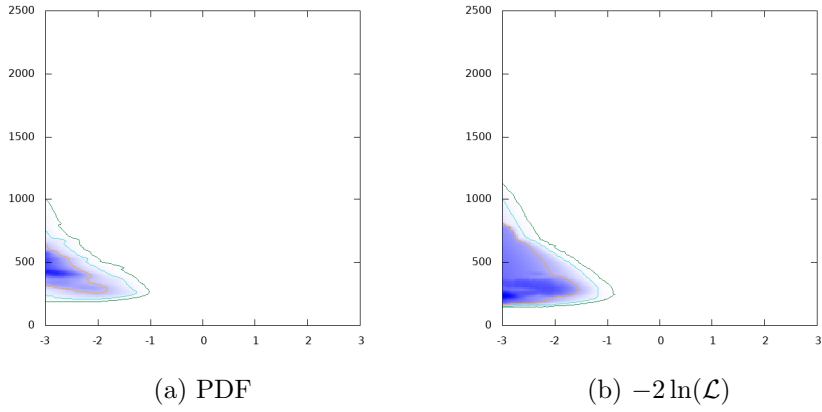


Figure 14: m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)

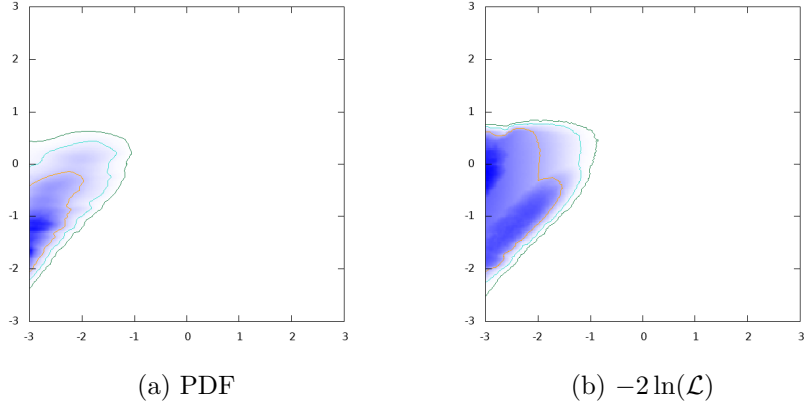


Figure 15: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)

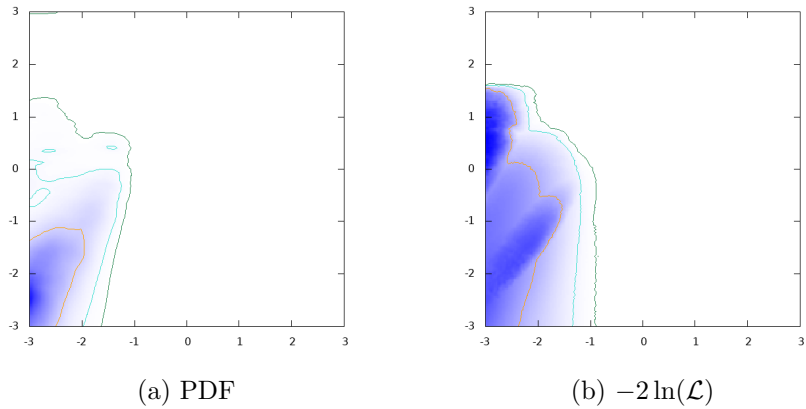
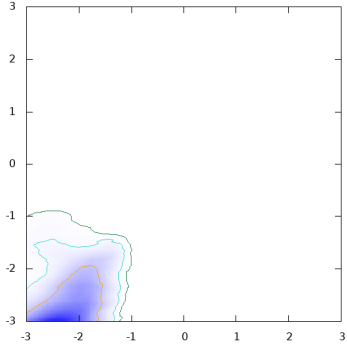
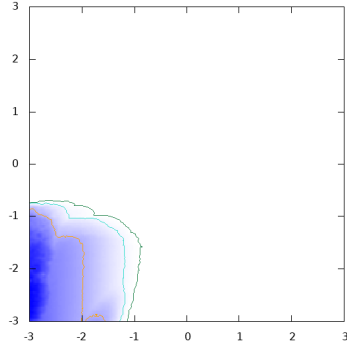


Figure 16: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)

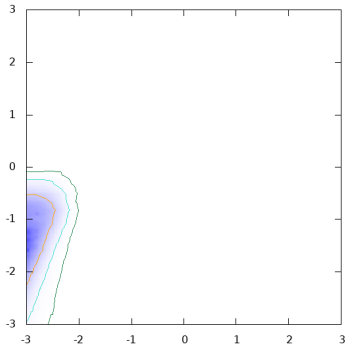


(a) PDF

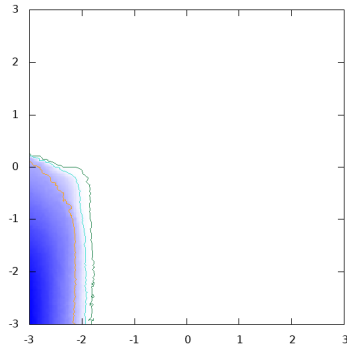


(b) $-2\ln(\mathcal{L})$

Figure 17: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)



(a) PDF



(b) $-2\ln(\mathcal{L})$

Figure 18: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb)

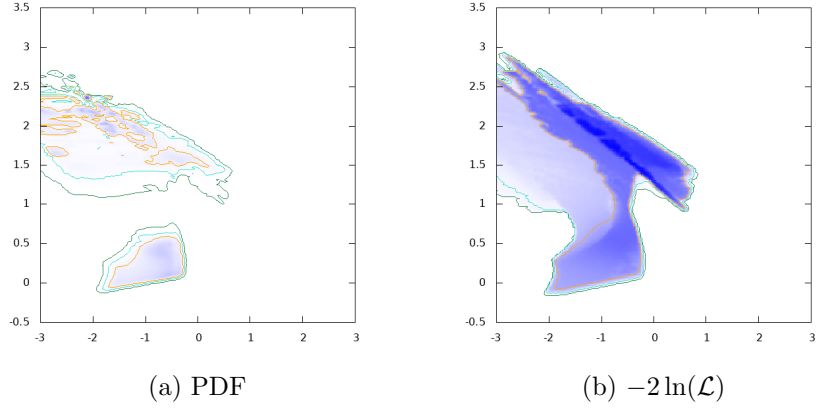


Figure 19: $\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)

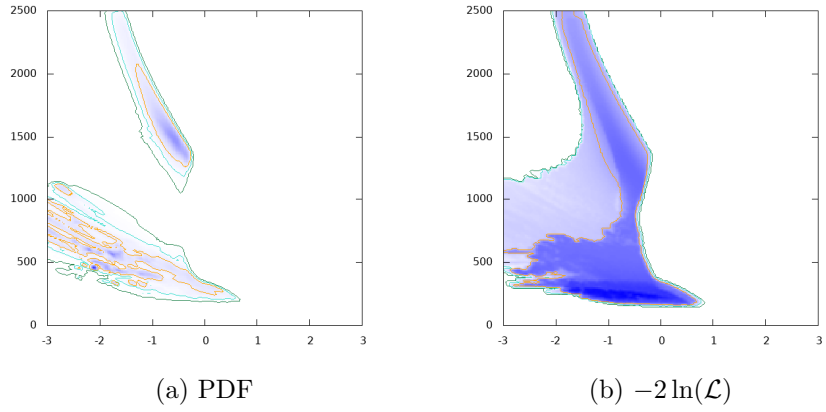
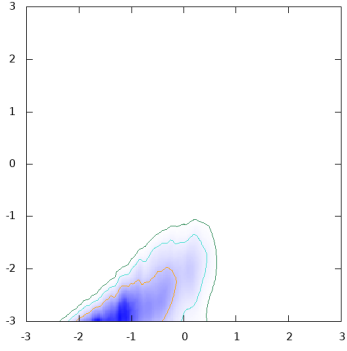
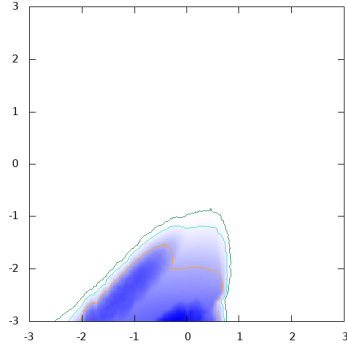


Figure 20: m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)

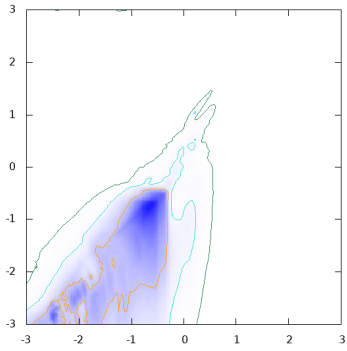


(a) PDF

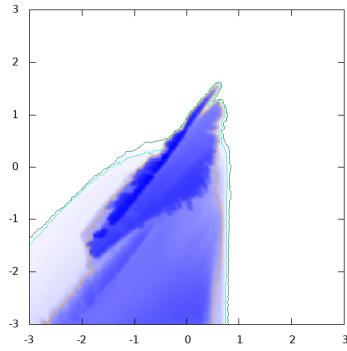


(b) $-2\ln(\mathcal{L})$

Figure 21: $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)



(a) PDF



(b) $-2\ln(\mathcal{L})$

Figure 22: $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)

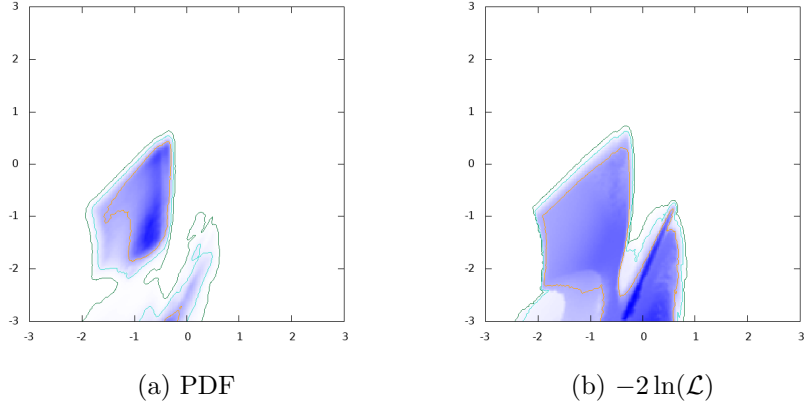


Figure 23: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)

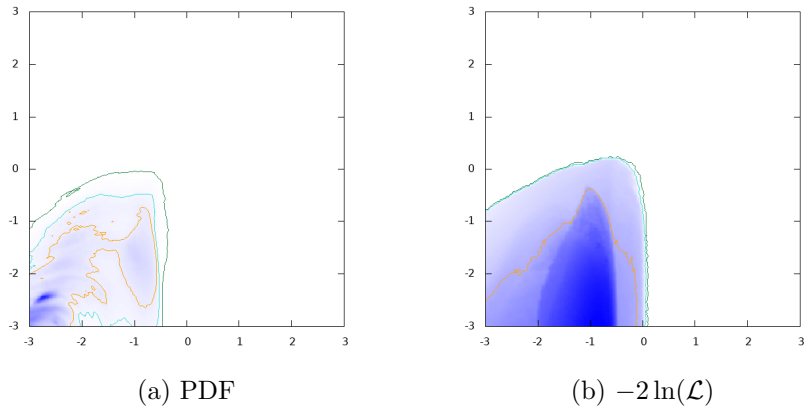


Figure 24: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb)

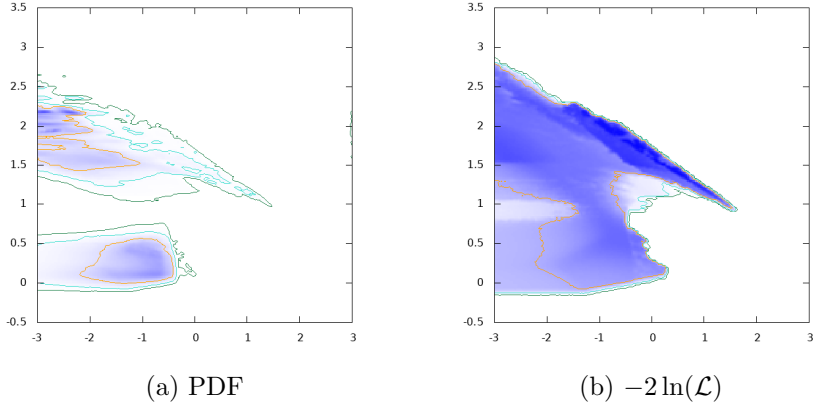


Figure 25: $\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)

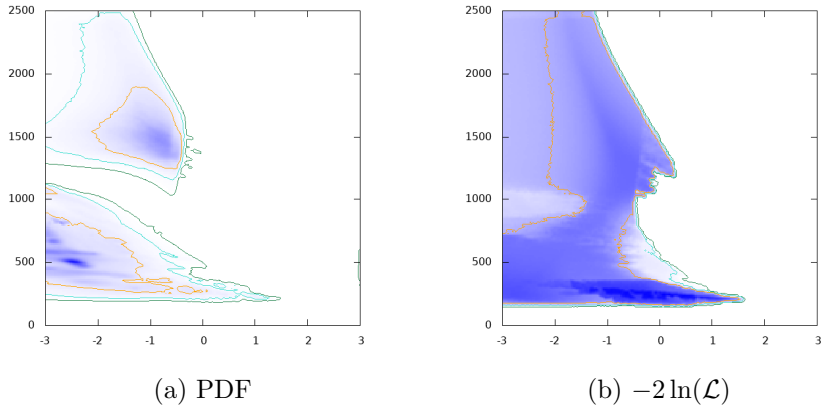


Figure 26: m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)

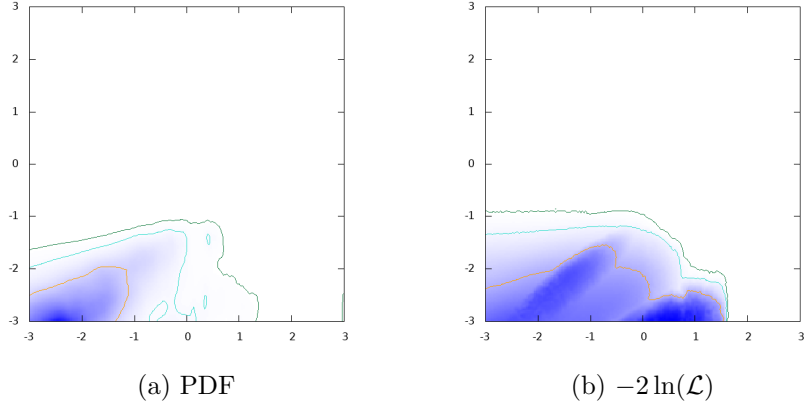


Figure 27: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)

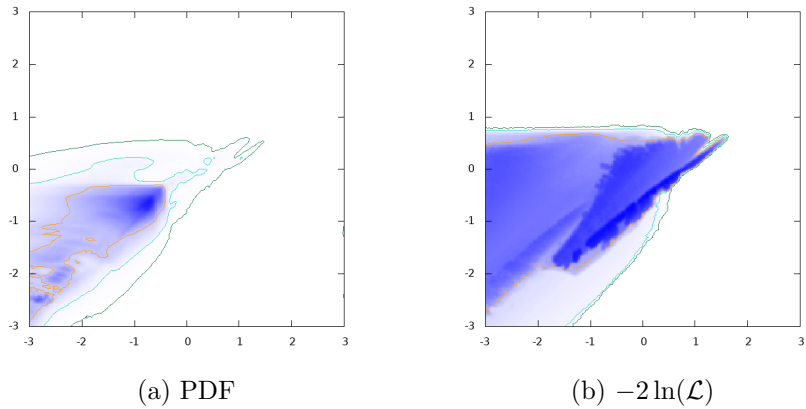
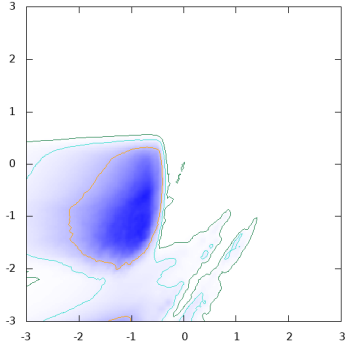
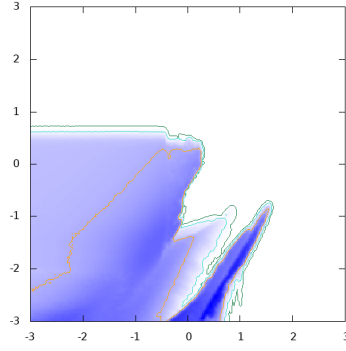


Figure 28: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)

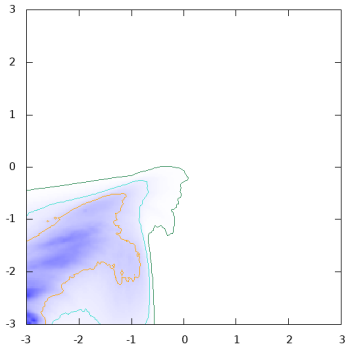


(a) PDF

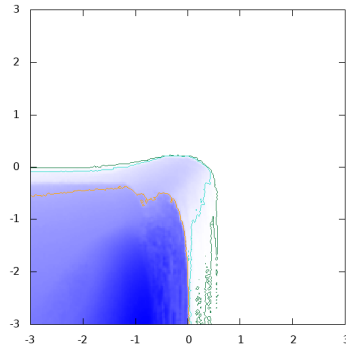


(b) $-2\ln(\mathcal{L})$

Figure 29: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)



(a) PDF



(b) $-2\ln(\mathcal{L})$

Figure 30: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb)

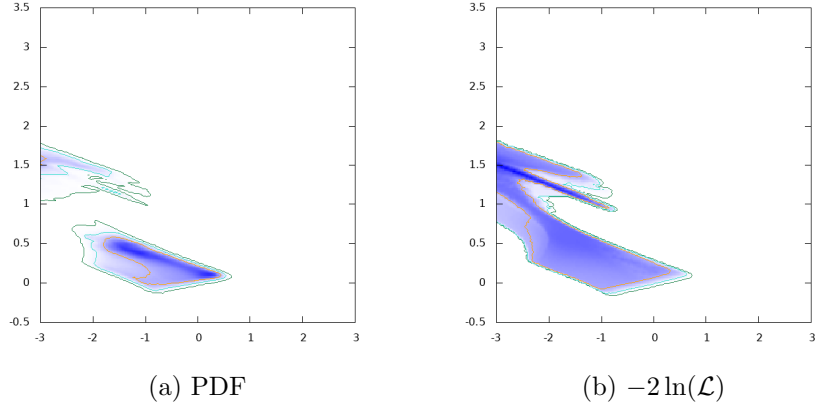


Figure 31: $\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)

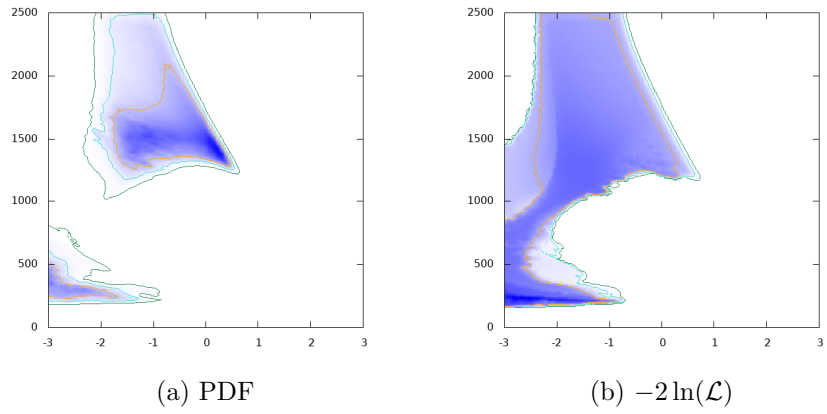
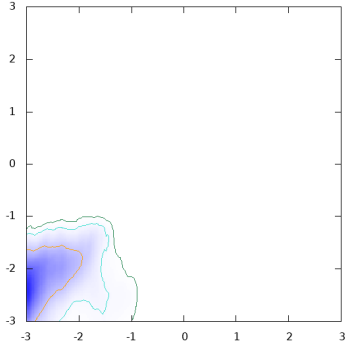
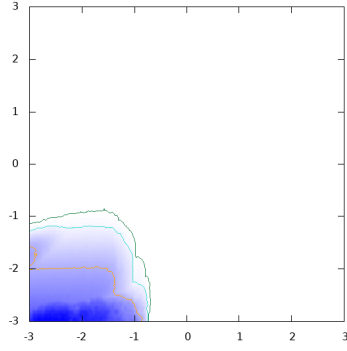


Figure 32: m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)

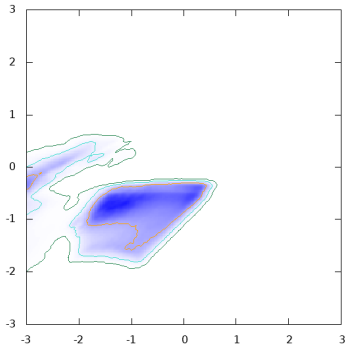


(a) PDF

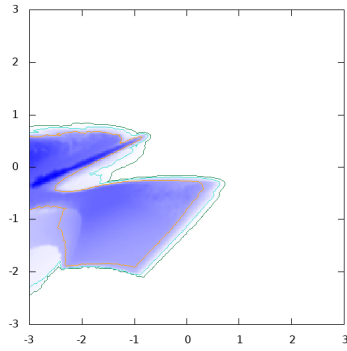


(b) $-2\ln(\mathcal{L})$

Figure 33: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)



(a) PDF



(b) $-2\ln(\mathcal{L})$

Figure 34: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)

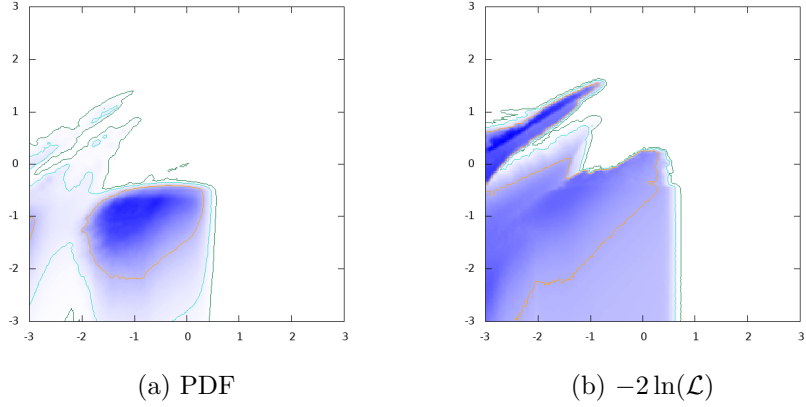


Figure 35: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)

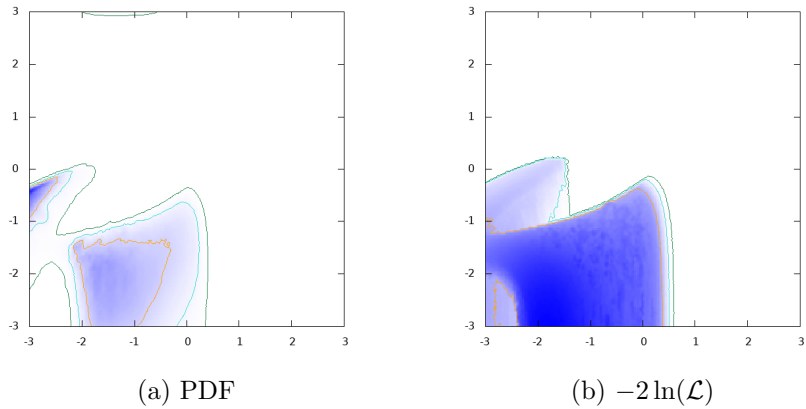


Figure 36: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb)

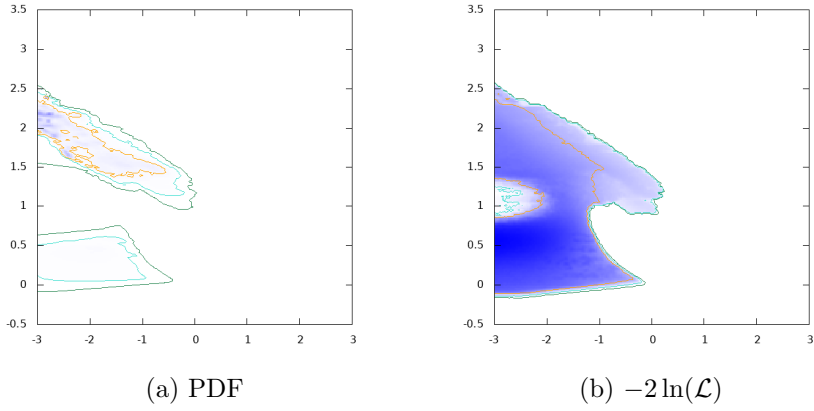


Figure 37: $\log_{10} \tan \beta$ vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)

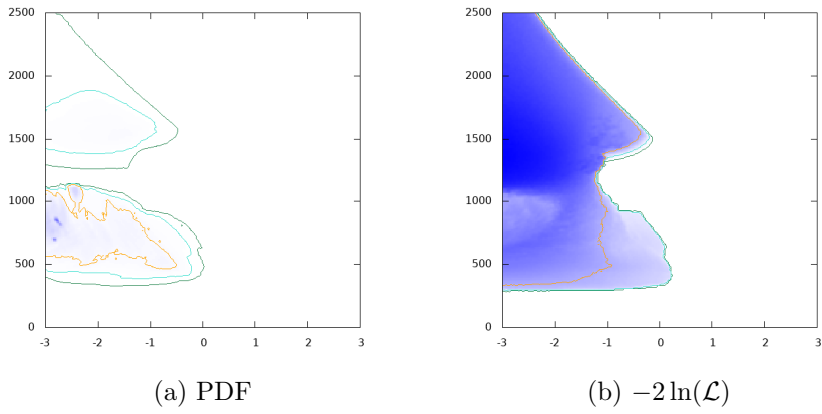


Figure 38: m_{H^\pm} GeV vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)

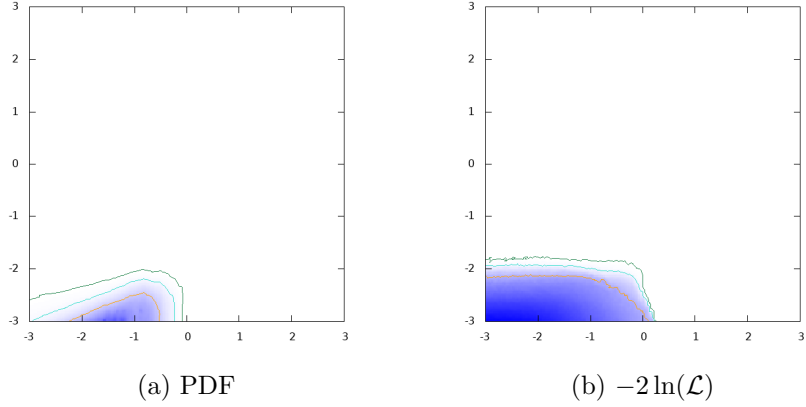


Figure 39: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow e^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)

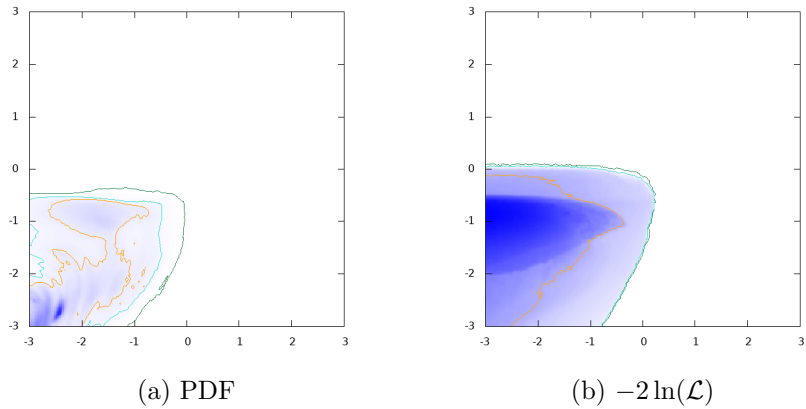
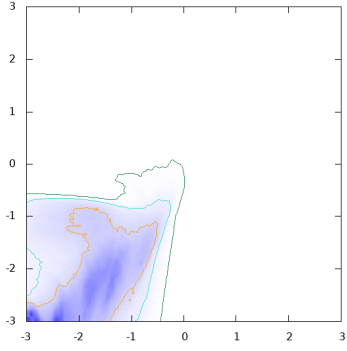
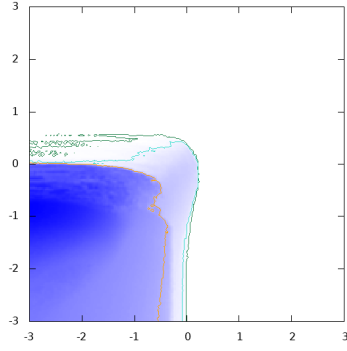


Figure 40: $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \mu^\pm \nu)$ (fb) vs. $\log_{10} \sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)

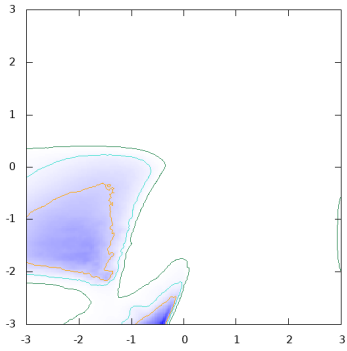


(a) PDF

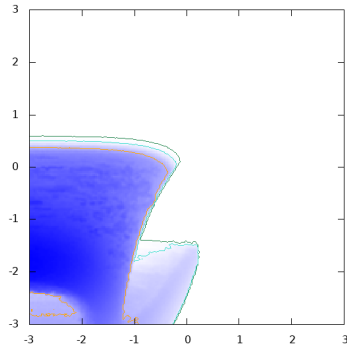


(b) $-2\ln(\mathcal{L})$

Figure 41: $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow \tau^\pm\nu)$ (fb) vs. $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)



(a) PDF



(b) $-2\ln(\mathcal{L})$

Figure 42: $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow tb)$ (fb) vs. $\log_{10}\sigma(pp \rightarrow H^\pm tb)(H^\pm \rightarrow HW^\pm)$ (fb)