

# Two-dimensional plots - Summary group 6

February 21, 2022

## List of Figures

1	$m_A$ GeV vs. $\log_{10} \tan \beta$ . . . . .	3
2	$\log_{10} \text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10} \tan \beta$ . . . . .	3
3	$\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10} \tan \beta$ . . . . .	4
4	$\log_{10} \text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10} \tan \beta$ . . . . .	4
5	$\log_{10} \text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10} \tan \beta$ . . . . .	5
6	$\log_{10} \text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10} \tan \beta$ . . . . .	5
7	$\log_{10} \text{BR}(A \rightarrow HZ)$ vs. $\log_{10} \tan \beta$ . . . . .	6
8	$\log_{10} \tan \beta$ vs. $m_A$ GeV . . . . .	7
9	$\log_{10} \text{BR}(A \rightarrow e^+e^-)$ vs. $m_A$ GeV . . . . .	7
10	$\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $m_A$ GeV . . . . .	8
11	$\log_{10} \text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $m_A$ GeV . . . . .	8
12	$\log_{10} \text{BR}(A \rightarrow \bar{t}t)$ vs. $m_A$ GeV . . . . .	9
13	$\log_{10} \text{BR}(A \rightarrow \bar{b}b)$ vs. $m_A$ GeV . . . . .	9
14	$\log_{10} \text{BR}(A \rightarrow HZ)$ vs. $m_A$ GeV . . . . .	10
15	$\log_{10} \tan \beta$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	11
16	$m_A$ GeV vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	11
17	$\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	12
18	$\log_{10} \text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	12
19	$\log_{10} \text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	13
20	$\log_{10} \text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	13
21	$\log_{10} \text{BR}(A \rightarrow HZ)$ vs. $\log_{10} \text{BR}(A \rightarrow e^+e^-)$ . . . . .	14
22	$\log_{10} \tan \beta$ vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	15
23	$m_A$ GeV vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	15
24	$\log_{10} \text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	16
25	$\log_{10} \text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	16
26	$\log_{10} \text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	17
27	$\log_{10} \text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10} \text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	17

28	$\log_{10}\text{BR}(A \rightarrow HZ)$ vs. $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$ . . . . .	18
29	$\log_{10}\tan\beta$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	19
30	$m_A$ GeV vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	19
31	$\log_{10}\text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	20
32	$\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	20
33	$\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	21
34	$\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	21
35	$\log_{10}\text{BR}(A \rightarrow HZ)$ vs. $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ . . . . .	22
36	$\log_{10}\tan\beta$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	23
37	$m_A$ GeV vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	23
38	$\log_{10}\text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	24
39	$\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	24
40	$\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	25
41	$\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	25
42	$\log_{10}\text{BR}(A \rightarrow HZ)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ . . . . .	26
43	$\log_{10}\tan\beta$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	27
44	$m_A$ GeV vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	27
45	$\log_{10}\text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	28
46	$\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	28
47	$\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	29
48	$\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	29
49	$\log_{10}\text{BR}(A \rightarrow HZ)$ vs. $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ . . . . .	30
50	$\log_{10}\tan\beta$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	31
51	$m_A$ GeV vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	31
52	$\log_{10}\text{BR}(A \rightarrow e^+e^-)$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	32
53	$\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	32
54	$\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	33
55	$\log_{10}\text{BR}(A \rightarrow \bar{t}t)$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	33
56	$\log_{10}\text{BR}(A \rightarrow \bar{b}b)$ vs. $\log_{10}\text{BR}(A \rightarrow HZ)$ . . . . .	34

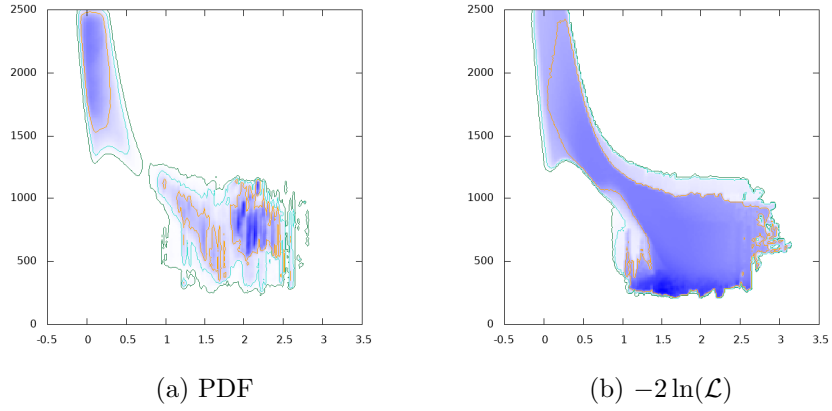


Figure 1:  $m_A$  GeV vs.  $\log_{10} \tan \beta$

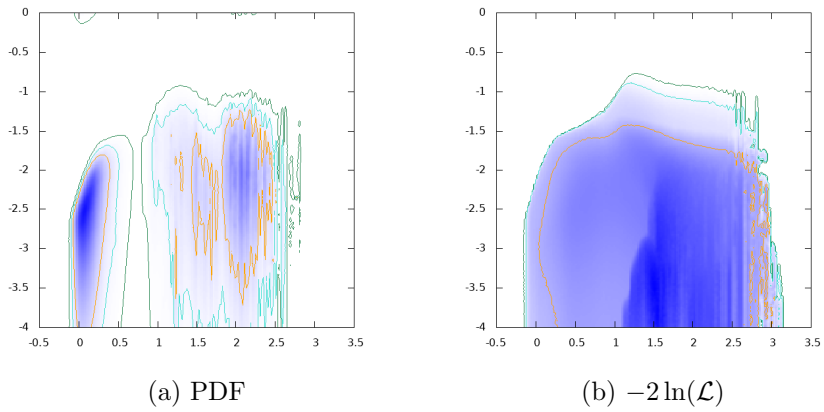


Figure 2:  $\log_{10} \text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10} \tan \beta$

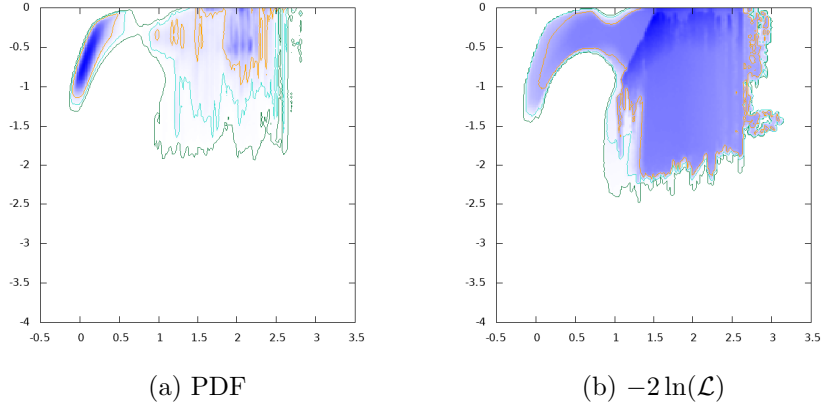


Figure 3:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10} \tan \beta$

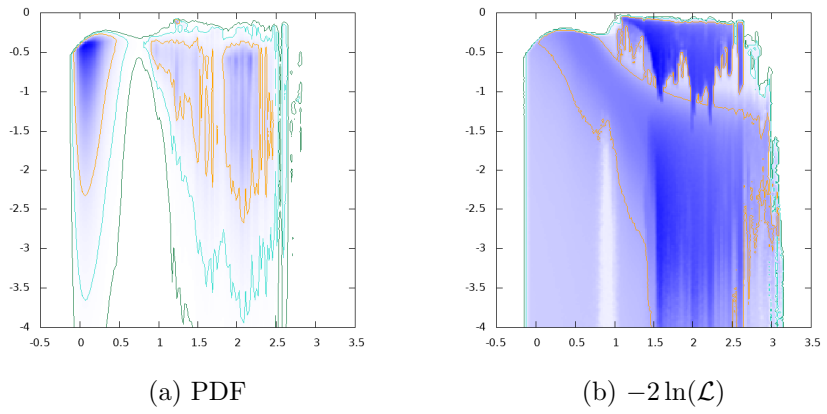


Figure 4:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10} \tan \beta$

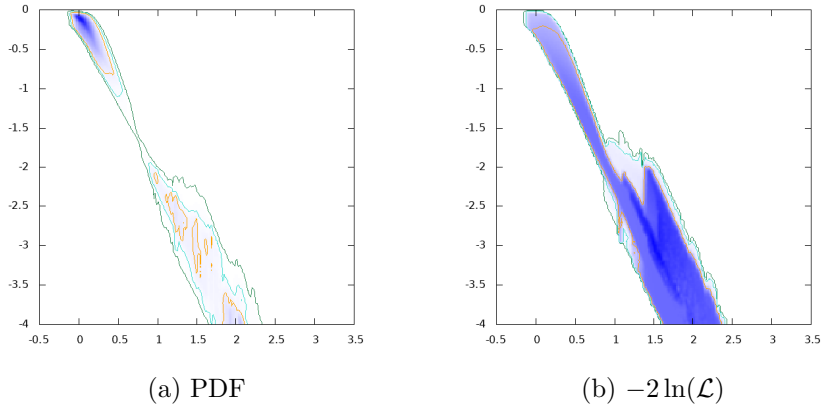


Figure 5:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10} \tan \beta$

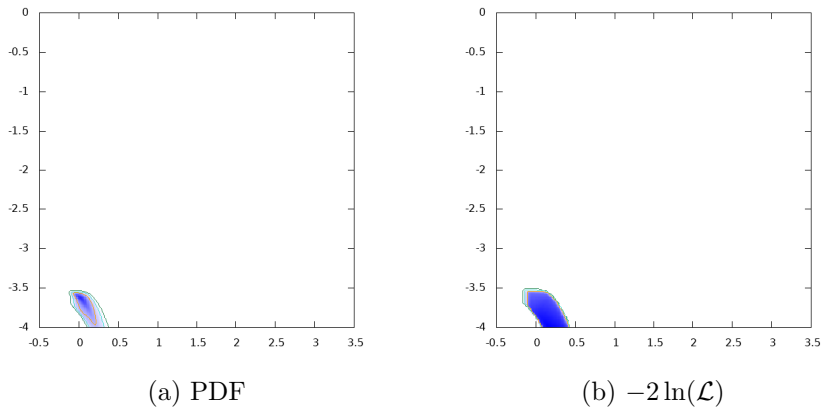


Figure 6:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10} \tan \beta$

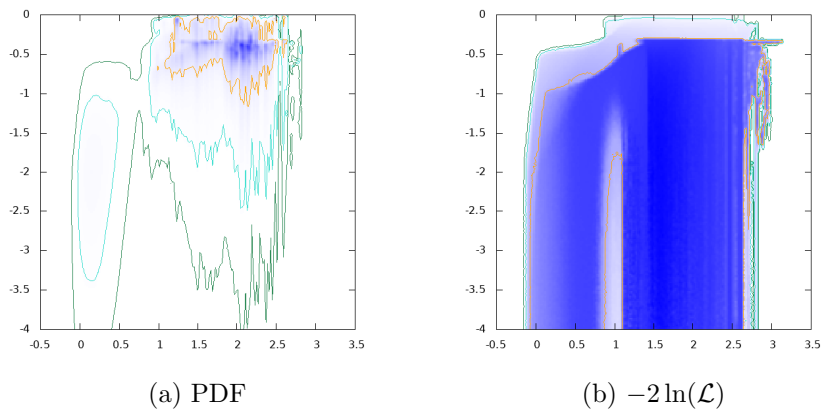


Figure 7:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10} \tan \beta$

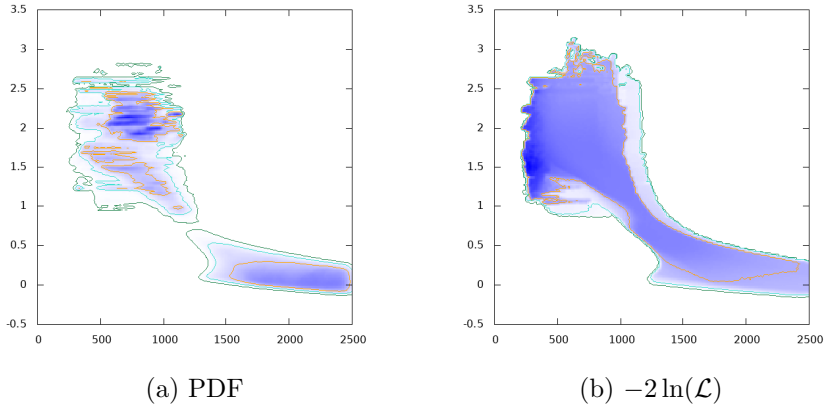


Figure 8:  $\log_{10} \tan \beta$  vs.  $m_A$  GeV

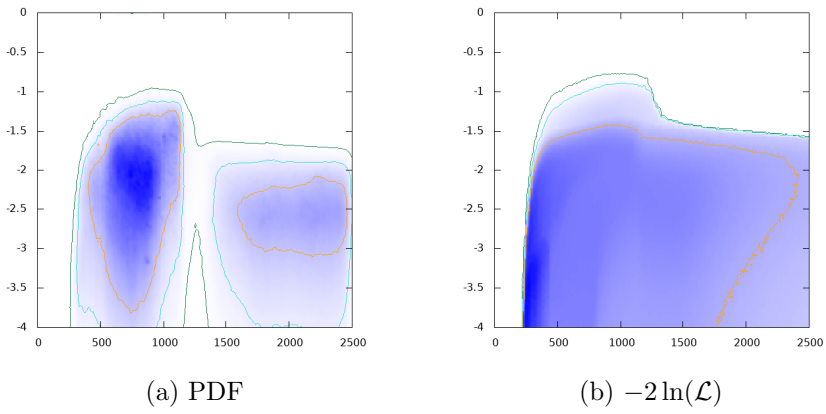


Figure 9:  $\log_{10} \text{BR}(A \rightarrow e^+e^-)$  vs.  $m_A$  GeV

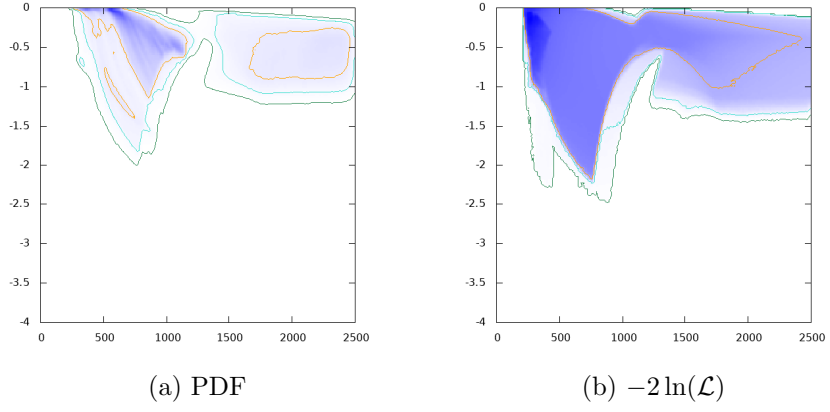


Figure 10:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $m_A$  GeV

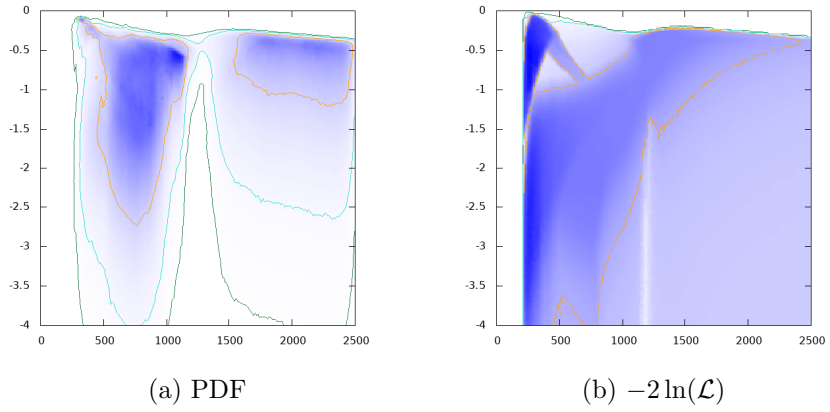


Figure 11:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $m_A$  GeV



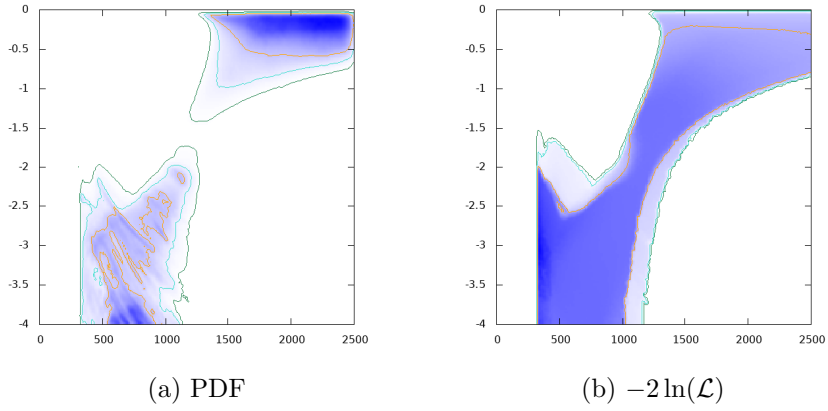


Figure 12:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $m_A$  GeV

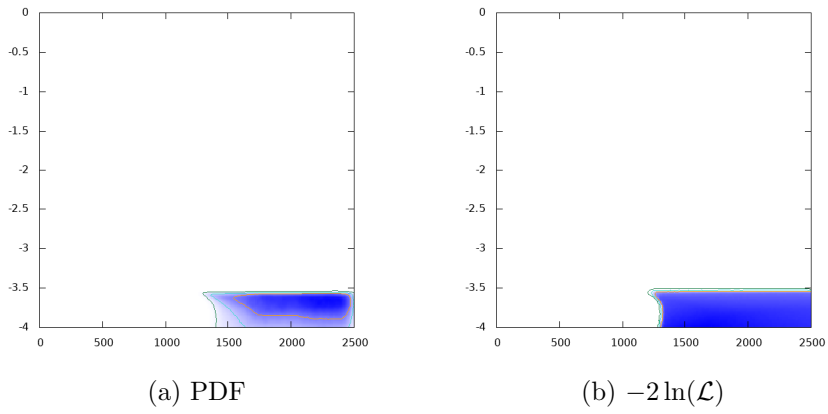


Figure 13:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $m_A$  GeV

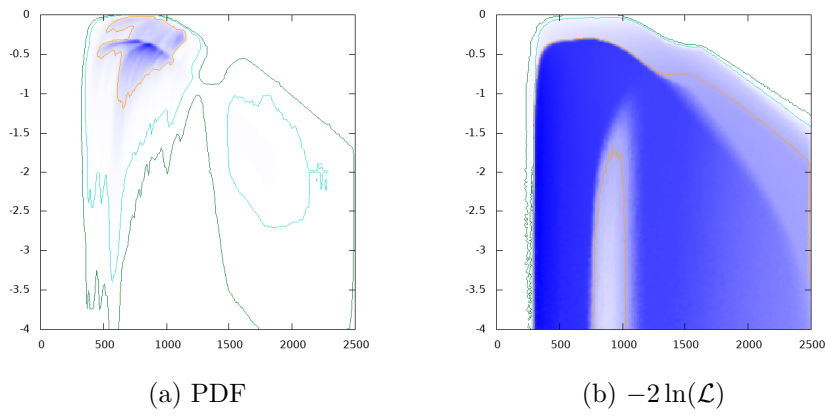


Figure 14:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $m_A$  GeV

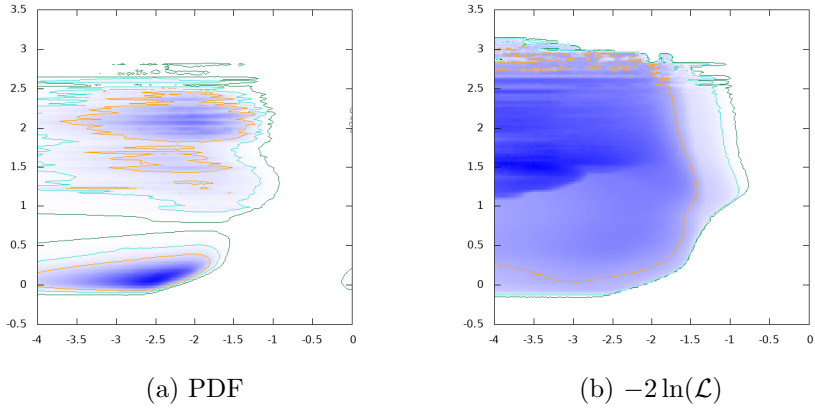


Figure 15:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow e^+e^-)$

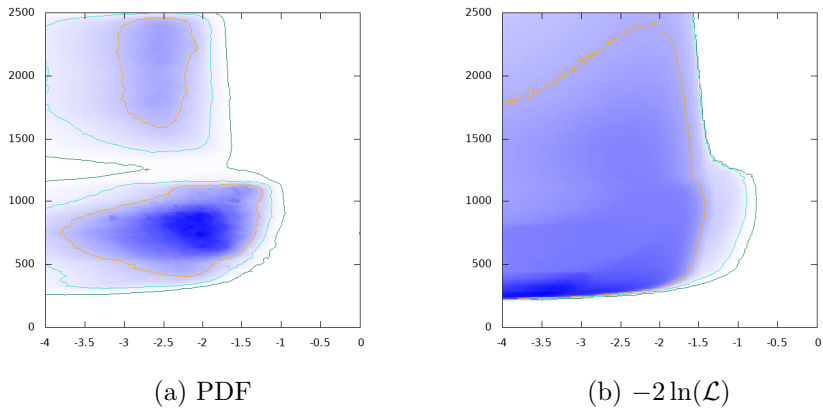


Figure 16:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow e^+e^-)$

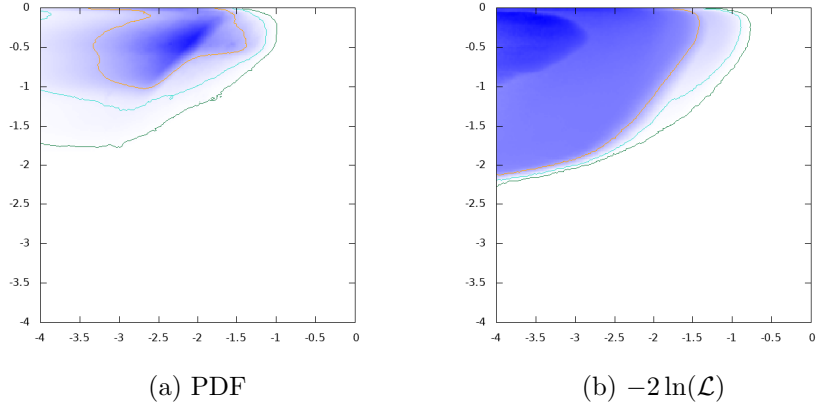


Figure 17:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

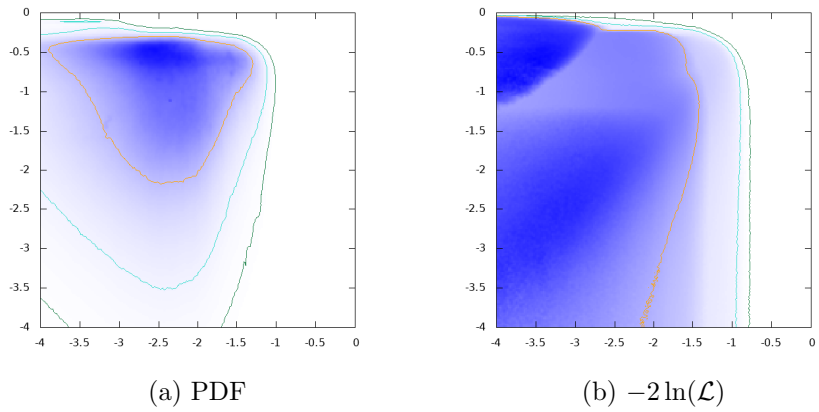


Figure 18:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

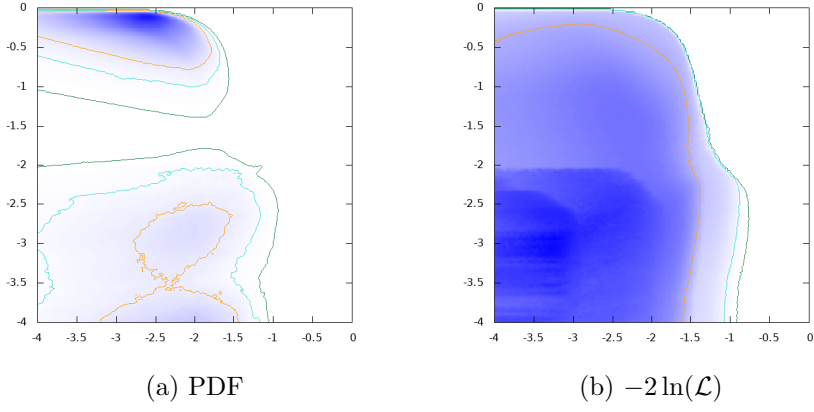


Figure 19:  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

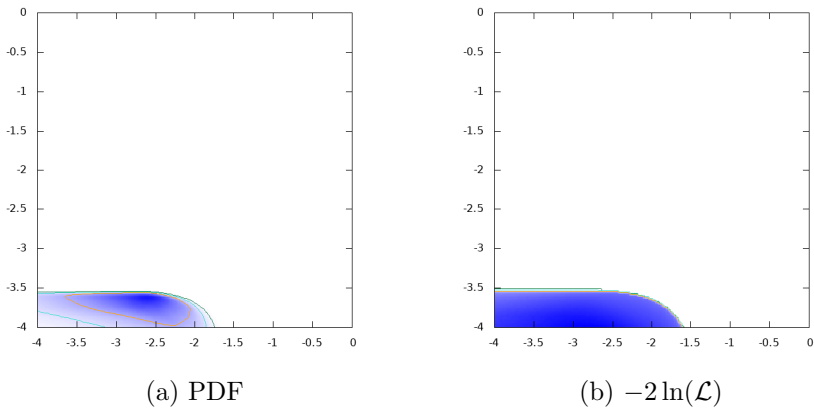


Figure 20:  $\log_{10}\text{BR}(A \rightarrow b\bar{b})$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

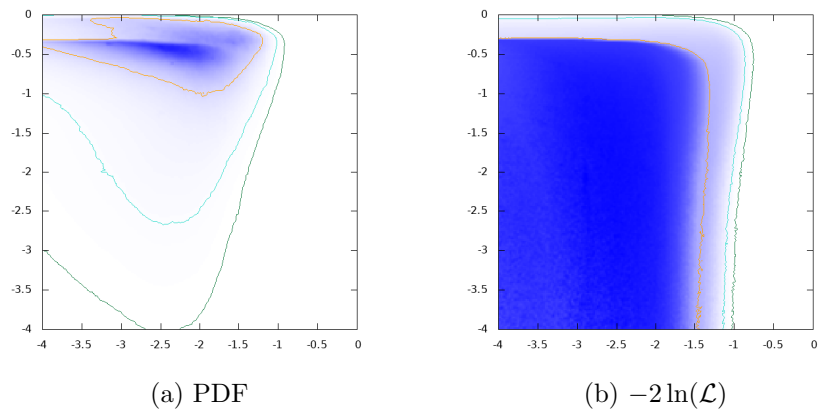


Figure 21:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

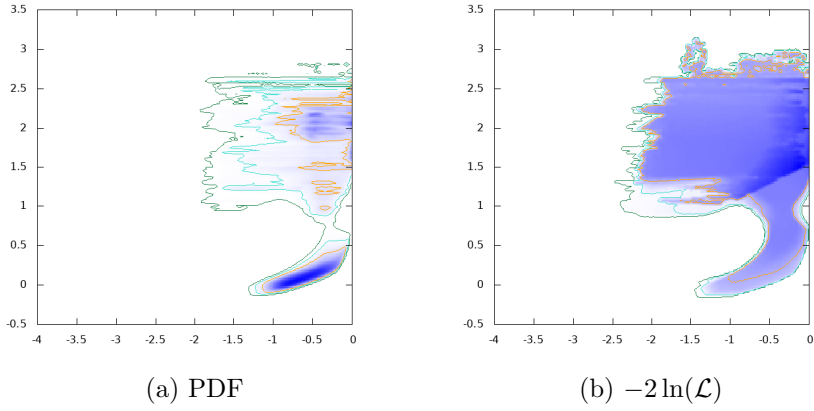


Figure 22:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \mu^+ \mu^-)$

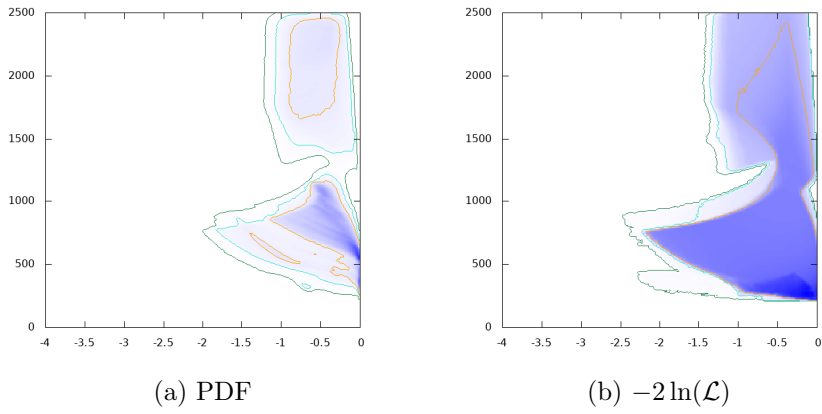


Figure 23:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow \mu^+ \mu^-)$

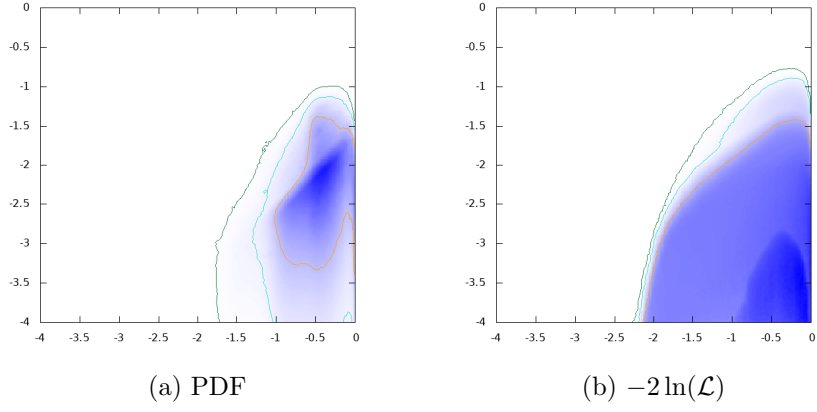


Figure 24:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

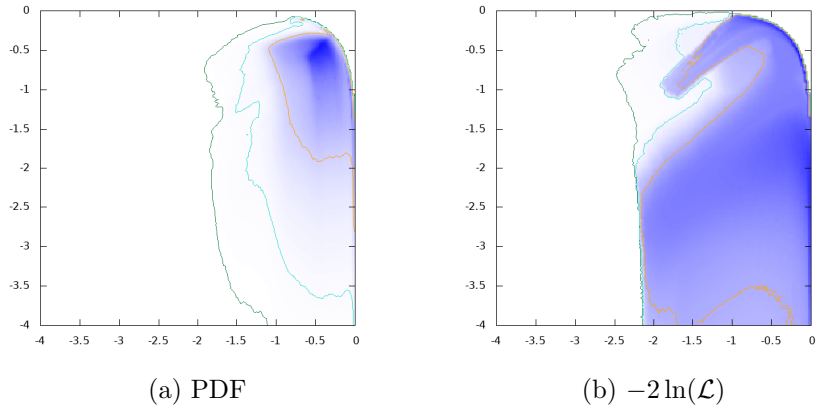


Figure 25:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$



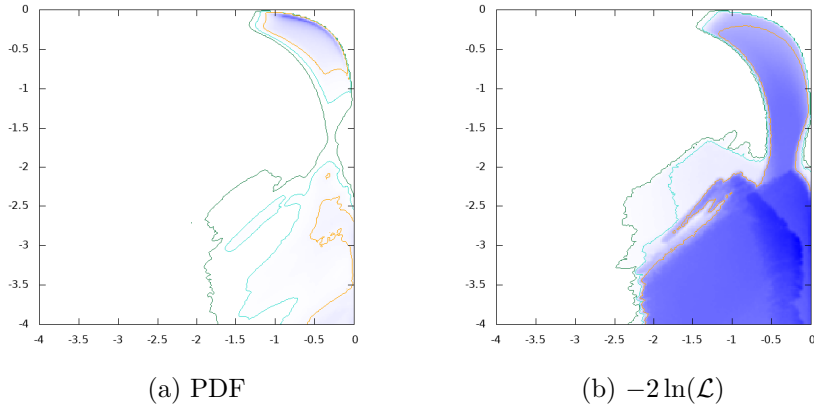


Figure 26:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

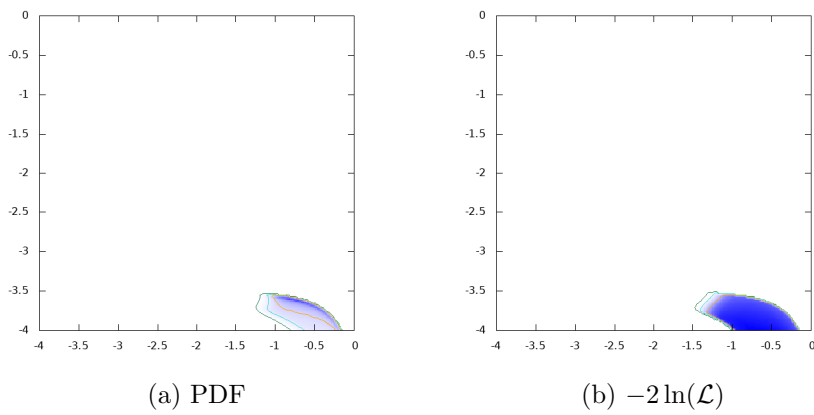


Figure 27:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

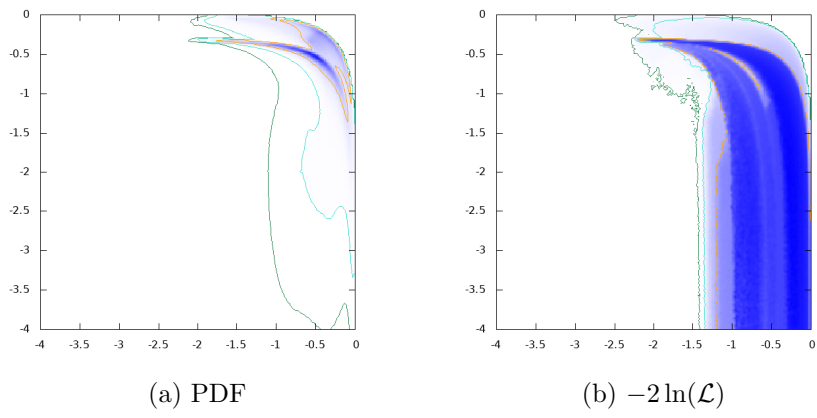


Figure 28:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

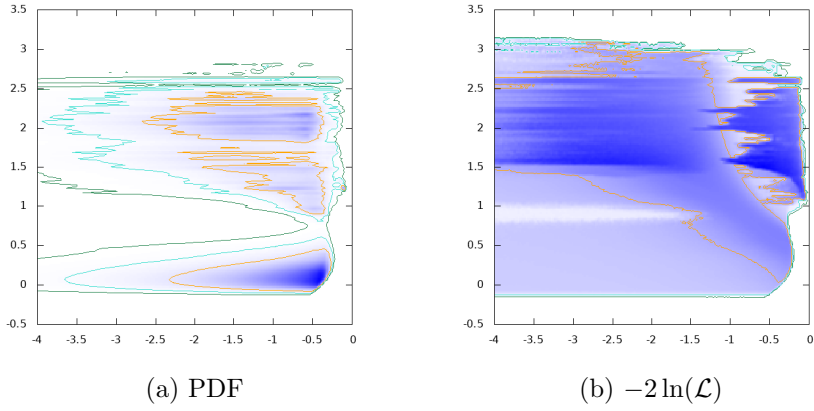


Figure 29:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \tau^+ \tau^-)$

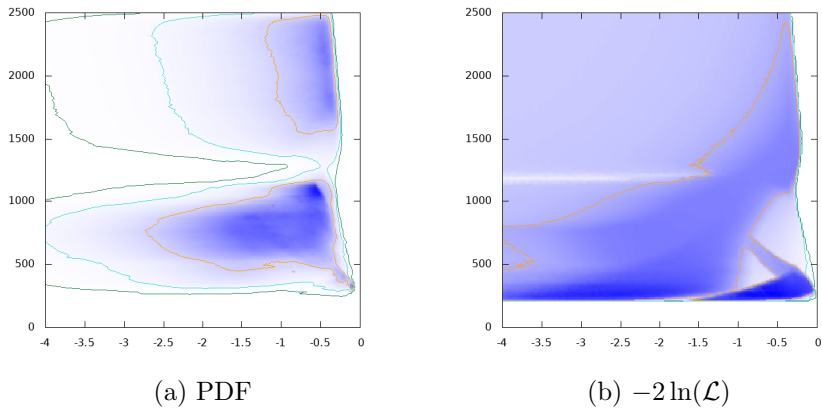


Figure 30:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow \tau^+ \tau^-)$

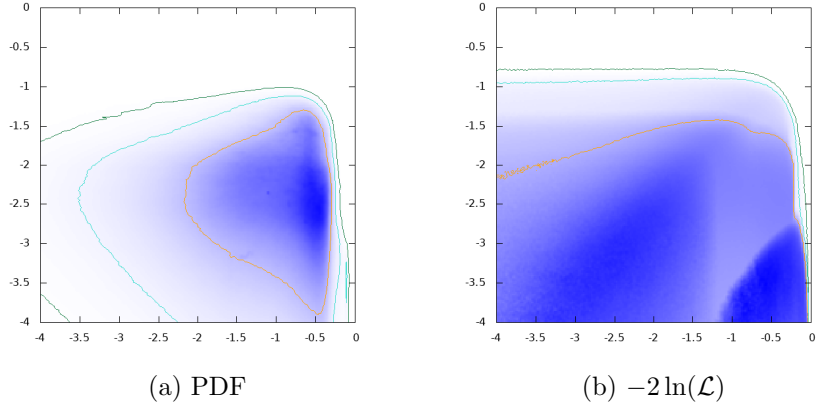


Figure 31:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

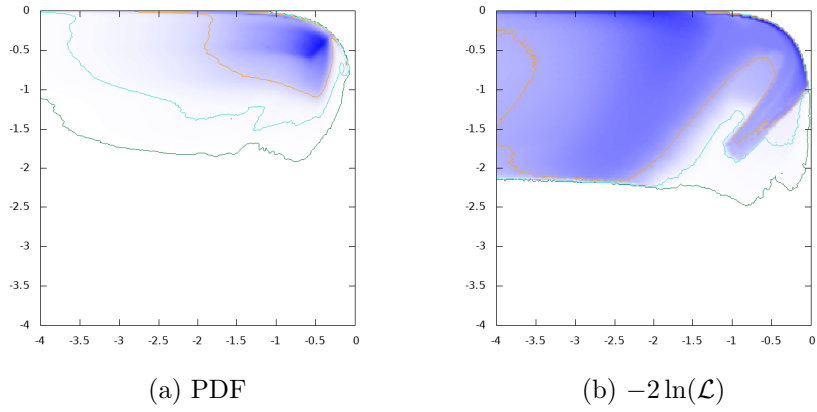


Figure 32:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

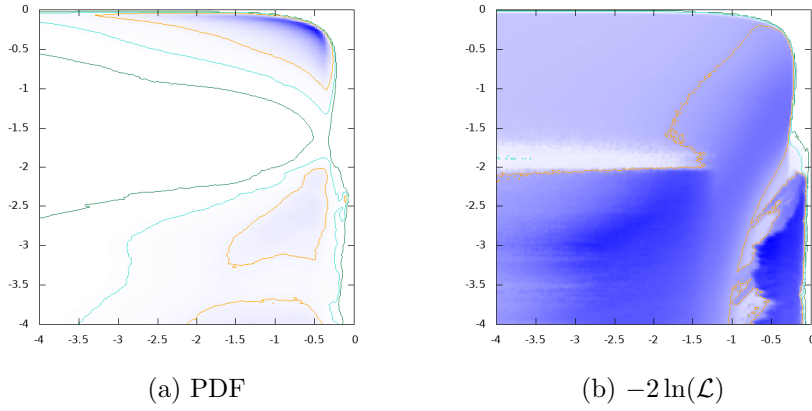


Figure 33:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

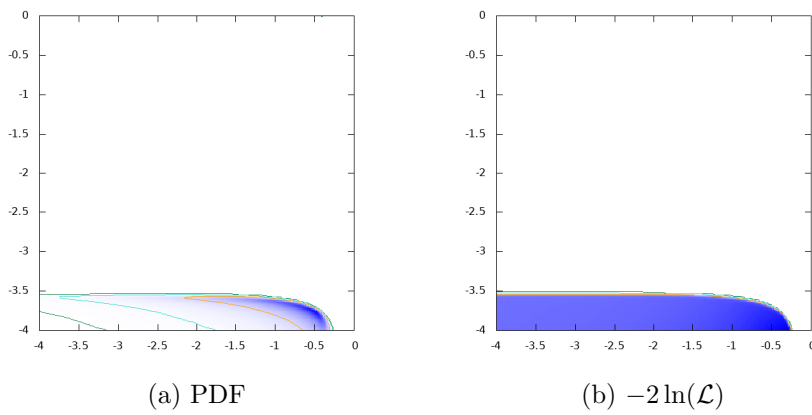


Figure 34:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

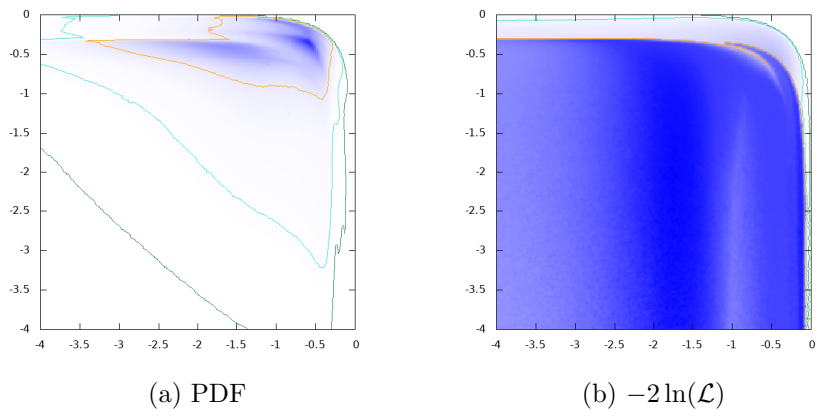


Figure 35:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

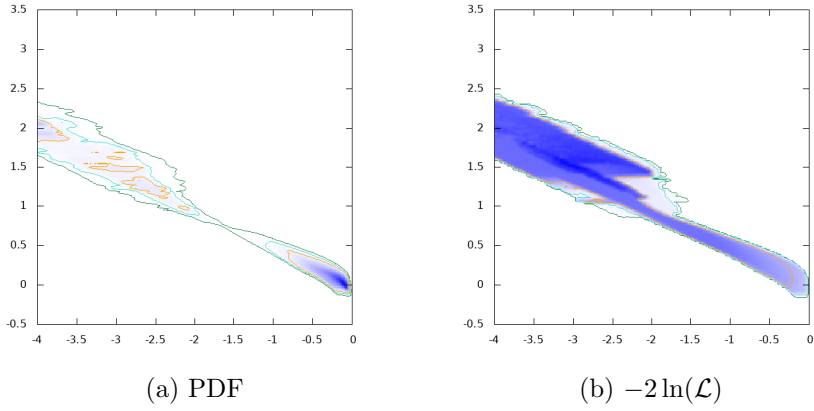


Figure 36:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow t\bar{t})$

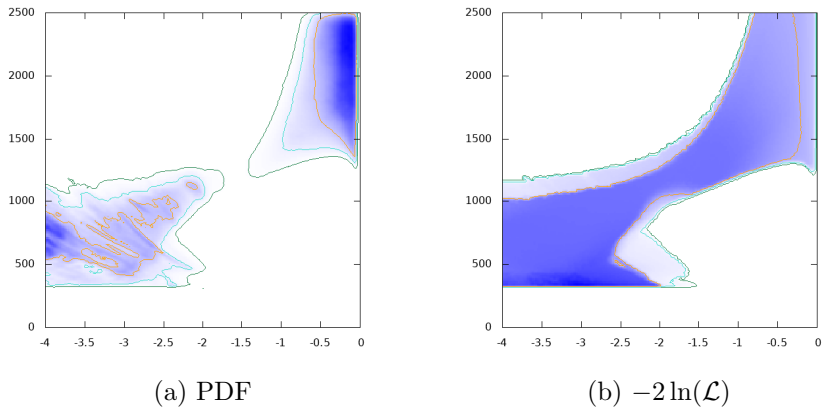


Figure 37:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow t\bar{t})$

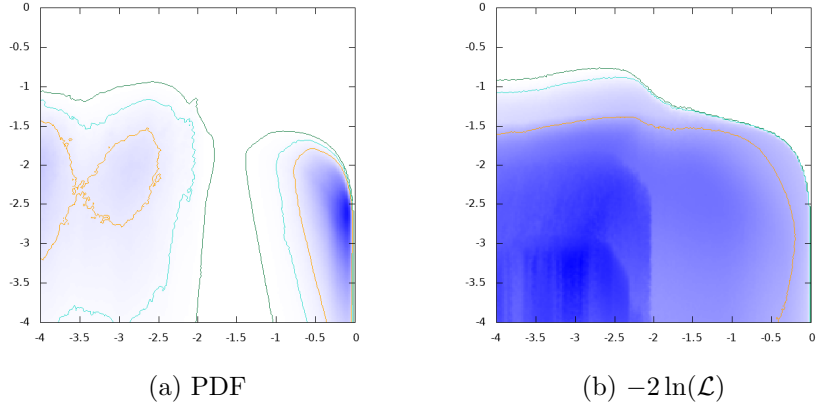


Figure 38:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

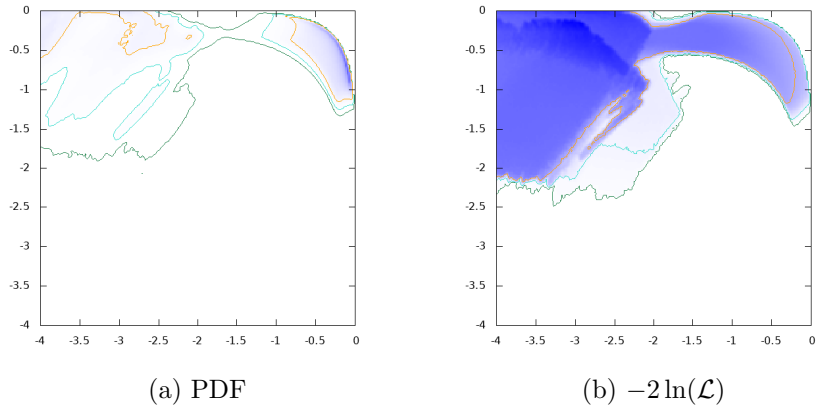


Figure 39:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$



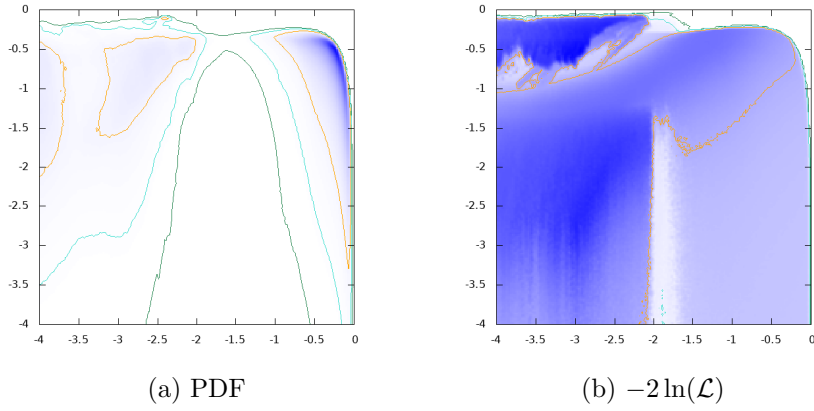


Figure 40:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

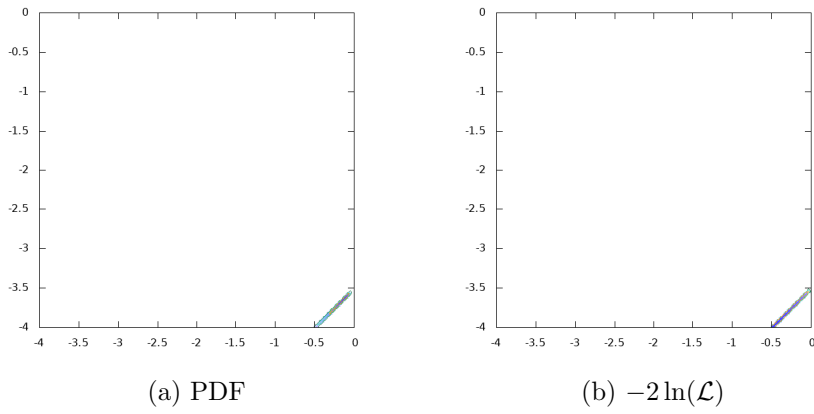


Figure 41:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

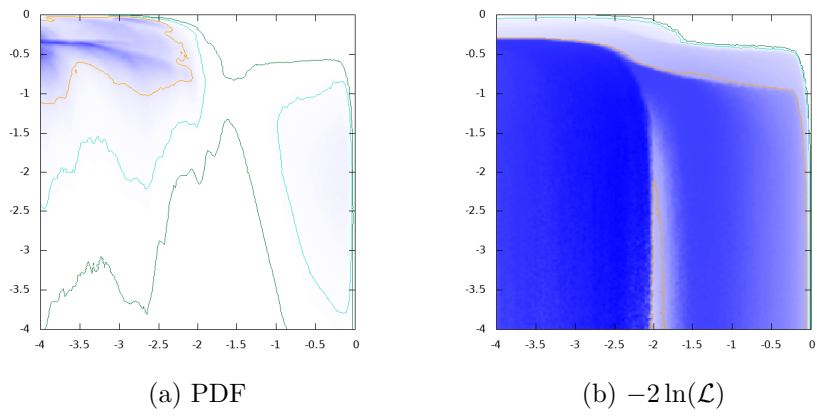


Figure 42:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

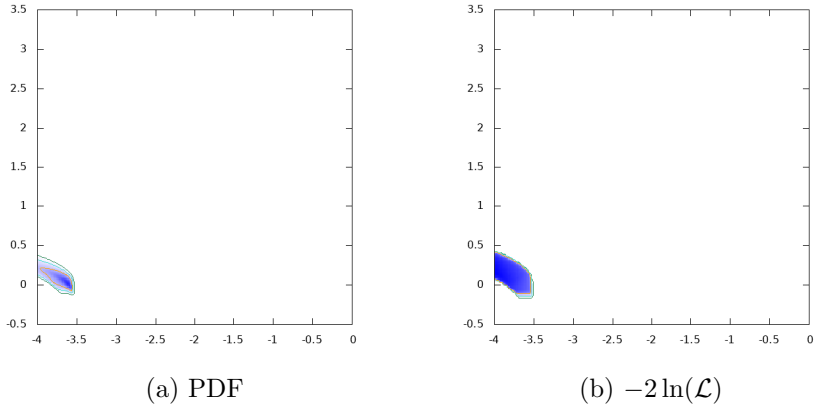


Figure 43:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \bar{b}b)$

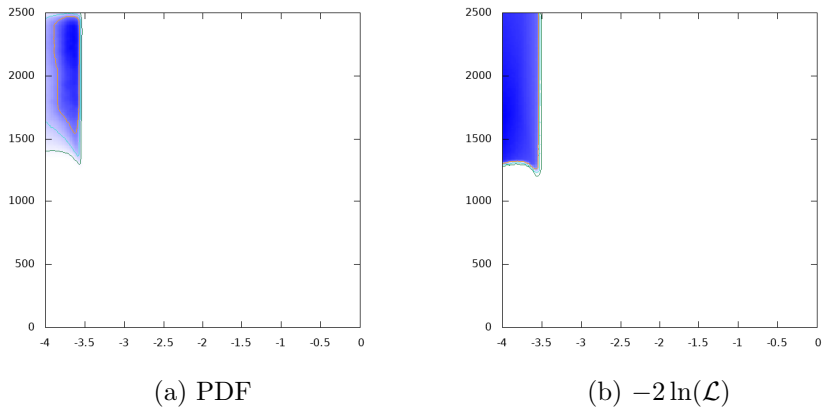


Figure 44:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow \bar{b}b)$

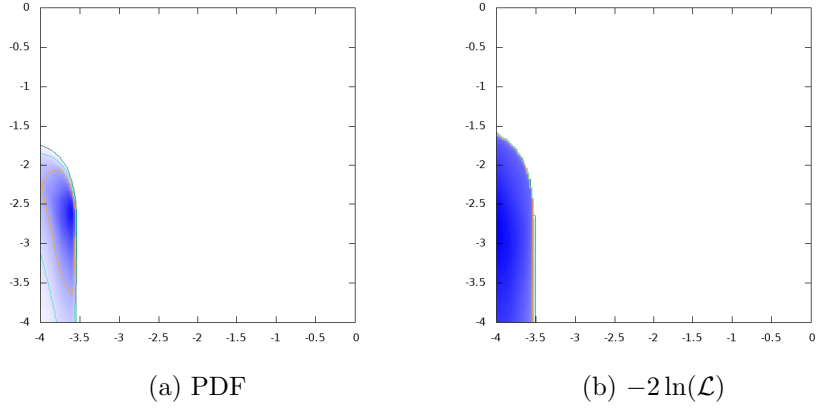


Figure 45:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

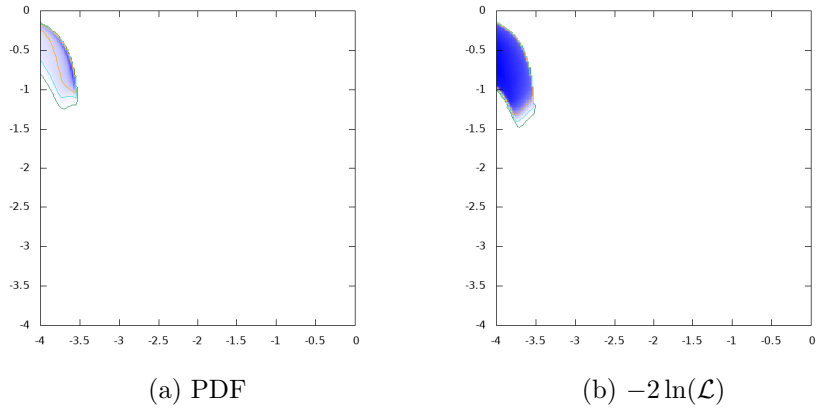


Figure 46:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

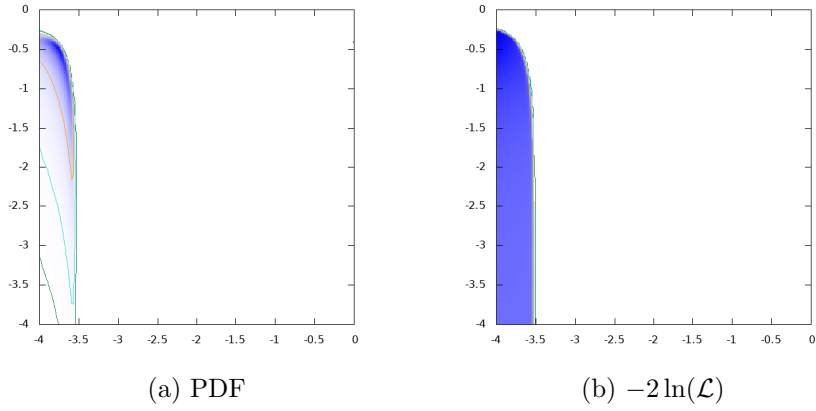


Figure 47:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

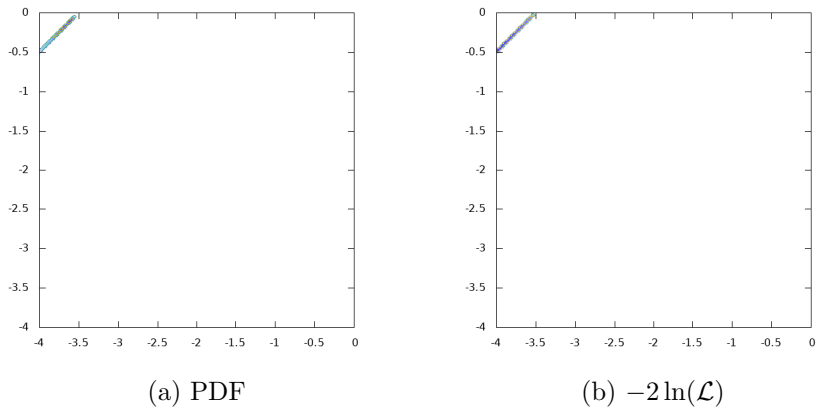


Figure 48:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

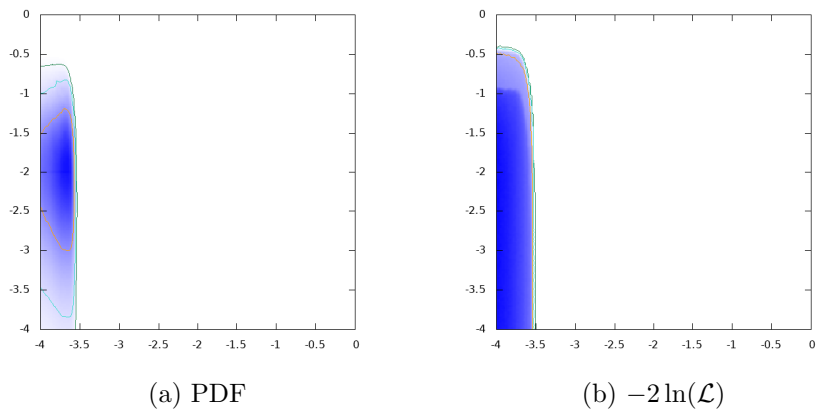


Figure 49:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

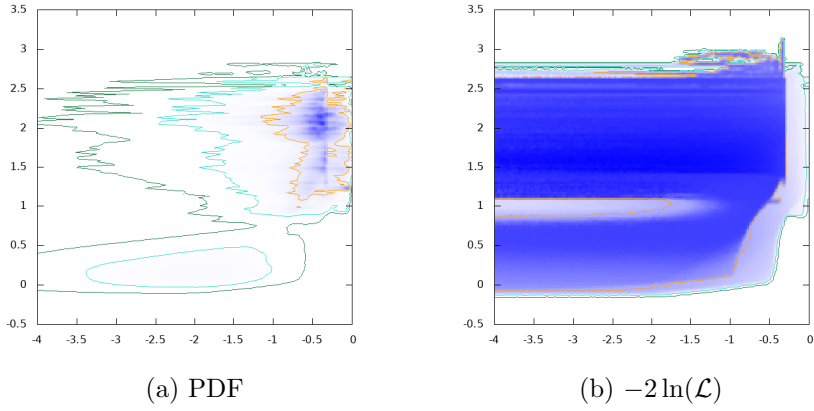


Figure 50:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow HZ)$

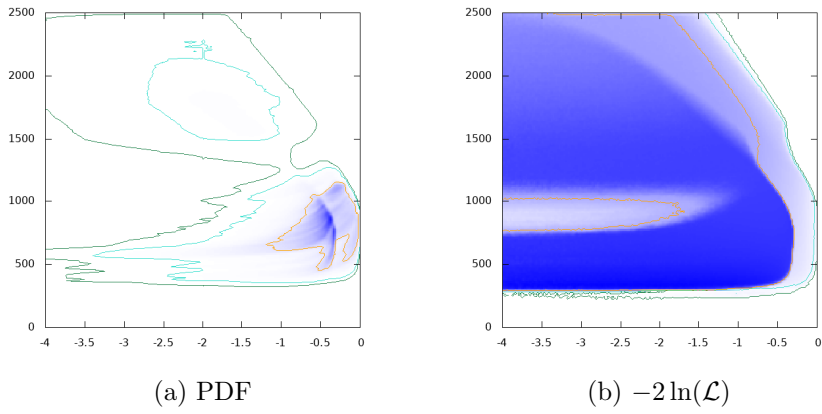


Figure 51:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow HZ)$

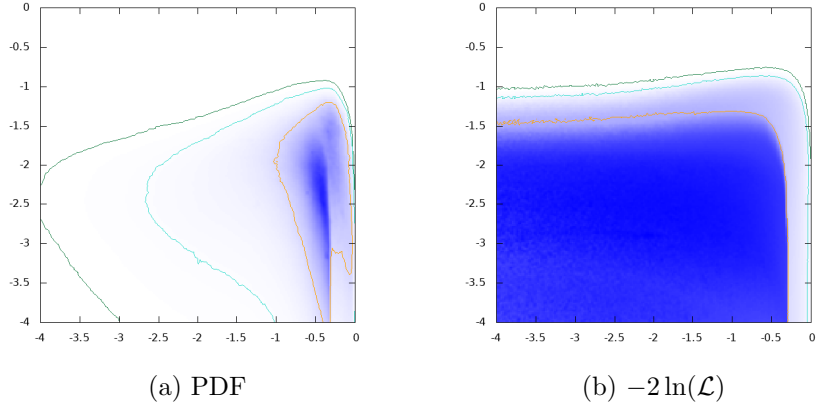


Figure 52:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

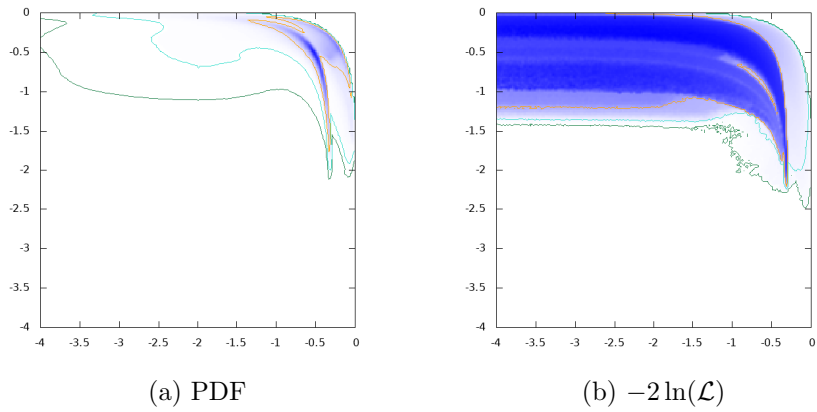


Figure 53:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$



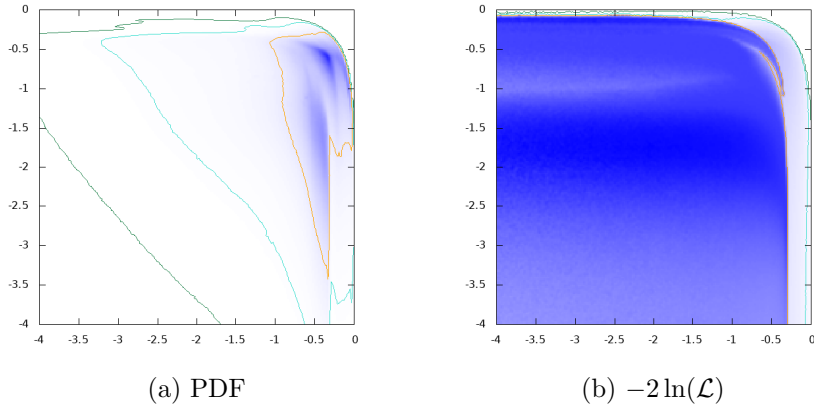


Figure 54:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

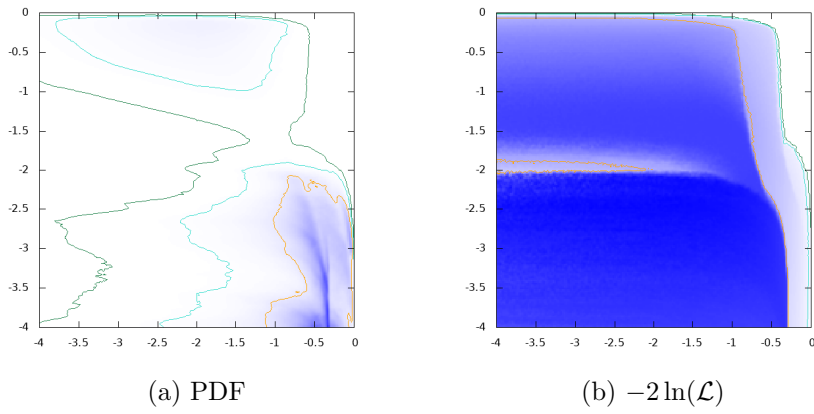


Figure 55:  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

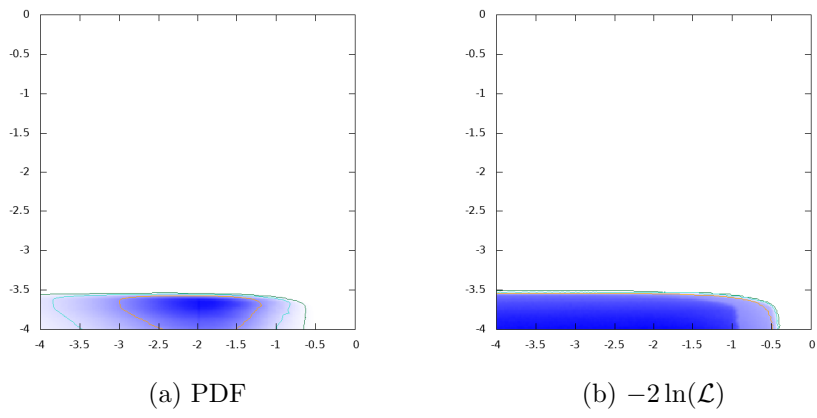


Figure 56:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$