

# Two-dimensional plots - Summary group 6

February 21, 2022

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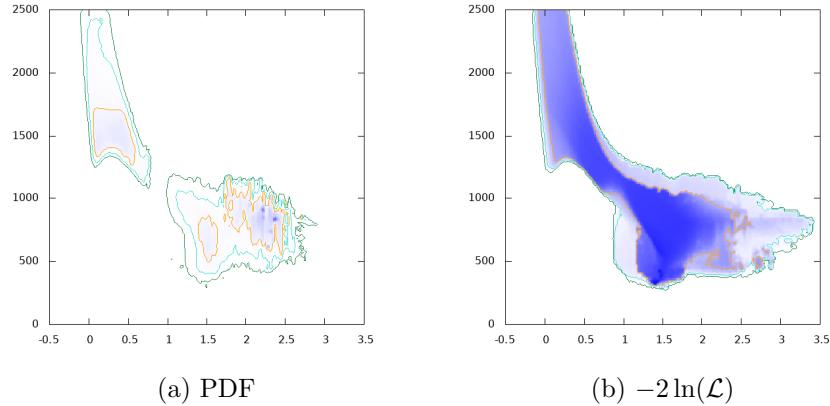


Figure 1:  $m_A$  GeV vs.  $\log_{10} \tan \beta$

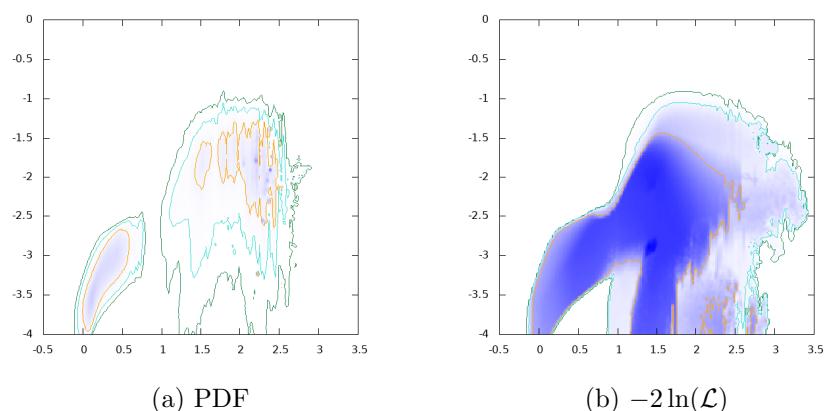


Figure 2:  $\log_{10} \text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10} \tan \beta$

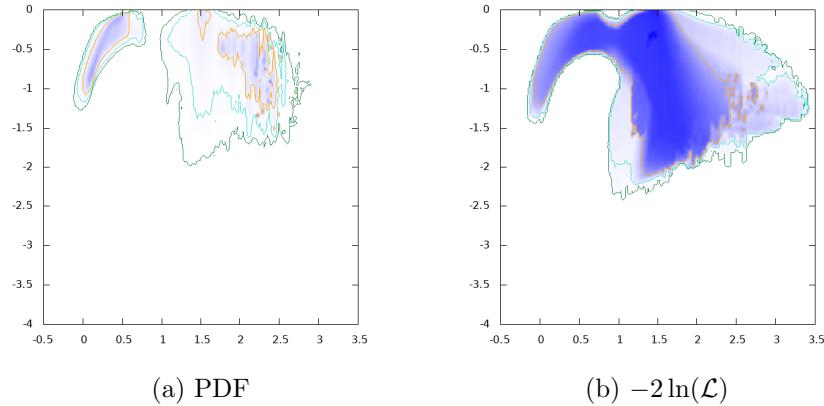


Figure 3:  $\log_{10} \text{BR}(A \rightarrow \mu^+ \mu^-)$  vs.  $\log_{10} \tan \beta$

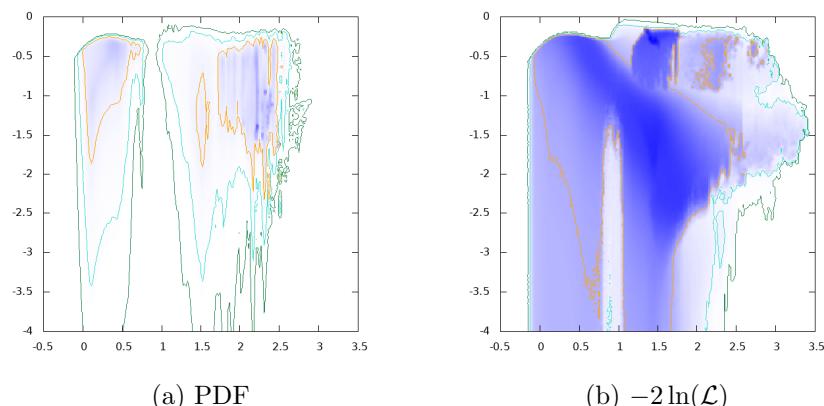


Figure 4:  $\log_{10} \text{BR}(A \rightarrow \tau^+ \tau^-)$  vs.  $\log_{10} \tan \beta$

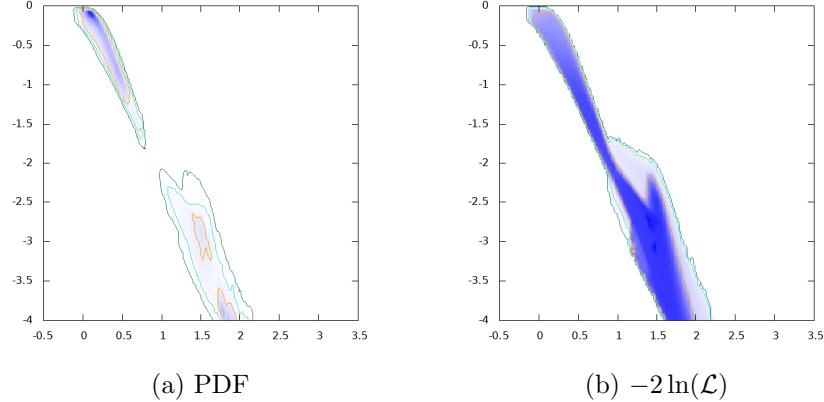


Figure 5:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10} \tan \beta$

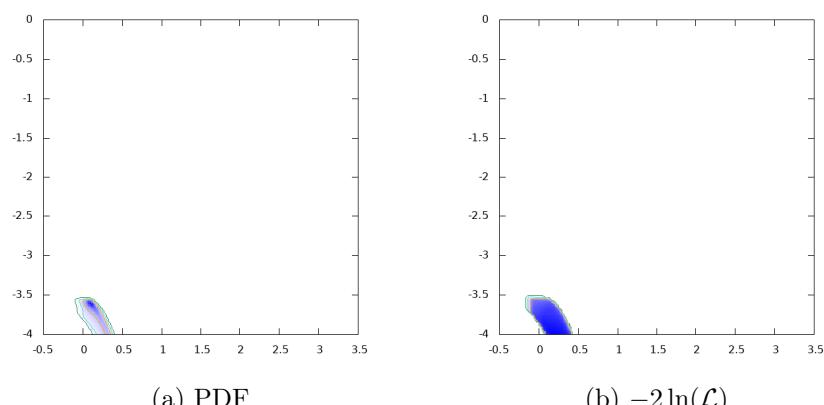


Figure 6:  $\log_{10} \text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10} \tan \beta$

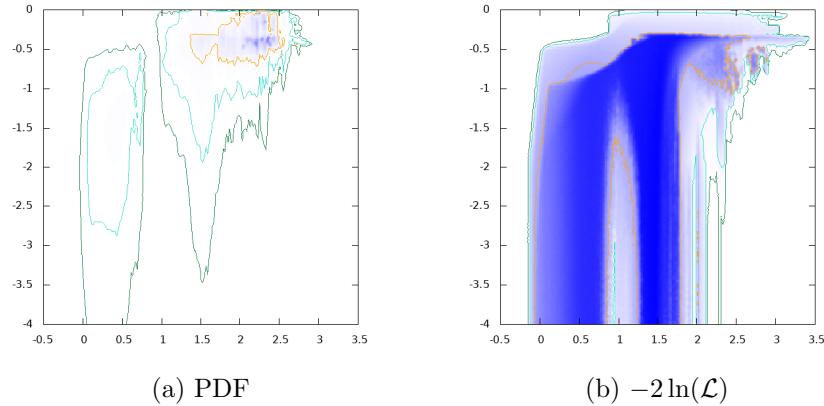


Figure 7:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10} \tan \beta$

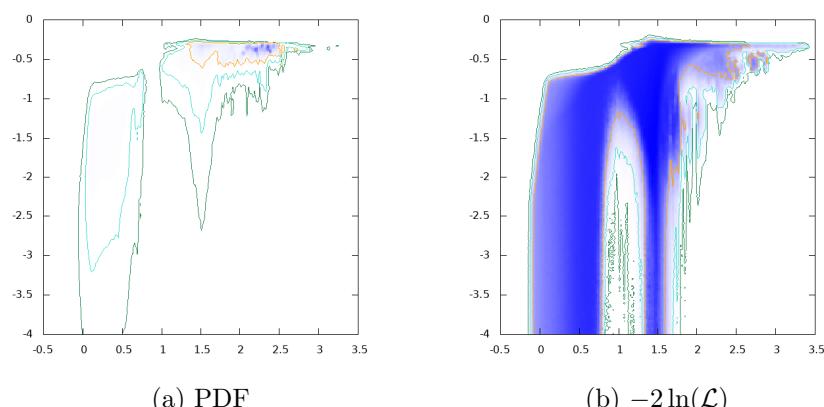


Figure 8:  $\log_{10} \text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10} \tan \beta$

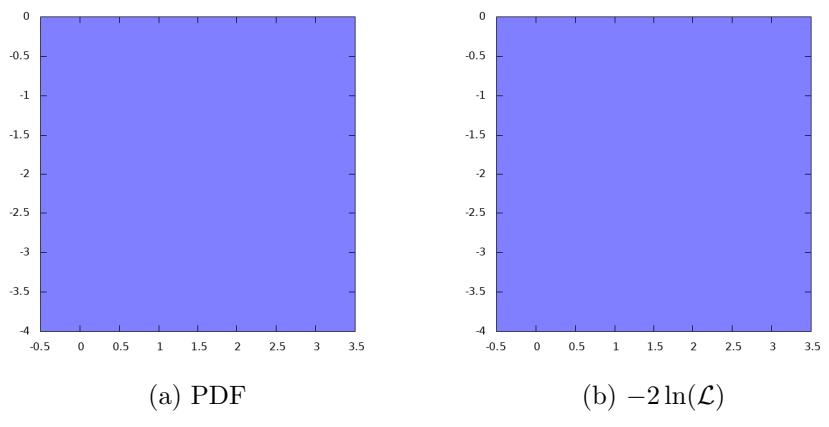


Figure 9:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10} \tan \beta$

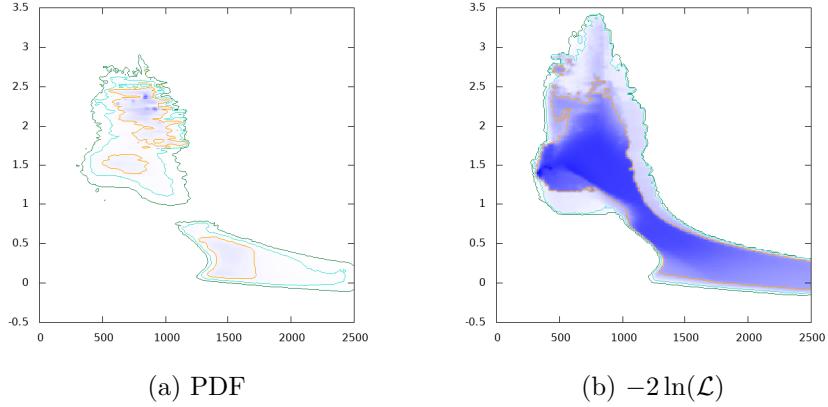


Figure 10:  $\log_{10} \tan \beta$  vs.  $m_A$  GeV

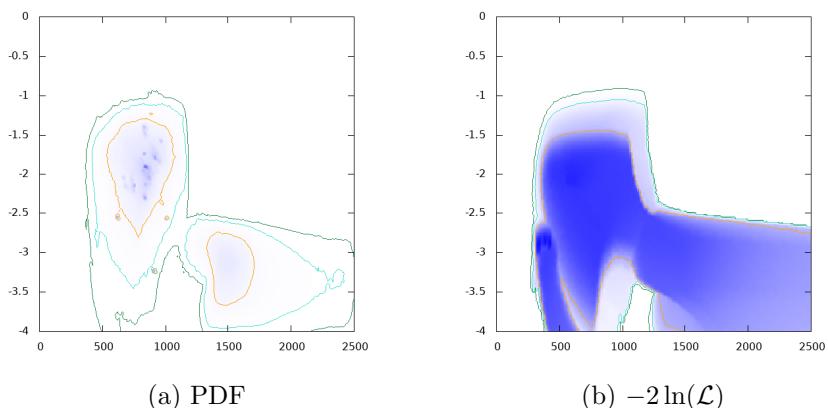


Figure 11:  $\log_{10} \text{BR}(A \rightarrow e^+ e^-)$  vs.  $m_A$  GeV

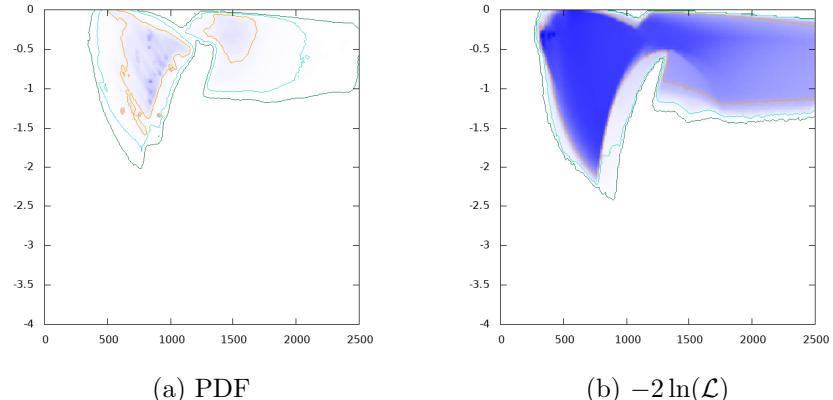


Figure 12:  $\log_{10} \text{BR}(A \rightarrow \mu^+ \mu^-)$  vs.  $m_A$  GeV

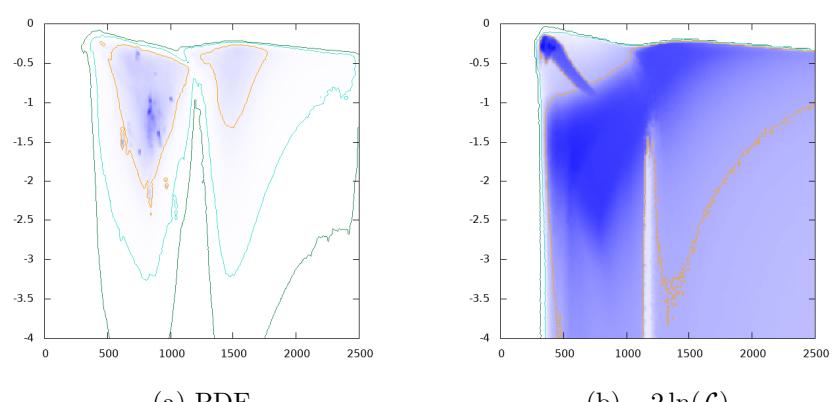


Figure 13:  $\log_{10} \text{BB}(A \rightarrow \tau^+ \tau^-)$  vs.  $m_A$  GeV

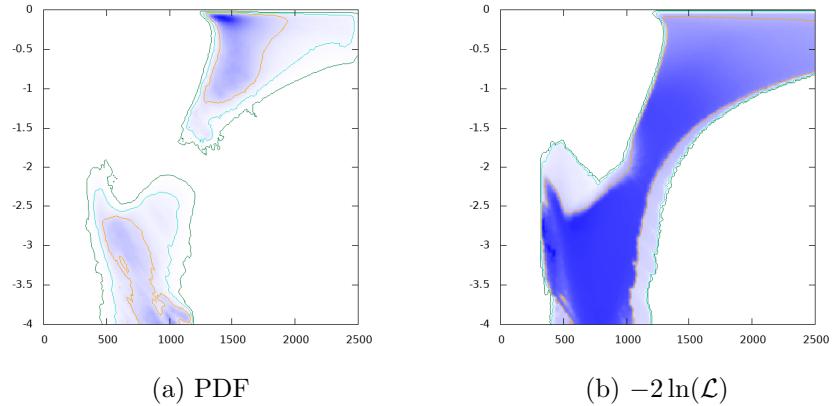


Figure 14:  $\log_{10} \text{BR}(A \rightarrow \bar{t}t)$  vs.  $m_A$  GeV

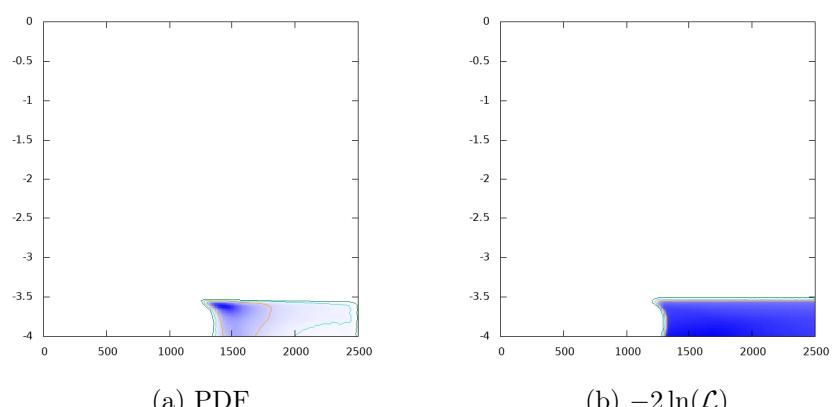


Figure 15:  $\log_{10} \text{BR}(A \rightarrow \bar{b}b)$  vs.  $m_A$  GeV

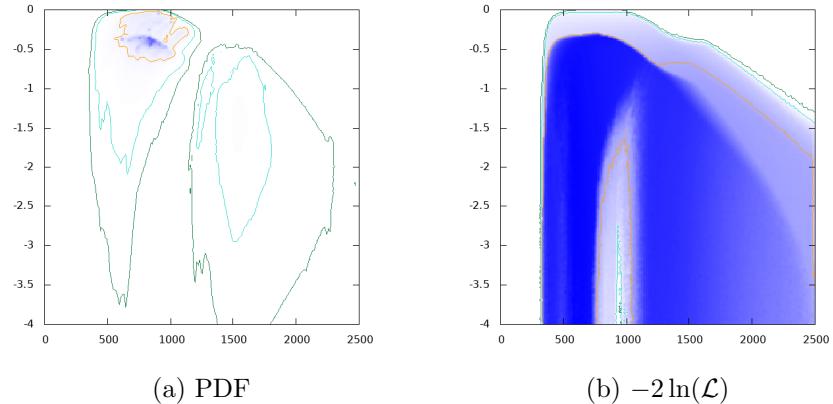


Figure 16:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $m_A$  GeV

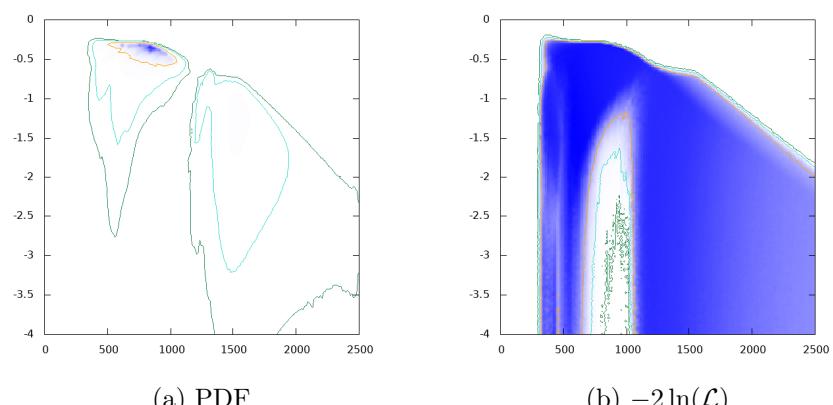


Figure 17:  $\log_{10} \text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $m_A$  GeV

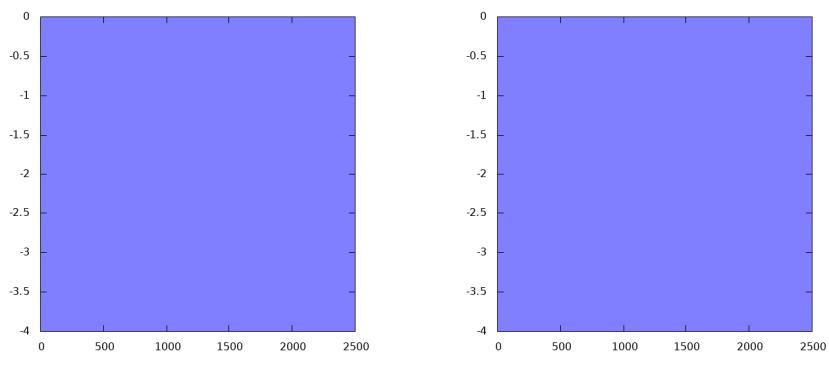


Figure 18:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $m_A$  GeV

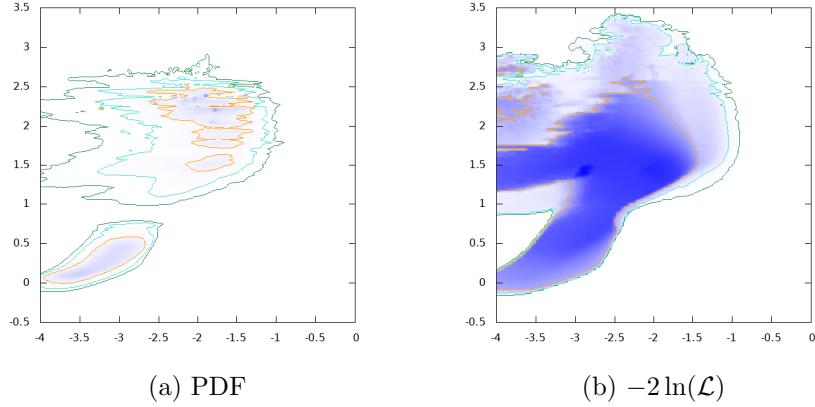


Figure 19:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow e^+ e^-)$

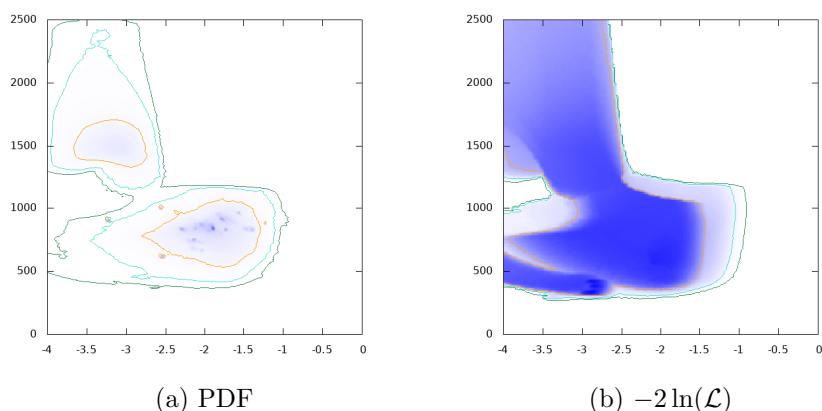


Figure 20:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow e^+ e^-)$

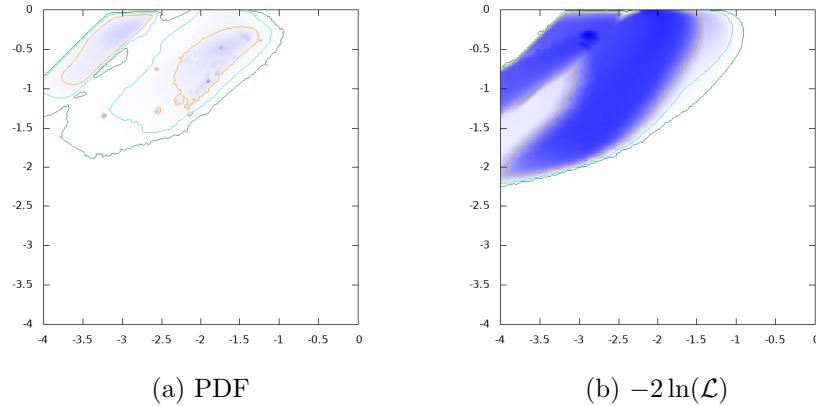


Figure 21:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

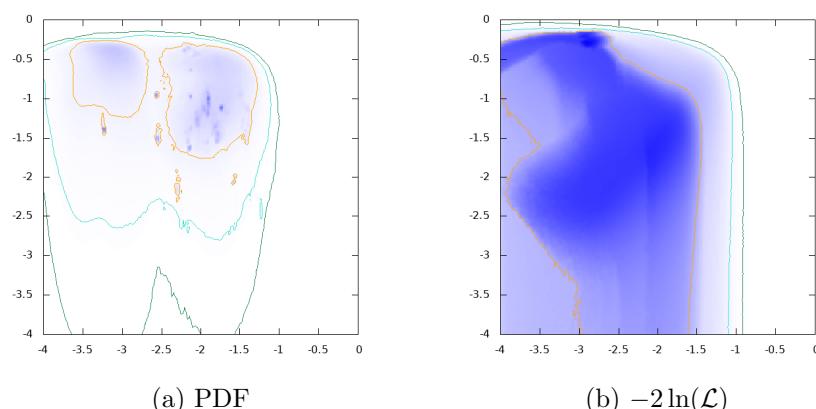


Figure 22:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

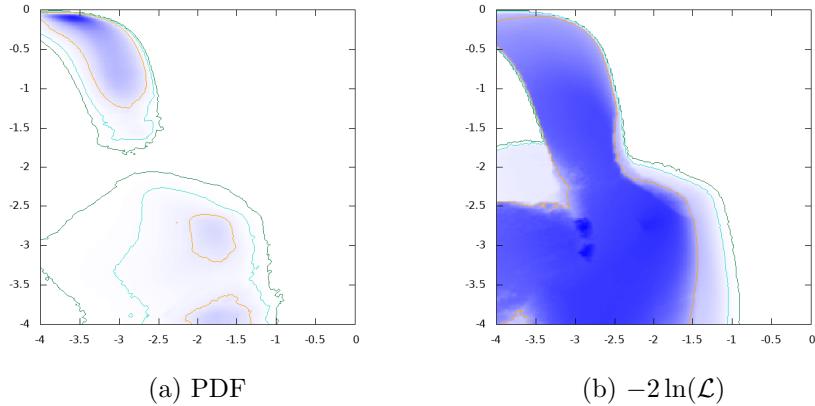


Figure 23:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

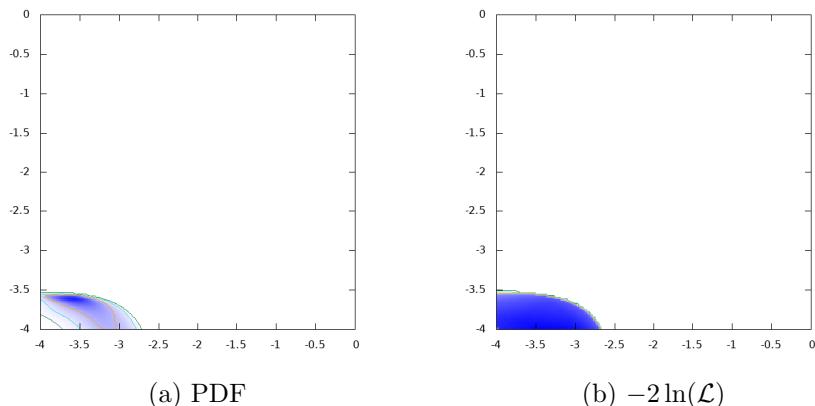


Figure 24:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

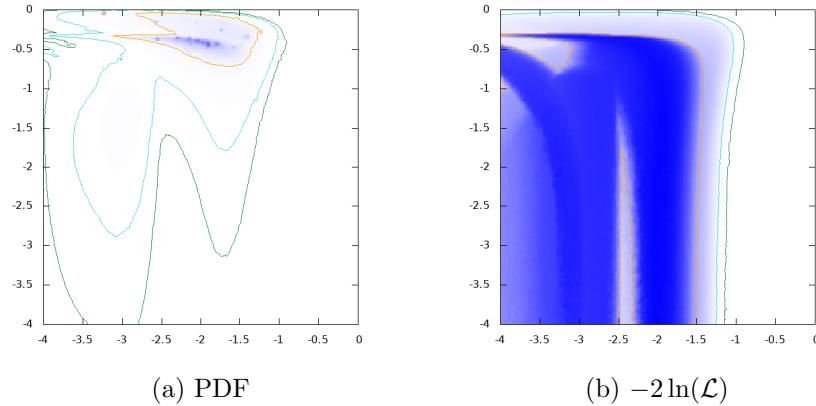


Figure 25:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

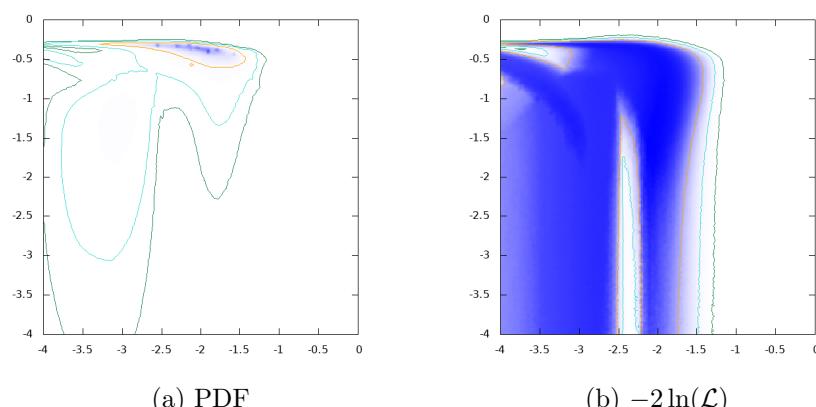


Figure 26:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

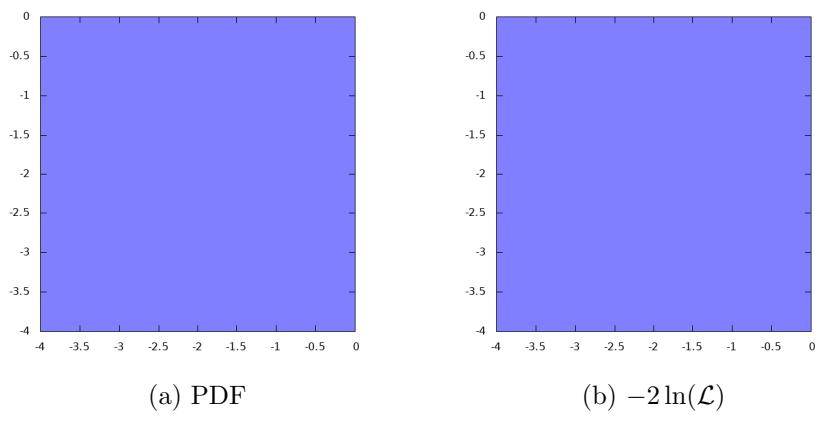
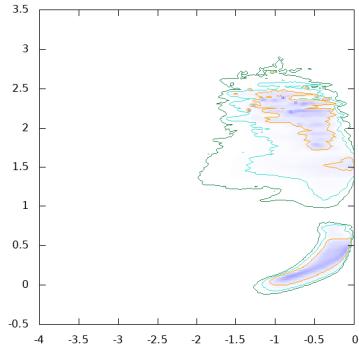
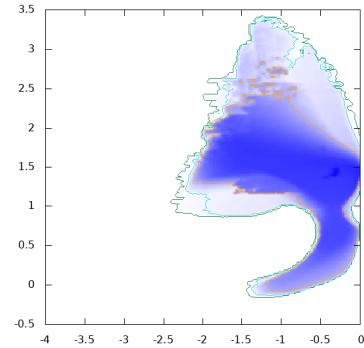


Figure 27:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$

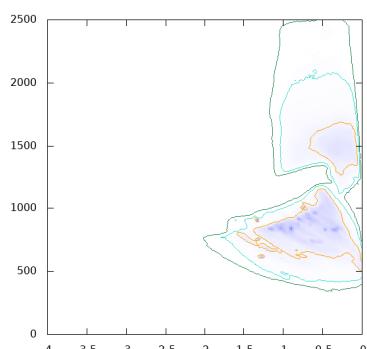


(a) PDF

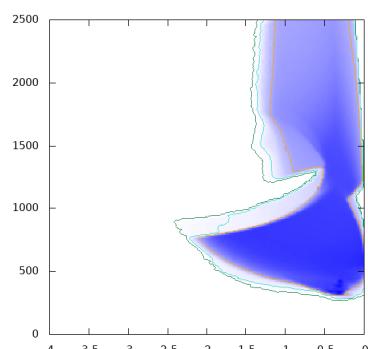


(b)  $-2 \ln(\mathcal{L})$

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



(a) PDF



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

Figure 29:  $m_A$  GeV vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

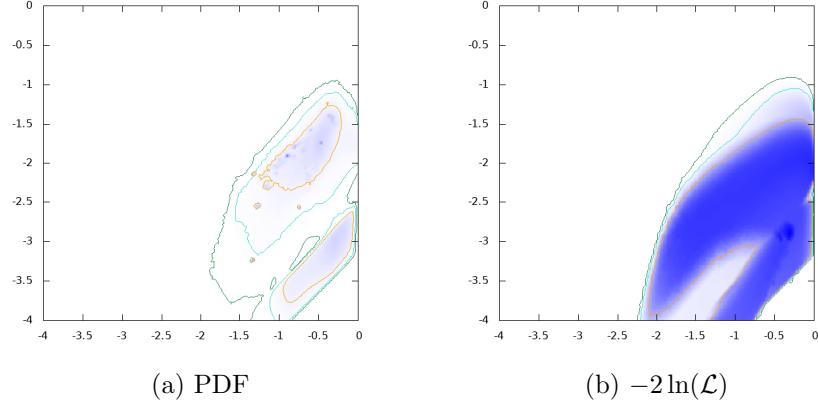


Figure 30:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

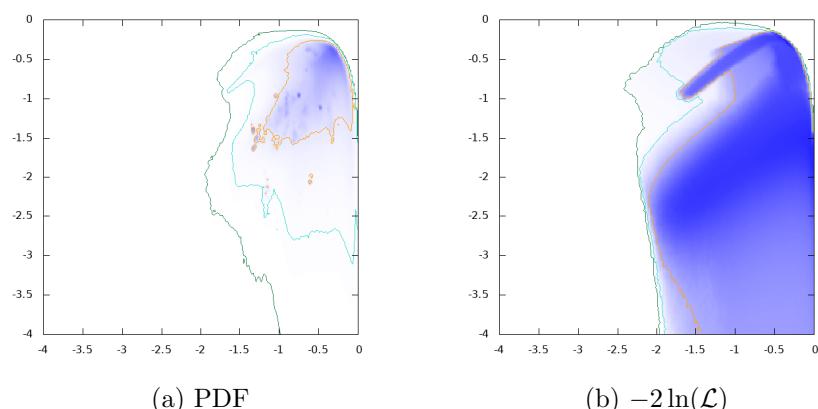


Figure 31:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

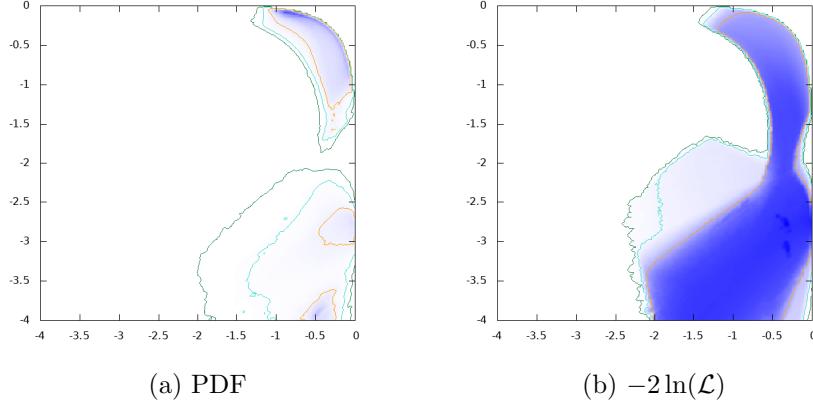


Figure 32:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

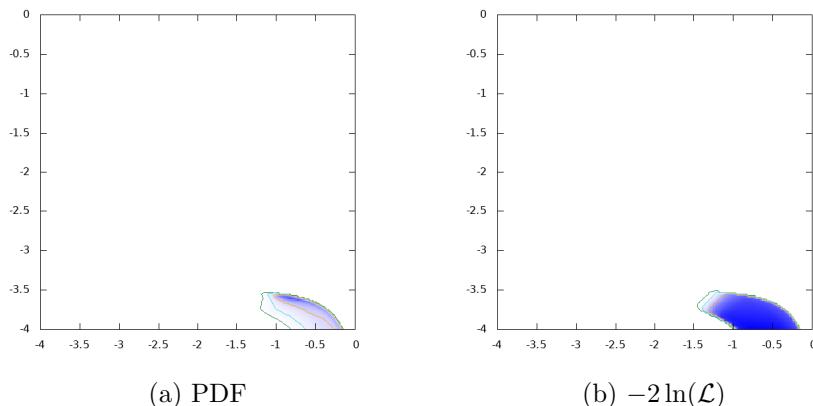


Figure 33:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

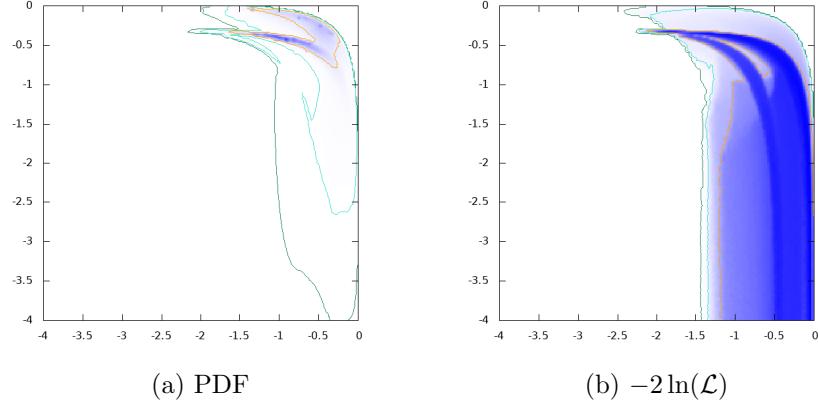


Figure 34:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

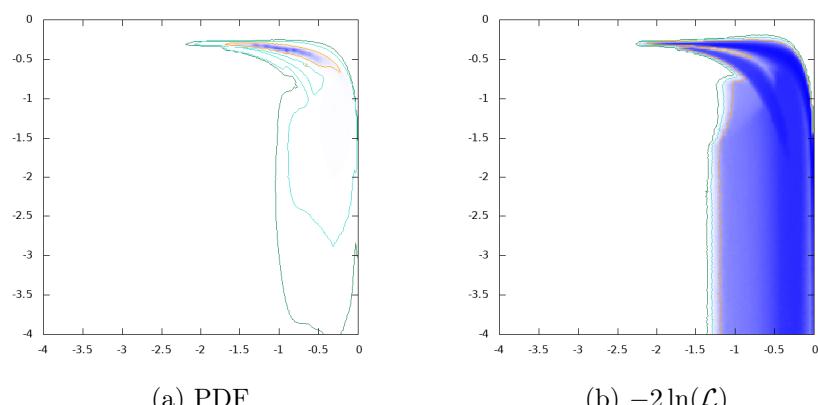


Figure 35:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+ \mu^-)$

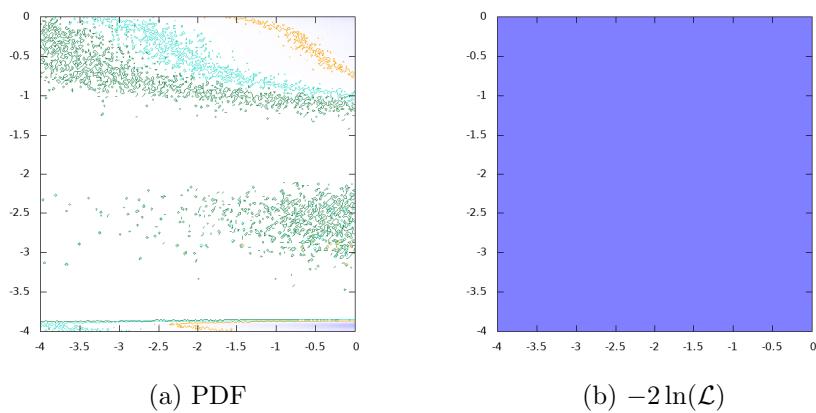


Figure 36:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$

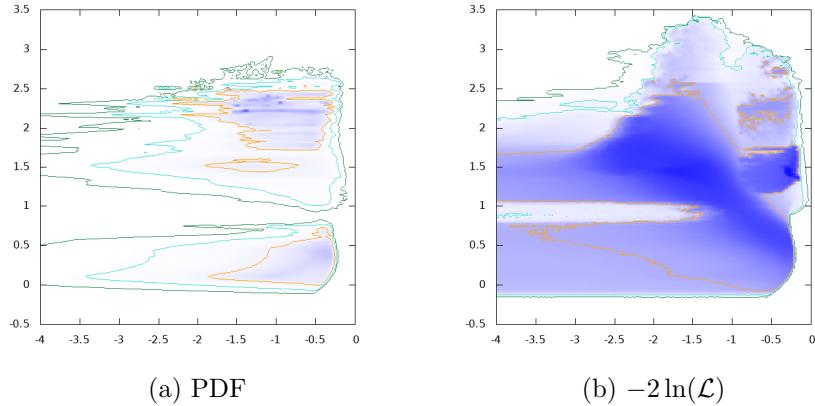


Figure 37:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \tau^+ \tau^-)$

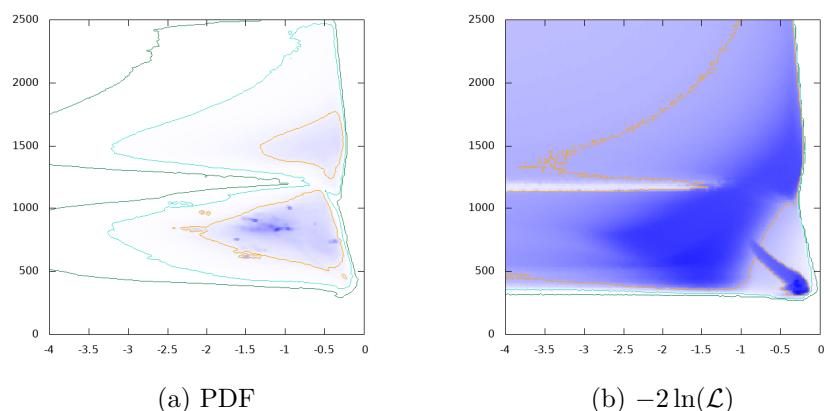


Figure 38:  $m_A$  GeV vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

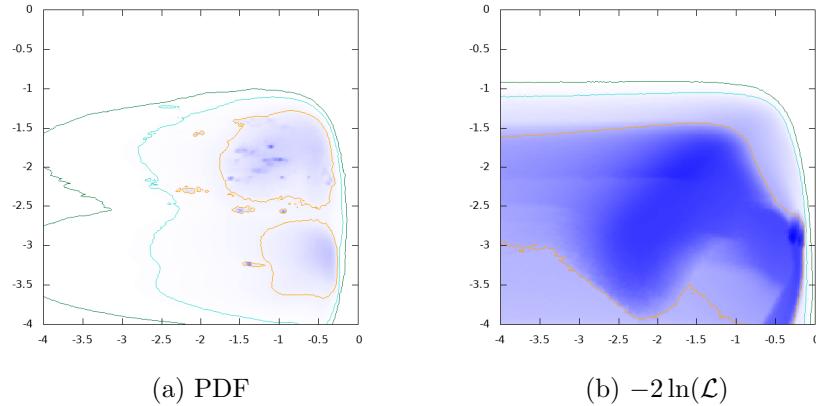


Figure 39:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

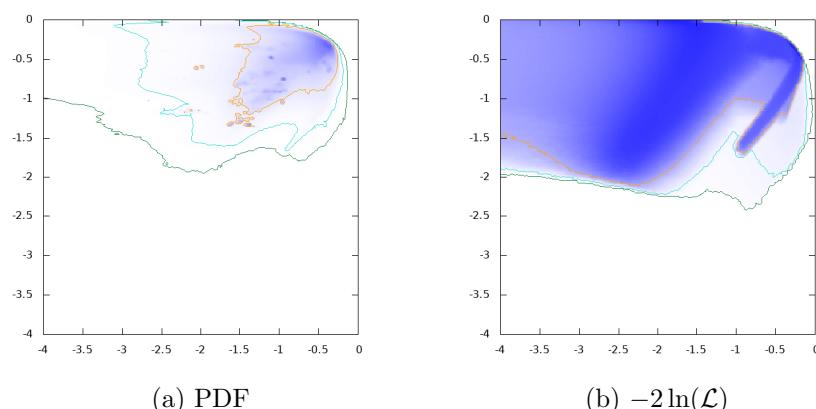


Figure 40:  $\log_{10}\text{BR}(A \rightarrow \mu^+ \mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+ \tau^-)$

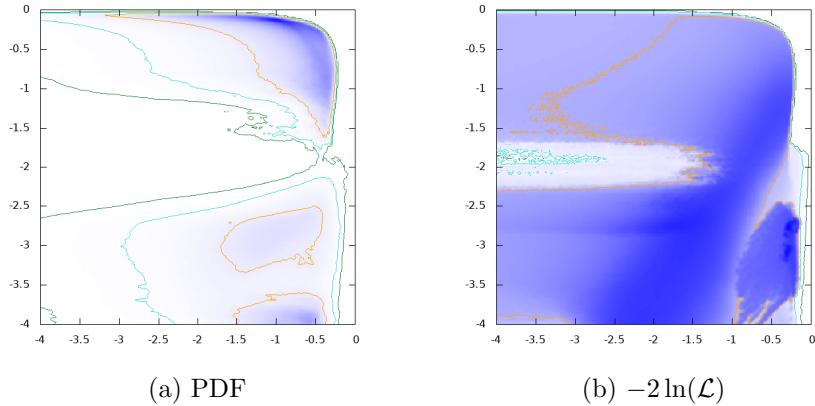


Figure 41:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

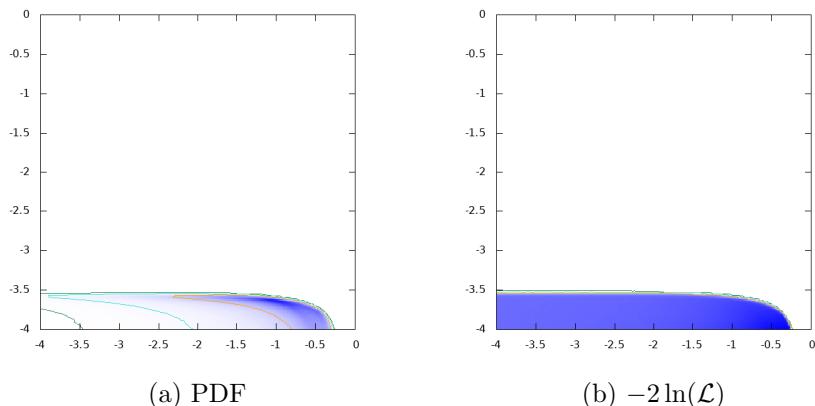


Figure 42:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

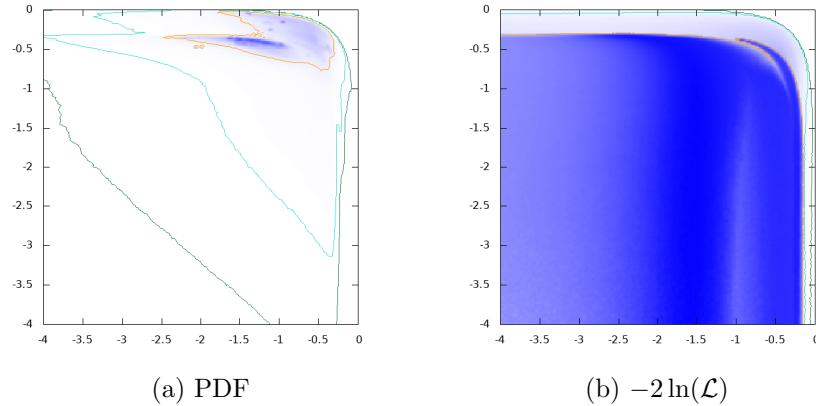


Figure 43:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

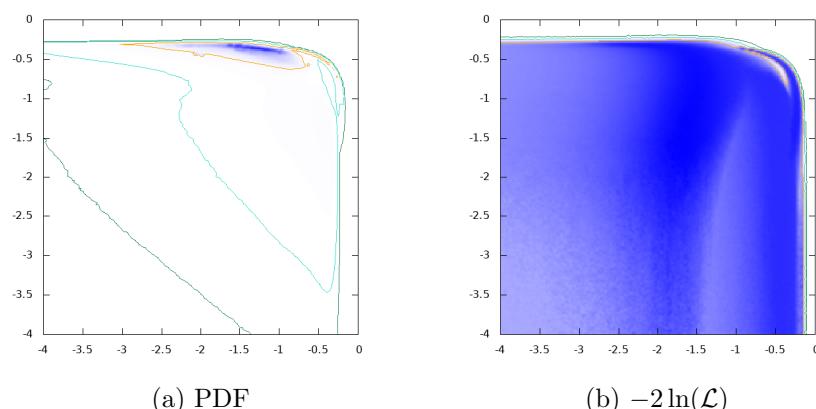


Figure 44:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

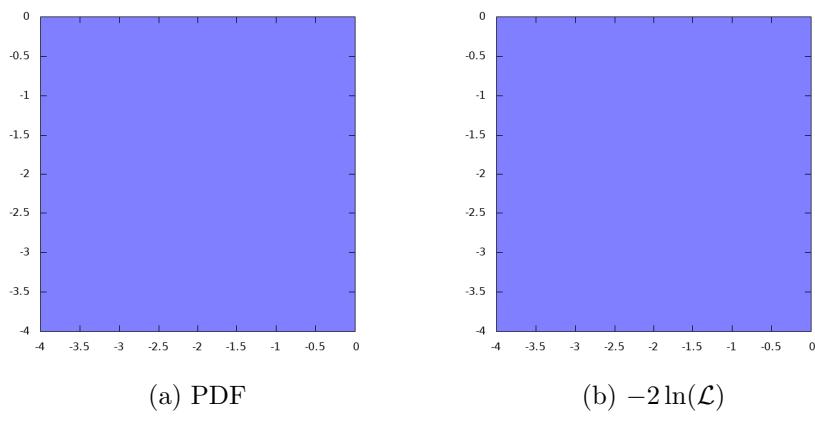
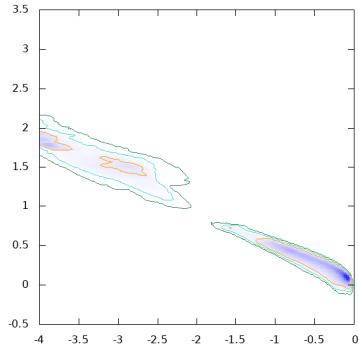
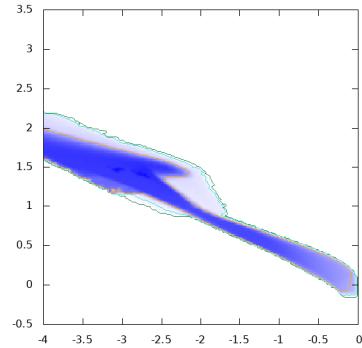


Figure 45:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$

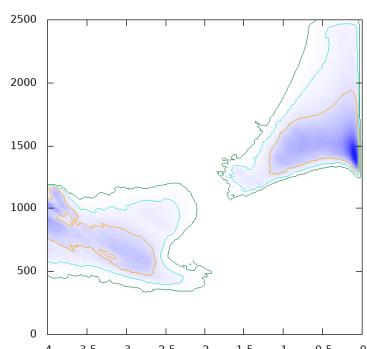


(a) PDF

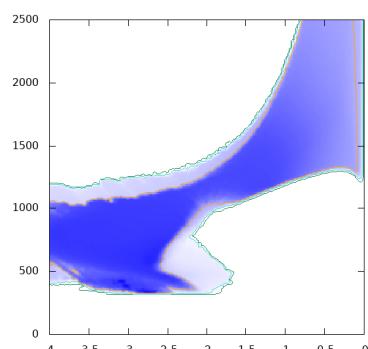


(b)  $-2 \ln(\mathcal{L})$

Figure 46:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \bar{t}t)$



(a) PDF



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

Figure 47:  $m_A$  GeV vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

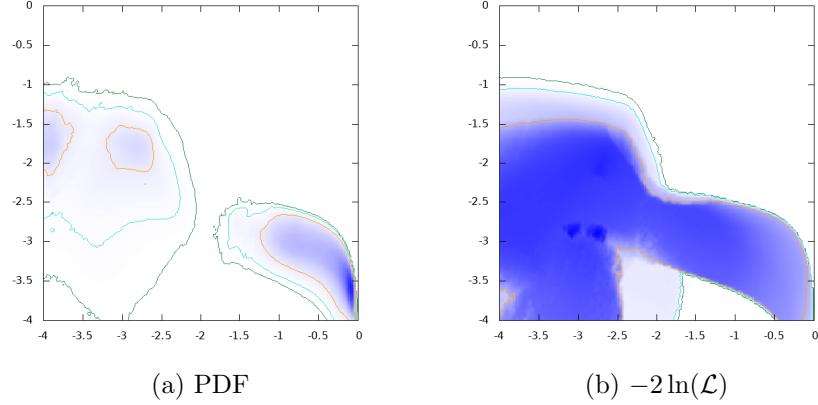


Figure 48:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

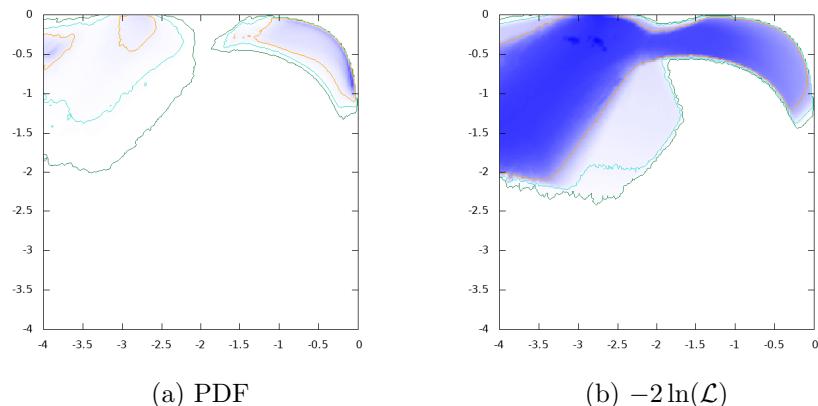


Figure 49:  $\log_{10}\text{BR}(A \rightarrow \mu^+ \mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

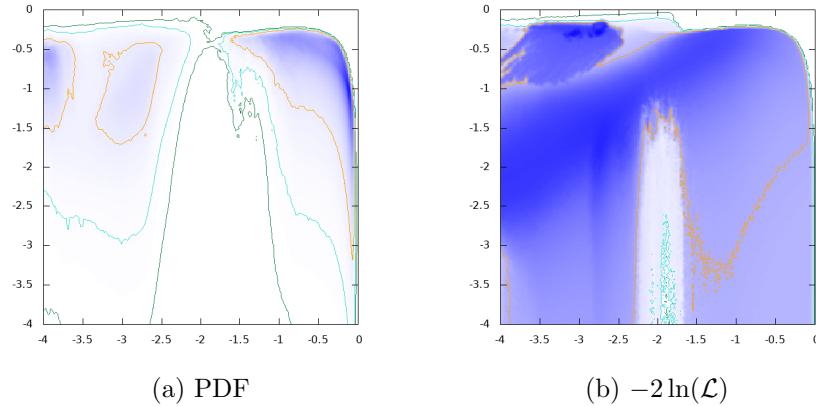


Figure 50:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

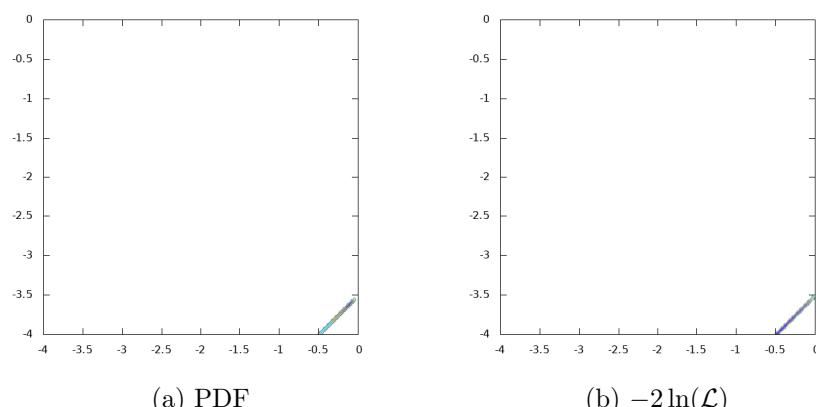


Figure 51:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

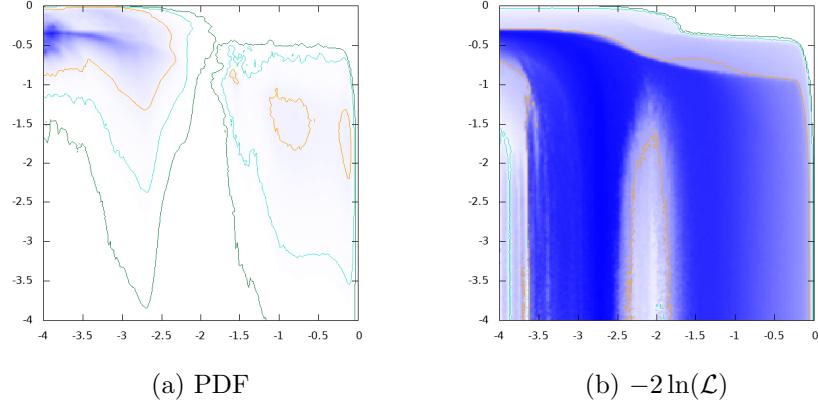


Figure 52:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

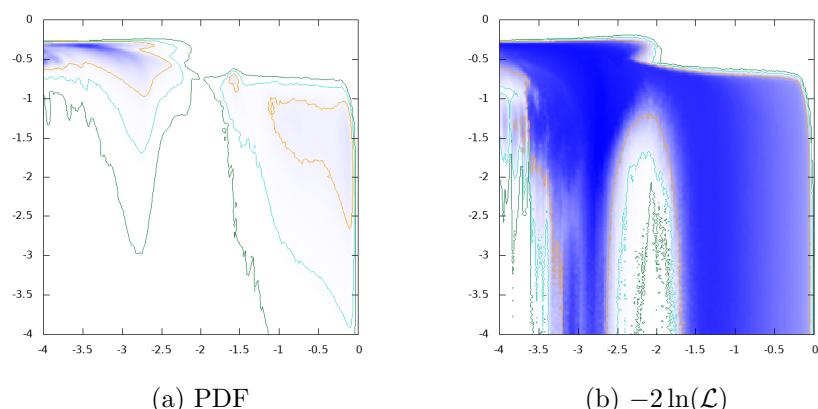


Figure 53:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$

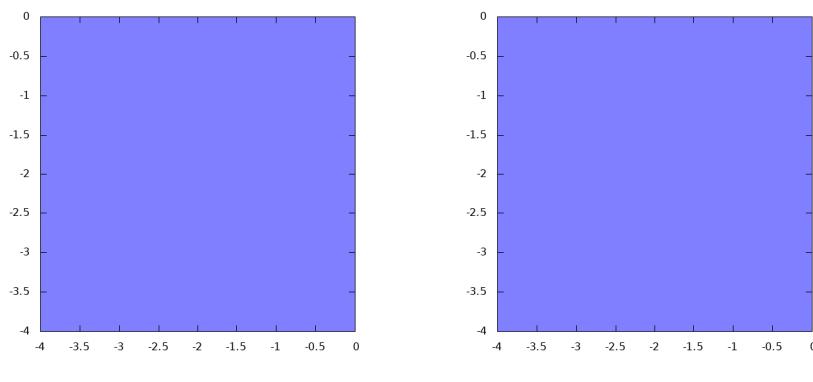


Figure 54:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$

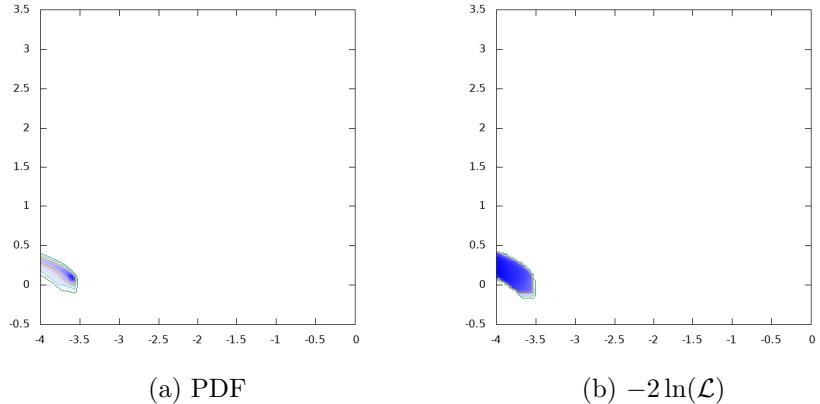


Figure 55:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow \bar{b}b)$

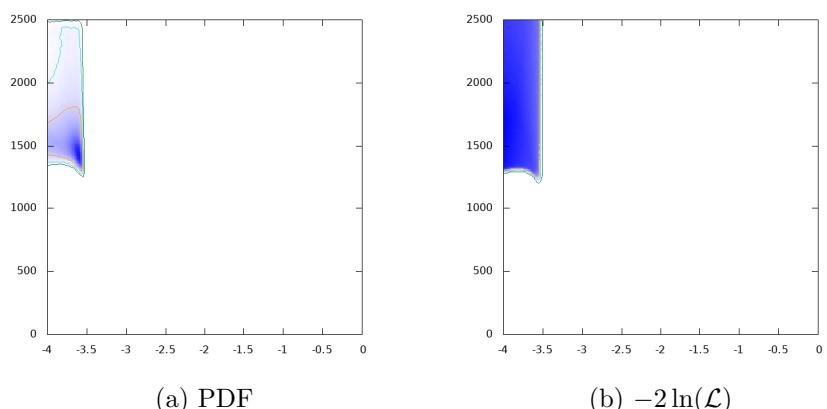


Figure 56:  $m_A$  GeV vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

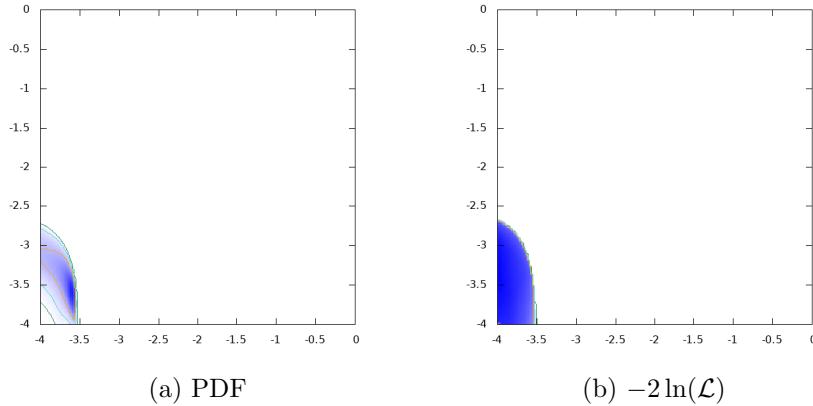


Figure 57:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

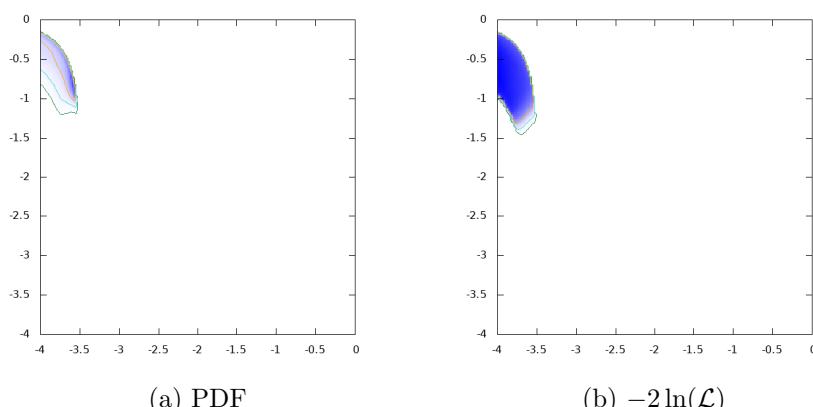


Figure 58:  $\log_{10}\text{BR}(A \rightarrow \mu^+ \mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

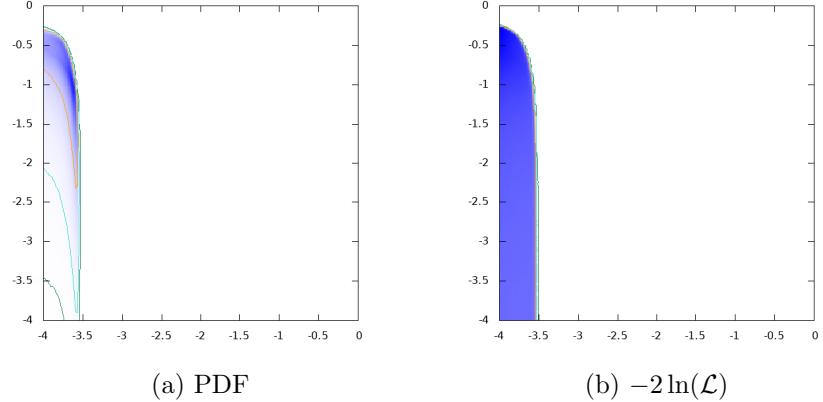


Figure 59:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

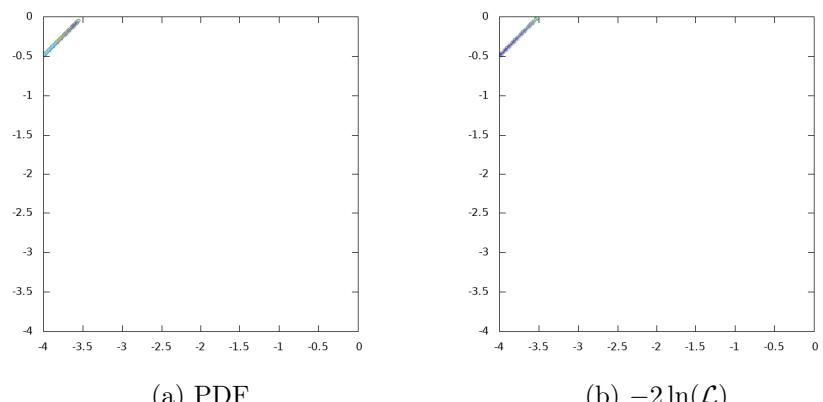


Figure 60:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

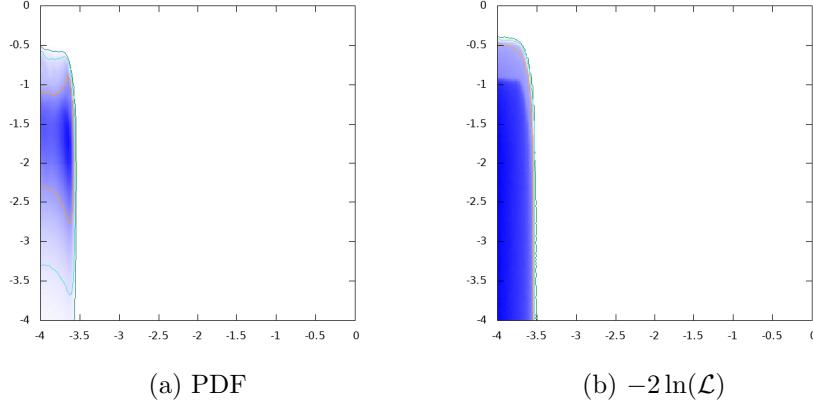


Figure 61:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

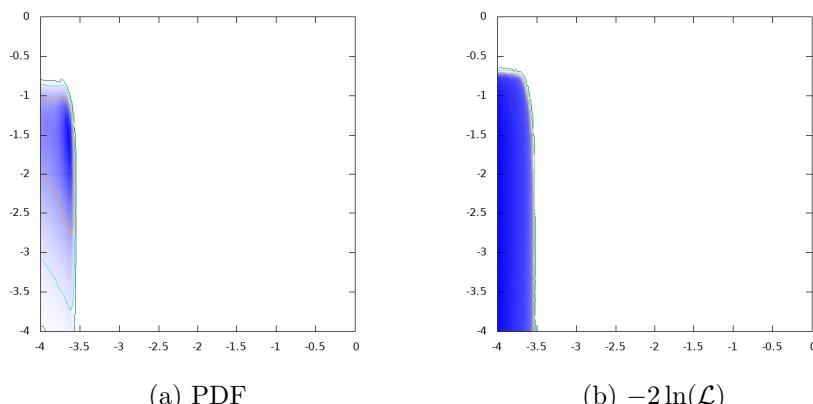


Figure 62:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

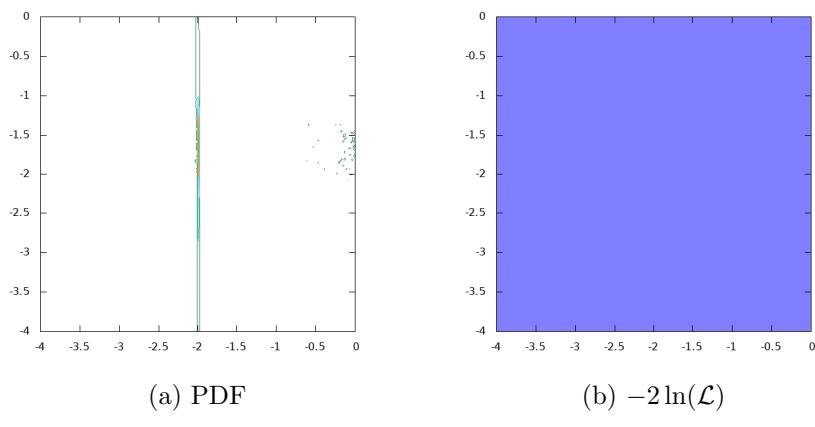


Figure 63:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$

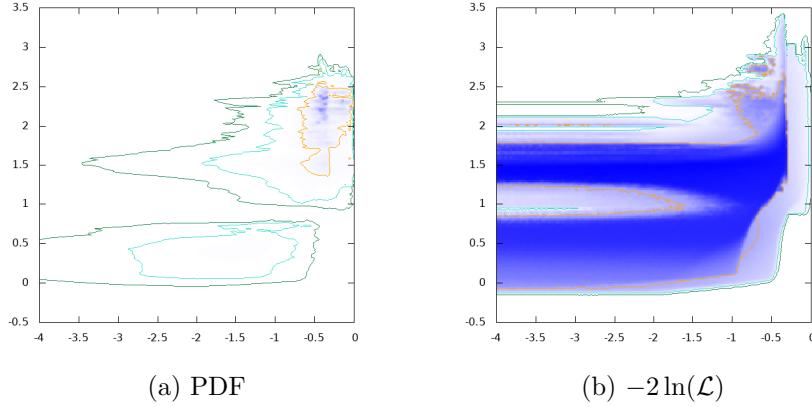


Figure 64:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow HZ)$

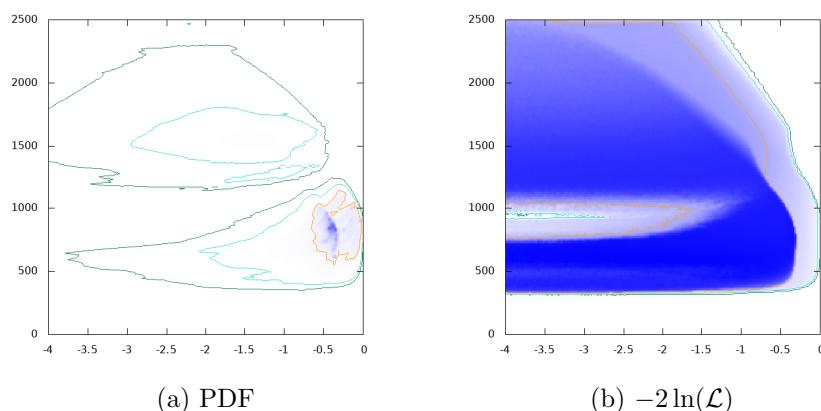


Figure 65:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow HZ)$

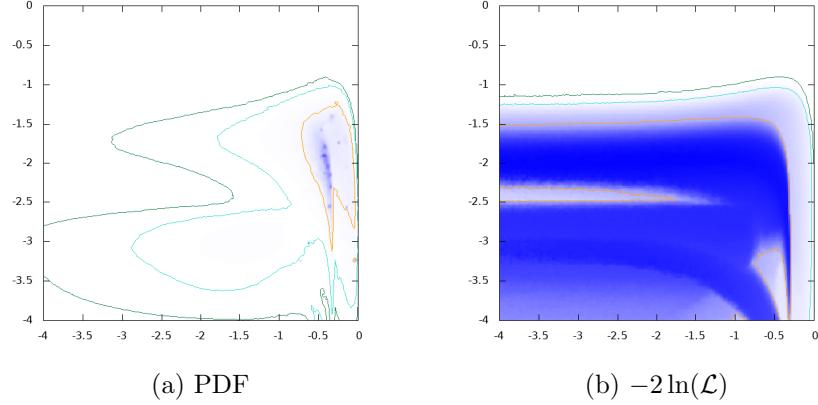


Figure 66:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

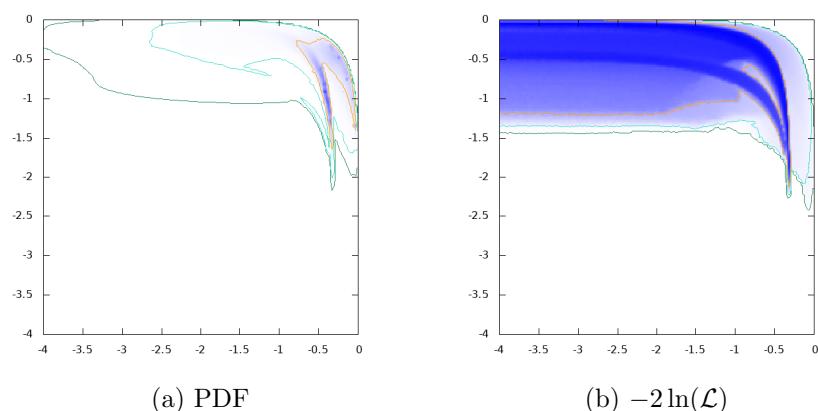


Figure 67:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

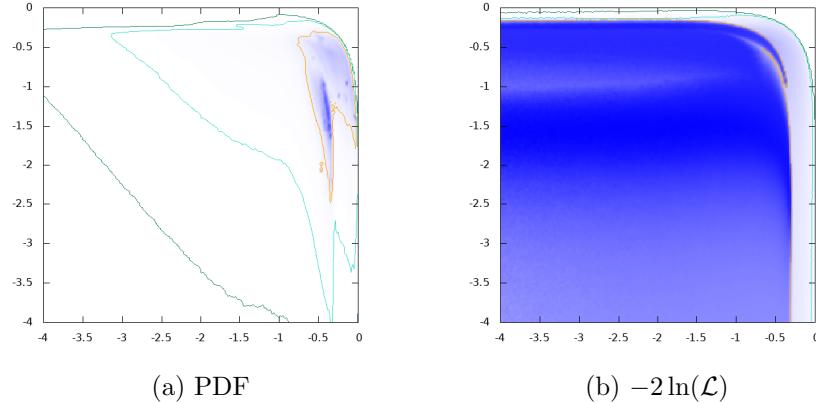


Figure 68:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

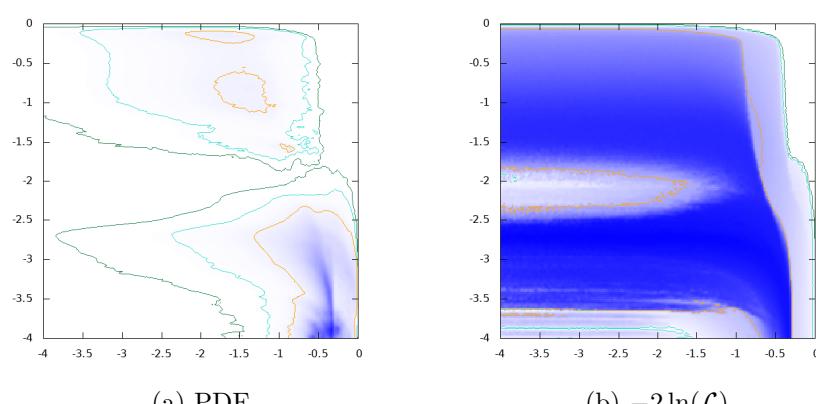


Figure 69:  $\log_{10} \text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10} \text{BR}(A \rightarrow HZ)$

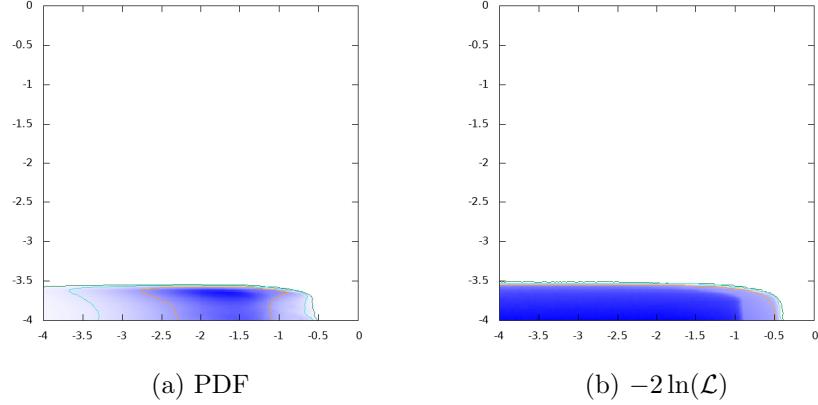


Figure 70:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

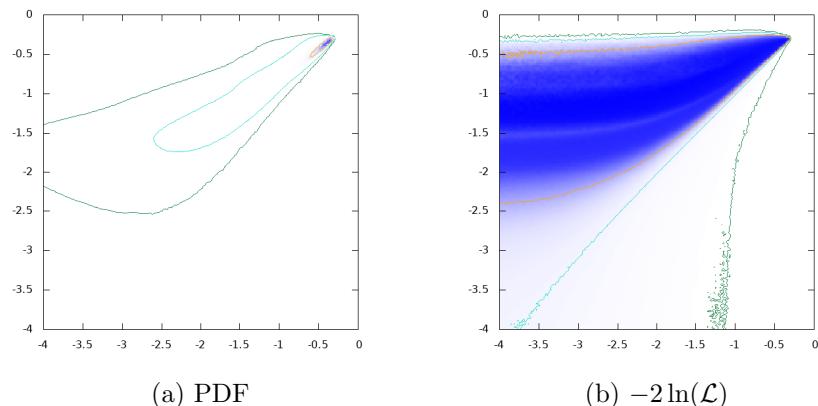


Figure 71:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

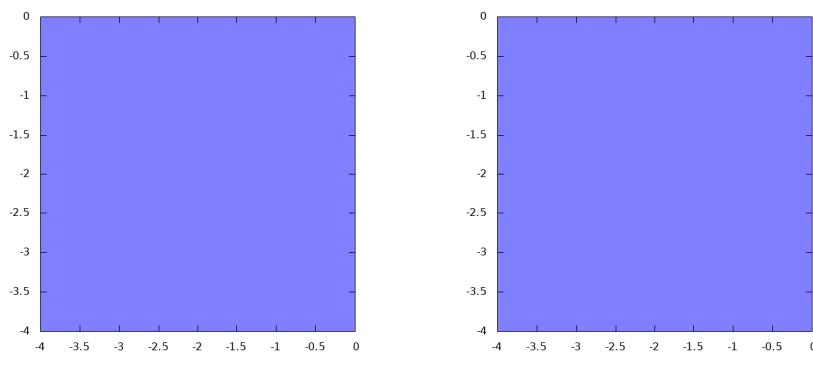


Figure 72:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow HZ)$

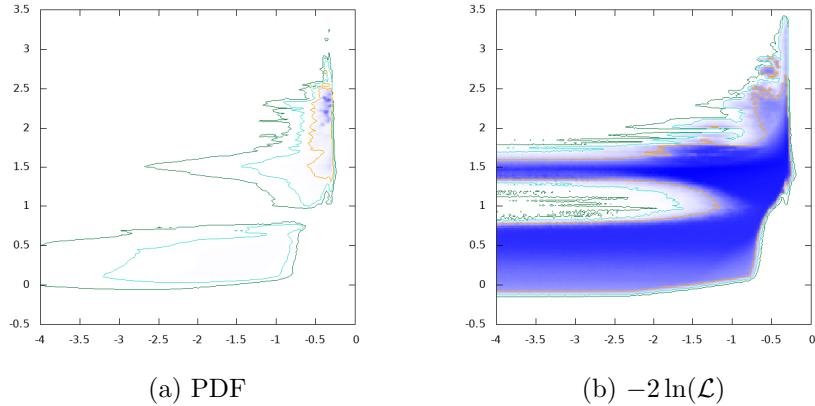


Figure 73:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow H^\pm W^\mp)$

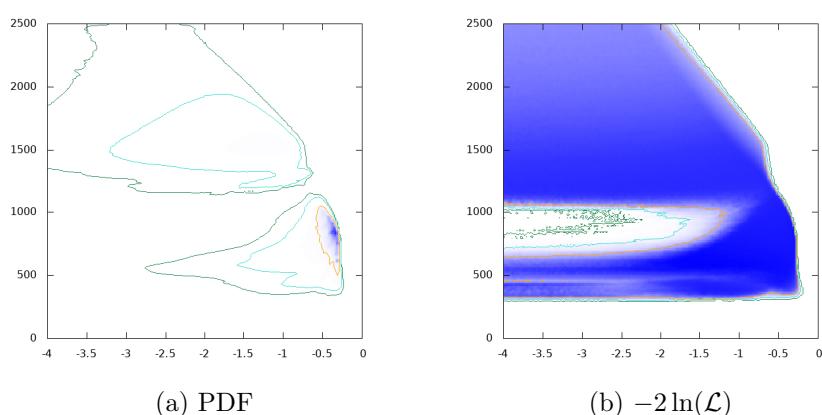


Figure 74:  $m_A$  GeV vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

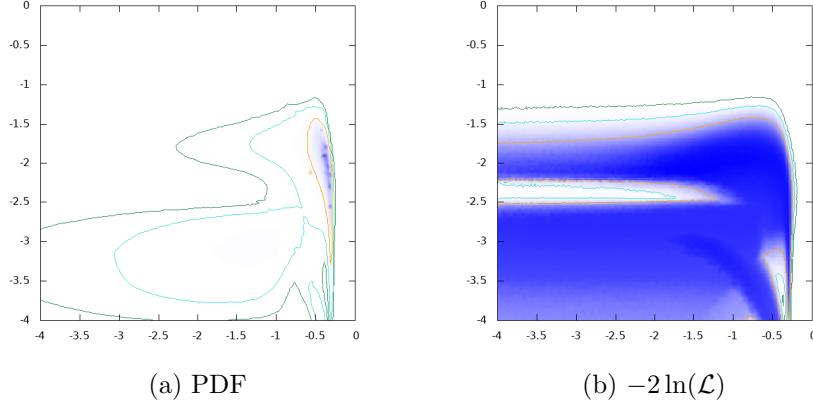


Figure 75:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

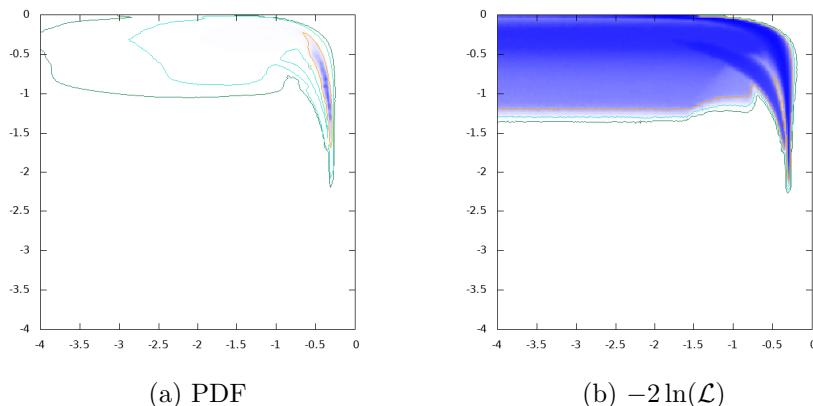


Figure 76:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

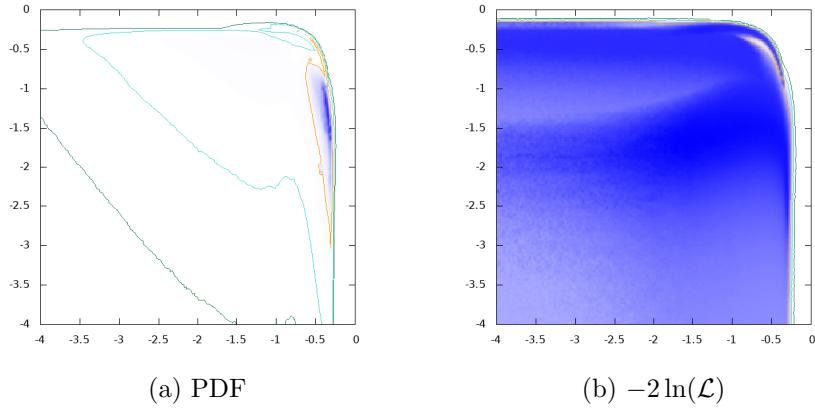


Figure 77:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

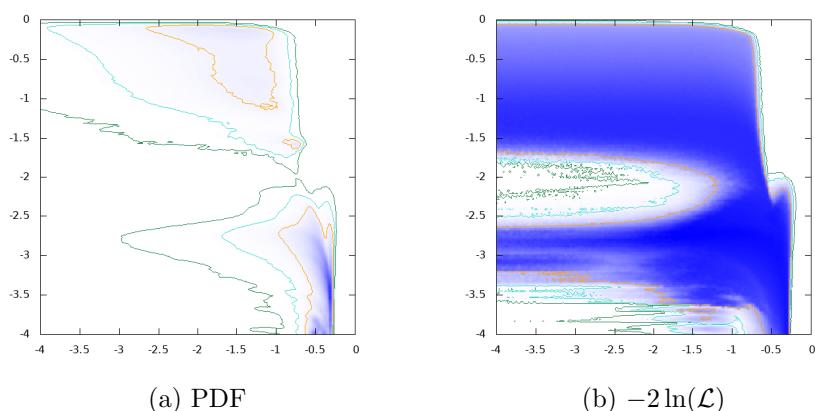


Figure 78:  $\log_{10}\text{BR}(A \rightarrow t\bar{t})$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

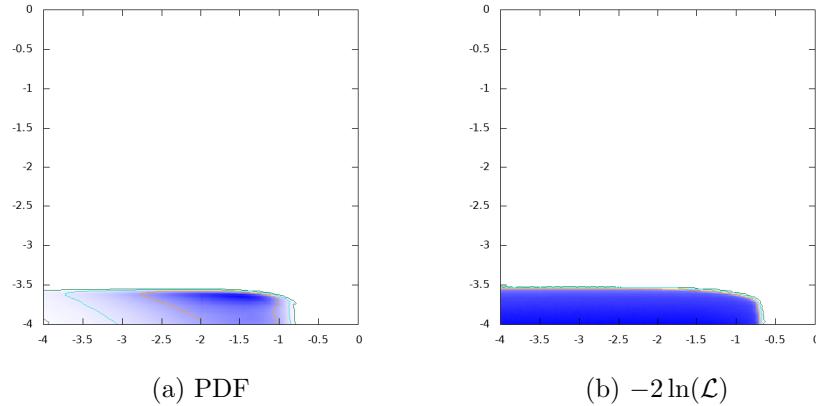


Figure 79:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

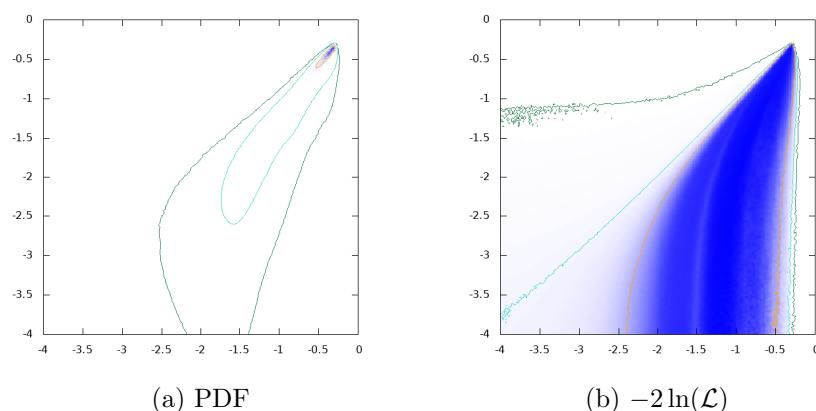


Figure 80:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

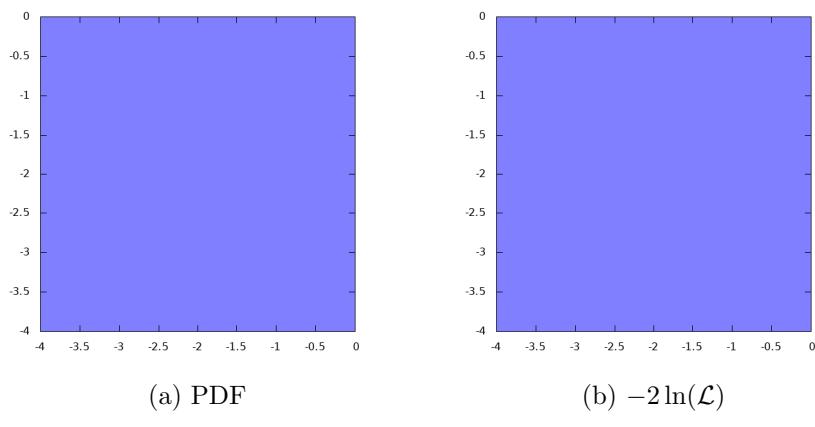
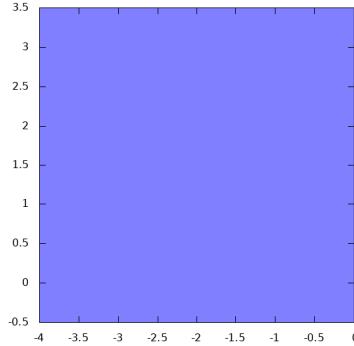
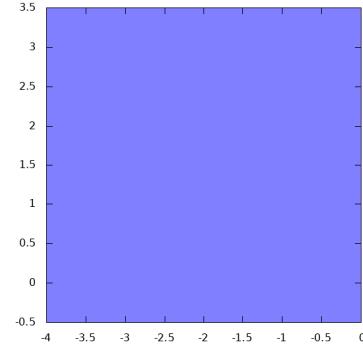


Figure 81:  $\log_{10}\text{BR}(A \rightarrow SS)$  vs.  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$

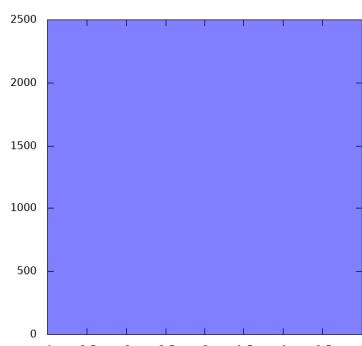


(a) PDF

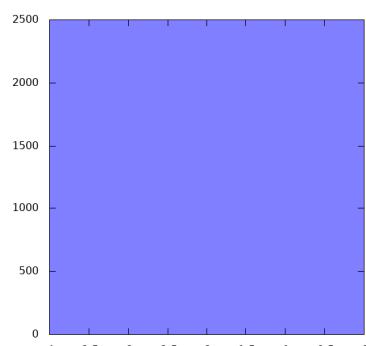


(b)  $-2 \ln(\mathcal{L})$

Figure 82:  $\log_{10} \tan \beta$  vs.  $\log_{10} \text{BR}(A \rightarrow SS)$



(a) PDF



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

Figure 83:  $m_A$  GeV vs.  $\log_{10} \text{BR}(A \rightarrow SS)$

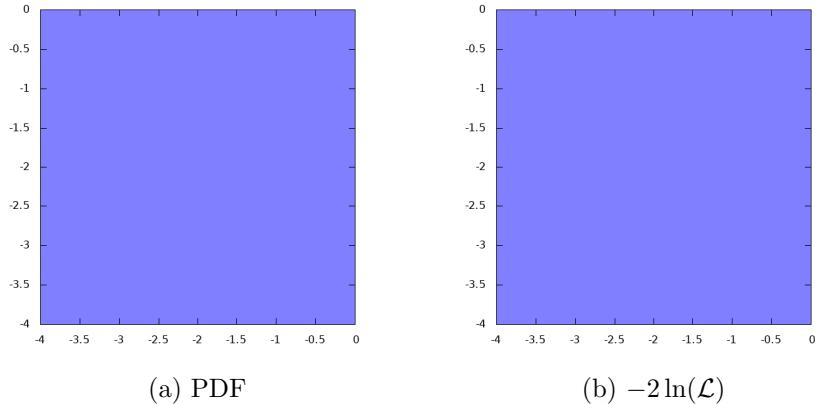


Figure 84:  $\log_{10}\text{BR}(A \rightarrow e^+e^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$

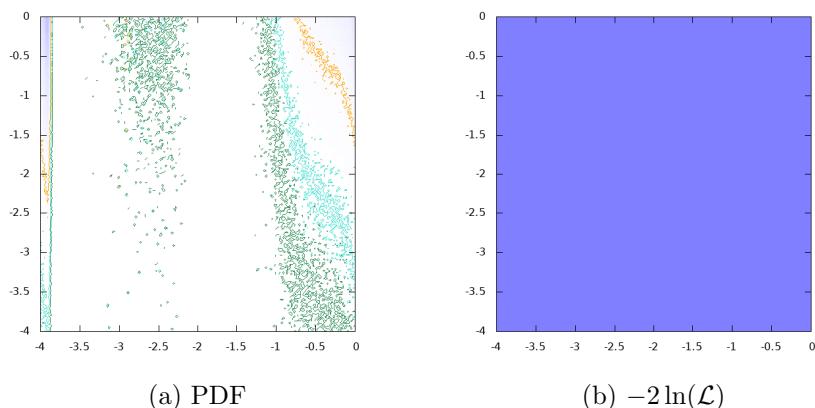
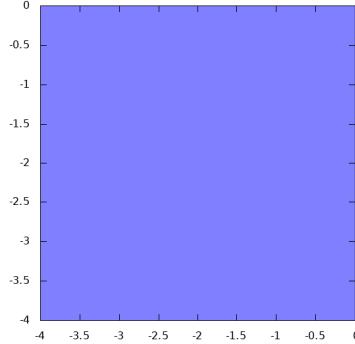
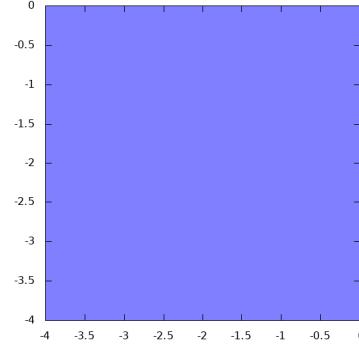


Figure 85:  $\log_{10}\text{BR}(A \rightarrow \mu^+\mu^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$

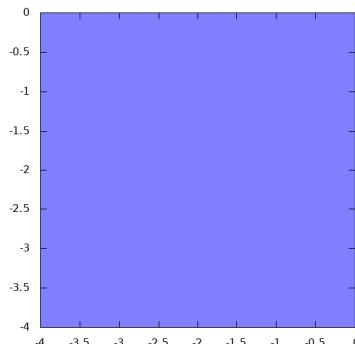


(a) PDF

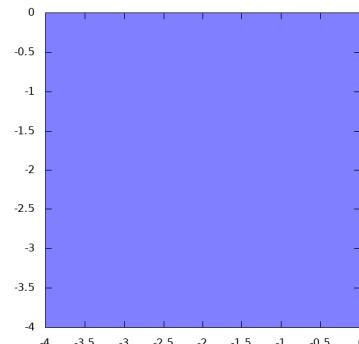


(b)  $-2 \ln(\mathcal{L})$

Figure 86:  $\log_{10}\text{BR}(A \rightarrow \tau^+\tau^-)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$



(a) PDF



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

Figure 87:  $\log_{10}\text{BR}(A \rightarrow \bar{t}t)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$

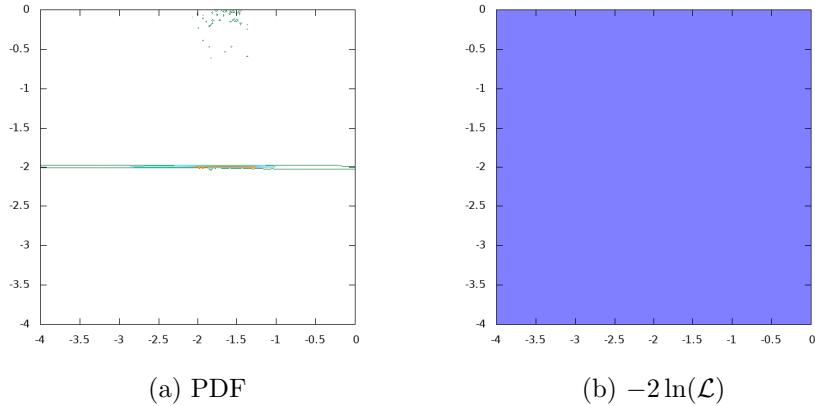


Figure 88:  $\log_{10}\text{BR}(A \rightarrow \bar{b}b)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$

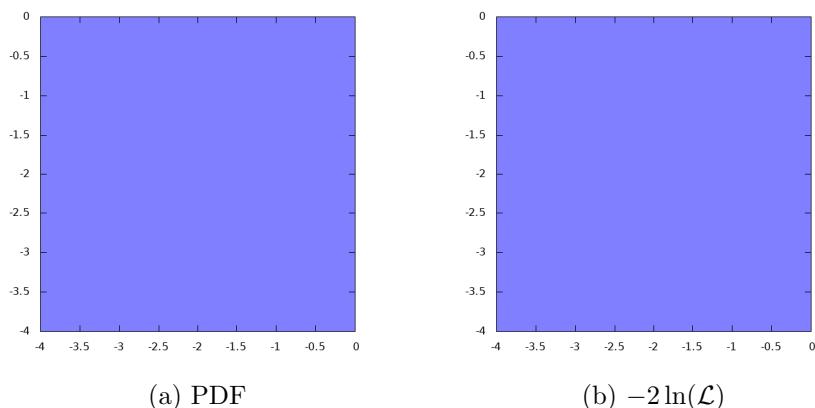


Figure 89:  $\log_{10}\text{BR}(A \rightarrow HZ)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$

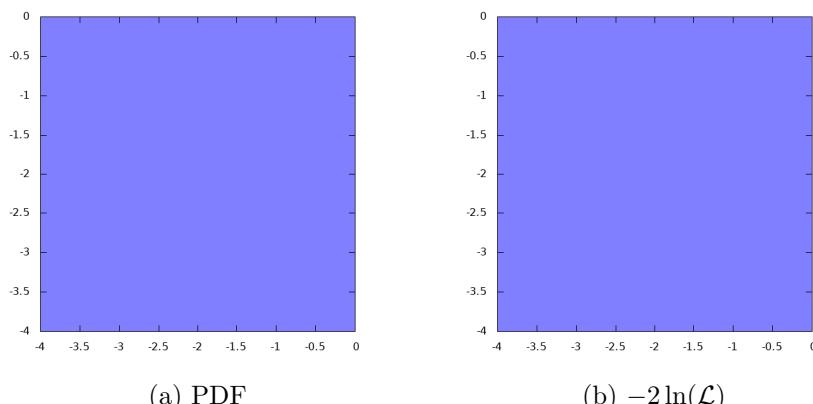


Figure 90:  $\log_{10}\text{BR}(A \rightarrow H^\pm W^\mp)$  vs.  $\log_{10}\text{BR}(A \rightarrow SS)$