

# Topology Analysis <sup>\*</sup>

(v1.6.0)

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November 28, 2018

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<sup>\*</sup>This package is implemented with reference to a program called TOPO, which is developed by Prof. Shuxian Du from Zhengzhou University in China and has been widely used by people in BESIII collaboration. Several years ago, when I was a PhD student working on BESIII experiment, I learned the idea of topology analysis and a lot of programming techniques from the TOPO program. So, I really appreciate Prof. Du's original work very much. To meet my own needs and to practice developing analysis tools with C++, ROOT and LaTeX, I wrote the package from scratch. At that time, the package functioned well but was relatively simple. At the end of last year (2017), my co-supervisor, Prof. Chengping Shen reminded me that it could be a useful tool for Belle II experiment as well. So, I revised and extended it, making it more well-rounded and suitable for Belle II experiment. Here, I would like to thank Prof. Du for his original work, Prof. Shen for his suggestion and encouragement, and Wencheng Yan, Sen Jia, Yubo Li, Suxian Li, Longke Li, Guanda Gong, Junhao Yin, Xiaoping Qin, Xiqing Hao, HongPeng Wang, JiaWei Zhang for their efforts in helping me test the program.

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index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
9	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\pi^-\bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \bar{D}^{*-} \rightarrow \pi^0 D^-,$ $D^{*+} \rightarrow \pi^+ D^0, D^- \rightarrow \pi^-\omega K^0, D^0 \rightarrow K_L\omega, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_S,$ $\omega \rightarrow \pi^0\pi^+\pi^-, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	8	8	1	0	1	9
10	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^0 D^- D^{*+}, \bar{B}^0 \rightarrow D^{*+} D_s^{*-}, K^0 \rightarrow K_S,$ $D^- \rightarrow \pi^-\pi^- K^+, D^{*+} \rightarrow \pi^0 D^+, D^{*+} \rightarrow \pi^0 D^+, D_s^{*-} \rightarrow D_s^-\gamma, K_S \rightarrow \pi^+\pi^-,$ $D^+ \rightarrow \mu^+\nu_\mu \bar{K}^0, D^+ \rightarrow \pi^+\eta', D_s^- \rightarrow K^* K^{*-}, \bar{K}^0 \rightarrow K_L, \eta' \rightarrow \rho^0\gamma,$ $K^* \rightarrow \pi^- K^+, K^{*-} \rightarrow \pi^0 K^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^+ K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	9	9	1	0	1	10
11	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu \bar{D}^{*-}, \bar{B}^0 \rightarrow \rho^0 K^0 K^{*-} D^+, D^{*-} \rightarrow \pi^- \bar{D}^0,$ $\rho^0 \rightarrow \pi^+\pi^-, K^0 \rightarrow K_L, K^{*-} \rightarrow \pi^0 K^-, D^+ \rightarrow \mu^+\nu_\mu \bar{K}^0, \bar{D}^0 \rightarrow \rho^- K^{*+},$ $\bar{K}^0 \rightarrow K_L, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^0 K^+$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	10	10	1	0	1	11
12	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^- K^+ J/\psi, \bar{B}^0 \rightarrow D^+ D_s^{*-}, \rho^- \rightarrow \pi^0\pi^-,$ $J/\psi \rightarrow e^+e^-, D^+ \rightarrow \pi^0\pi^+ K_S, D_s^{*-} \rightarrow D_s^-\gamma, K_S \rightarrow \pi^0\pi^0, D_s^- \rightarrow \tau^- \bar{\nu}_\tau,$ $\tau^- \rightarrow \mu^- \bar{\nu}_\mu \nu_\tau$ $(e^+e^- \rightarrow e^+e^- \mu^- \bar{\nu}_\mu \nu_\tau \bar{\nu}_\tau \pi^+\pi^- K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	11	11	1	0	1	12
13	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^- K^0 D^0 \bar{D}^0, \bar{B}^0 \rightarrow \pi^0\pi^+\rho^-\rho^- D^+, K^0 \rightarrow K_L,$ $D^0 \rightarrow K_S\eta', \bar{D}^0 \rightarrow \rho^- K^{*+}, \rho^- \rightarrow \pi^0\pi^-, \rho^- \rightarrow \pi^0\pi^-, D^+ \rightarrow \mu^+\nu_\mu \bar{K}^0,$ $K_L \rightarrow \pi^0\pi^0\pi^0, K_S \rightarrow \pi^+\pi^-, \eta' \rightarrow \pi^+\pi^-\eta, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^0 K^+,$ $\bar{K}^0 \rightarrow K_L, \eta \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	12	12	1	0	1	13
14	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\eta \bar{D}^{*-}, \bar{B}^0 \rightarrow K^0 K^{*-} D^{*+}, \eta \rightarrow \pi^0\pi^0\pi^0,$ $\bar{D}^{*-} \rightarrow \pi^0 D^-, K^0 \rightarrow K_S, K^{*-} \rightarrow \pi^0 K^-, D^{*+} \rightarrow \pi^+ D^0, D^- \rightarrow \mu^- \bar{\nu}_\mu K^0,$ $K_S \rightarrow \pi^+\pi^-, D^0 \rightarrow \pi^0\rho^0, K^0 \rightarrow K_L, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	13	13	1	0	1	14
15	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^+ D^-, \bar{B}^0 \rightarrow \pi^- K^+ K^- D^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow K_S a_1^-, D^{*+} \rightarrow \pi^+ D^0, K_S \rightarrow \pi^0\pi^0, a_1^- \rightarrow \pi^0\rho^-, D^0 \rightarrow \pi^0\pi^+ K^-,$ $\rho^- \rightarrow \pi^0\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^-\pi^- K^+ K^- K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	14	14	1	0	1	15
16	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^+\eta \bar{D}^{*-}, \bar{B}^0 \rightarrow e^- \bar{\nu}_e D^{*+}, \eta \rightarrow \pi^0\pi^0\pi^0,$ $\bar{D}^{*-} \rightarrow \pi^0 D^-, D^{*+} \rightarrow \pi^0 D^+, D^- \rightarrow \pi^+\pi^-\pi^-\pi^- K^+, D^+ \rightarrow \mu^+\nu_\mu \bar{K}^*, \bar{K}^* \rightarrow \pi^+ K^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+\nu_\mu \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^- K^+ K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	15	15	1	0	1	16
17	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^+ K^{*-} D^0 \bar{D}^{*0}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0,$ $K^{*-} \rightarrow \pi^- \bar{K}^0, D^0 \rightarrow K_L\pi^+\pi^-, \bar{D}^{*0} \rightarrow \pi^0 \bar{D}^0, \bar{D}^0 \rightarrow \mu^- \bar{\nu}_\mu K^+, \bar{K}^0 \rightarrow K_S,$ $\bar{D}^0 \rightarrow \pi^+\pi^- K_S K_S, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^0\pi^0, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+\nu_e \mu^- \bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	16	16	1	0	1	17

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
18	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^*D^-D^{*+}, \bar{B}^0 \rightarrow \pi^0\eta\bar{K}^0K^-D_s^+, K^* \rightarrow \pi^0K^0,$ $D^- \rightarrow \pi^-\pi^-K^+, D^{*+} \rightarrow \pi^+D^0, \eta \rightarrow \gamma\gamma, \bar{K}^0 \rightarrow K_L, D_s^+ \rightarrow \mu^+\nu_\mu\phi,$ $K^0 \rightarrow K_S, D^0 \rightarrow \pi^0\pi^+K^{*-}, \phi \rightarrow K^+K^-, K_S \rightarrow \pi^0\pi^0, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $\bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L K_L \pi^+\pi^-\pi^-\pi^-K^+K^+K^-K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	17	17	1	0	1	18
19	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}D_s^{*+}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, D^{*-} \rightarrow \pi^-\bar{D}^0,$ $D_s^{*+} \rightarrow D_s^+\gamma, D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow \pi^0\pi^+\pi^-K_S, D_s^+ \rightarrow \rho^+\eta, D^0 \rightarrow \pi^+\eta K^-,$ $K_S \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \pi^0\pi^0\pi^0, \eta \rightarrow \pi^0\pi^0\pi^0$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	18	18	1	0	1	19
20	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D_2^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^+\pi^-\rho^-D^{*0}, D_2^{*-} \rightarrow \pi^-\bar{D}^{*0},$ $\rho^- \rightarrow \pi^0\pi^-, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \bar{D}^0 \rightarrow K^+a_1^-, \bar{D}^0 \rightarrow \pi^0K_L\pi^+\pi^-,$ $a_1^- \rightarrow \rho^0\pi^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	19	19	1	0	1	20
21	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \bar{B}^0 \rightarrow \pi^0\bar{K}^*K^+K^-, D^{*+} \rightarrow \pi^+D^0,$ $\bar{K}^* \rightarrow \pi^0\bar{K}^0, D^0 \rightarrow \pi^0K_L, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu K_L K_L \pi^+K^+K^- \gamma\gamma\gamma\gamma\gamma)$	20	20	1	0	1	21
22	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^+\omega K^0K^{*-}D^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, \omega \rightarrow \pi^0\pi^+\pi^-,$ $K^0 \rightarrow K_S, K^{*-} \rightarrow \pi^0K^-, \bar{D}^{*-} \rightarrow \pi^0D^-, D^{*+} \rightarrow \pi^0D^+, K_S \rightarrow \pi^+\pi^-,$ $D^- \rightarrow \pi^-\pi^-K^+, D^+ \rightarrow K_L a_1^+, K_L \rightarrow \mu^+\nu_\mu\pi^-, a_1^+ \rightarrow \pi^+f_0(600)$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-f_0(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	21	21	1	0	1	22
23	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}D_s^{*+}, \bar{B}^0 \rightarrow \pi^0\pi^0\rho^-\eta\omega D^{*+}, D^{*-} \rightarrow \pi^0D^-,$ $D_s^{*+} \rightarrow D_s^+\gamma, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^0\pi^0, \omega \rightarrow \pi^0\pi^+\pi^-, D^{*+} \rightarrow \pi^+D^0,$ $D^- \rightarrow \pi^-K_S, D_s^+ \rightarrow \rho^+\eta', D^0 \rightarrow K^-a_1^+, K_S \rightarrow \pi^0\pi^0, \rho^+ \rightarrow \pi^0\pi^+,$ $\eta' \rightarrow \rho^0\gamma, a_1^+ \rightarrow \pi^+\pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^- \gamma)$	22	22	1	0	1	23
24	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^*D^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^+\pi^-\rho^-\omega K^{*+}, K^* \rightarrow \pi^-K^+,$ $D^+ \rightarrow \pi^0K_L\pi^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \rho^- \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, K^{*+} \rightarrow \pi^0K^+,$ $\bar{D}^0 \rightarrow K^+a_1^-, a_1^- \rightarrow \rho^0\pi^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	23	23	1	0	1	24
25	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^0\pi^-\rho^+\rho^+\eta D^-, \bar{B}^0 \rightarrow \pi^+\bar{K}^*D^{*-}D^0, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^+ \rightarrow \pi^0\pi^+, \rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow \pi^-\pi^-K^+, \bar{K}^* \rightarrow \pi^+K^-,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^0 \rightarrow e^+\nu_e\pi^0K^-, \pi^0 \rightarrow e^+e^-, \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu K^{*+}, K^{*+} \rightarrow \pi^+K^0,$ $K^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^+e^-\nu_e\mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	24	24	1	0	1	25
26	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^0\bar{D}^0D^{*0}, \bar{B}^0 \rightarrow \pi^0\pi^-\omega D^+, K^0 \rightarrow K_L,$ $\bar{D}^0 \rightarrow K^+a_1^-, D^{*0} \rightarrow D^0\gamma, \omega \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow \pi^+K^0\bar{K}^*, a_1^- \rightarrow \rho^0\pi^-,$ $D^0 \rightarrow e^+\nu_e K^{*-}, K^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+K^-, \rho^0 \rightarrow \pi^+\pi^-, K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow e^+\nu_e K_L K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	25	25	1	0	1	26



index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
37	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D^-, \bar{B}^0 \rightarrow \pi^0\pi^- D^{*+}, D^- \rightarrow K_L a_1^-,$ $D^{*+} \rightarrow \pi^+ D^0, K_L \rightarrow \pi^0\pi^0\pi^0, a_1^- \rightarrow \pi^0\rho^-, D^0 \rightarrow \pi^0\pi^0\pi^0\pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	36	36	1	0	1	37
38	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \eta D^+ p\Delta^{++}, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^-\rho^- D^+, \eta \rightarrow \gamma\gamma,$ $D^+ \rightarrow \pi^+ K_S, \bar{\Delta}^{++} \rightarrow \pi^-\bar{p}, \rho^- \rightarrow \pi^0\pi^-, D^+ \rightarrow \pi^0 K_L\pi^+, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\bar{p}\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	37	37	1	0	1	38
39	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \pi^- D^+, \bar{B}^0 \rightarrow \pi^0\pi^0 K^* K^{*-} D^+, D^+ \rightarrow e^+\nu_e \bar{K}^*,$ $K^* \rightarrow \pi^0 K^0, K^{*-} \rightarrow \pi^- \bar{K}^0, D^+ \rightarrow \mu^+\nu_\mu\pi^0, \bar{K}^* \rightarrow \pi^+ K^-, K^0 \rightarrow K_L,$ $\bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+\nu_e\mu^+\nu_\mu K_L\pi^+\pi^-\pi^- K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	38	38	1	0	1	39
40	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \rho^- D^{*+}\gamma, \rho^0 \rightarrow \pi^+\pi^-,$ $\bar{D}^{*-} \rightarrow \pi^0 D^-, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^+ D^0, D^- \rightarrow \rho^- K^*, D^0 \rightarrow \rho^0\pi^+ K^-,$ $\rho^- \rightarrow \pi^0\pi^-, K^* \rightarrow \pi^- K^+, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	39	39	1	0	1	40
41	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu\pi^0\pi^0 D^{*+}, D^{*+} \rightarrow \pi^0 D^+,$ $D^{*+} \rightarrow \pi^+ D^0, D^+ \rightarrow \pi^+ K^- K^{*+}, D^0 \rightarrow \pi^0\pi^+ K^-, K^{*+} \rightarrow \pi^0 K^+$ $(e^+e^- \rightarrow \mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+ K^+ K^- K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	40	40	1	0	1	41
42	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^-\omega D^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0,$ $\omega \rightarrow \pi^0\pi^+\pi^-, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow \pi^0\pi^- K^+, D^+ \rightarrow \pi^+\pi^+ K^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	41	41	1	0	1	42
43	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \pi^+ K^- \eta_c(2S), \bar{B}^0 \rightarrow \pi^0\pi^+\pi^- D^+ \Sigma^- \bar{\Sigma}^0, \eta_c(2S) \rightarrow \pi^0\rho^0\pi^+\pi^-\pi^-\rho^+\eta,$ $D^+ \rightarrow \mu^+\nu_\mu \bar{K}^*, \Sigma^- \rightarrow \pi^- n, \bar{\Sigma}^0 \rightarrow \bar{\Lambda}\gamma, \rho^0 \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+,$ $\eta \rightarrow \gamma\gamma, \bar{K}^* \rightarrow \pi^+ K^-, \bar{\Lambda} \rightarrow \pi^+\bar{p}$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^- K^- n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	42	42	1	0	1	43
44	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \eta D^- D_s^+, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \eta \rightarrow \pi^0\pi^0\pi^0,$ $D^- \rightarrow \rho^- K^*, D_s^+ \rightarrow \pi^+\eta', D^{*+} \rightarrow \pi^+ D^0, \rho^- \rightarrow \pi^0\pi^-, K^* \rightarrow \pi^0 K^0,$ $\eta' \rightarrow \pi^0\pi^0\eta, D^0 \rightarrow \pi^0\pi^+ K^-, K^0 \rightarrow K_S, \eta \rightarrow \gamma\gamma, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^- K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	43	43	1	0	1	44
45	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \omega K^+ \bar{D}^{*-}, \bar{B}^0 \rightarrow D^{*+} D_s^-, \omega \rightarrow \pi^0\pi^+\pi^-,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*+} \rightarrow \pi^0 D^+, D_s^- \rightarrow \pi^- f_0(980), \bar{D}^0 \rightarrow \pi^- \omega K^+, D^+ \rightarrow K_S K^{*+},$ $f_0(980) \rightarrow \pi^+\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, K_S \rightarrow \pi^+\pi^-, K^{*+} \rightarrow \pi^+ K^0, K^0 \rightarrow K_S,$ $K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	44	44	1	0	1	45
46	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, \bar{B}^0 \rightarrow \eta \bar{D}^{*-} D_s^+, \bar{B}^0 \rightarrow \pi^0\pi^-\rho^+ \bar{K}^0 K^+ D^-, \eta \rightarrow \gamma\gamma,$ $\bar{D}^{*-} \rightarrow \pi^0 D^-, D_s^+ \rightarrow \mu^+\nu_\mu\eta, \rho^+ \rightarrow \pi^0\pi^+, \bar{K}^0 \rightarrow K_S, D^- \rightarrow K_S K^{*-},$ $D^- \rightarrow \pi^-\pi^- K^+, \eta \rightarrow \pi^0\pi^0\pi^0, K_S \rightarrow \pi^0\pi^0, K_S \rightarrow \pi^+\pi^-, K^{*-} \rightarrow \pi^- \bar{K}^0,$ $\pi^0 \rightarrow e^+e^-, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^- K^+ K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	45	45	1	0	1	46

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
47	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\pi^-\rho^-\eta\eta\bar{K}^0K^+D^-, \bar{B}^0 \rightarrow \pi^0\rho^0\pi^-D^{*+}, \rho^- \rightarrow \pi^0\pi^-,$ $\eta \rightarrow \gamma\gamma, \eta \rightarrow \pi^0\pi^0\pi^0, \bar{K}^0 \rightarrow K_L, D^- \rightarrow \pi^-K_S, \rho^0 \rightarrow \pi^+\pi^-,$ $D^{*+} \rightarrow \pi^0D^+, K_S \rightarrow \pi^+\pi^-, D^+ \rightarrow \pi^0K_L\pi^+$ $(e^+e^- \rightarrow K_LK_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	46	46	1	0	1	47
48	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\rho^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^+K^-D^+D^-, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^+ \rightarrow \pi^0\pi^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^+ \rightarrow \pi^0\pi^+\bar{K}^*, D^- \rightarrow \mu^-\bar{\nu}_\mu K^0, \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu K^+,$ $\bar{K}^* \rightarrow \pi^0\bar{K}^0, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	47	47	1	0	1	48
49	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\rho^+D^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^+ \rightarrow \pi^0\pi^+, D^- \rightarrow \mu^-\bar{\nu}_\mu K^*, D^+ \rightarrow e^+\nu_e\bar{K}^*, K^* \rightarrow \pi^0K^0, \bar{K}^* \rightarrow \pi^0\bar{K}^0,$ $K^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	48	48	1	0	1	49
50	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^-\rho^+\eta D^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $\eta \rightarrow \pi^0\pi^0\pi^0, D^- \rightarrow K_S K^-, D^{*+} \rightarrow \pi^+D^0, \pi^0 \rightarrow e^+e^-, K_S \rightarrow \pi^+\pi^-,$ $D^0 \rightarrow \pi^0\pi^+\pi^-\bar{K}^*, \bar{K}^* \rightarrow \pi^0\bar{K}^0, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^+e^-\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	49	49	1	0	1	50
51	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\eta D^-, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^+\pi^-\bar{D}^{*-}, \eta \rightarrow \pi^+\pi^-,$ $D^- \rightarrow K_L a_1^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, a_1^- \rightarrow \pi^-f_0(600), \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu K^+$ $(e^+e^- \rightarrow e^+\nu_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^+f_0(600)\gamma\gamma)$	50	50	1	0	1	51
52	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\pi^+\rho^-D^-, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^+, \rho^- \rightarrow \pi^0\pi^-,$ $D^- \rightarrow \pi^0\pi^+\pi^-\pi^-K^0, D^+ \rightarrow \pi^+\pi^+K^-, K^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^+K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	51	51	1	0	1	52
53	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+\pi^+\pi^-\omega D^-, \bar{B}^0 \rightarrow \rho^+\rho^-D^{*0}, \rho^0 \rightarrow \pi^+\pi^-,$ $\omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow \pi^-K_1'^0, \rho^+ \rightarrow \pi^0\pi^+, \rho^- \rightarrow \pi^0\pi^-, D^{*0} \rightarrow D^0\gamma,$ $K_1'^0 \rightarrow \pi^-K^{*+}, D^0 \rightarrow e^+\nu_e K^{*-}, K^{*+} \rightarrow \pi^0K^+, K^{*-} \rightarrow \pi^-\bar{K}^0, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^+\nu_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	52	52	1	0	1	53
54	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^-\bar{D}^0 D_s^+, \bar{B}^0 \rightarrow D^{*+}D_s^{*-}, \bar{D}^0 \rightarrow \rho^-K^{*+},$ $D_s^+ \rightarrow \rho^+\eta, D^{*+} \rightarrow \pi^+D^0, D_s^{*-} \rightarrow D_s^-\gamma, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^0K^+,$ $\rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \gamma\gamma, D^0 \rightarrow K_S K^+ K^-, D_s^- \rightarrow \pi^-\eta', K_S \rightarrow \pi^0\pi^0,$ $\eta' \rightarrow \pi^+\pi^-\eta, \eta \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	53	53	1	0	1	54
55	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}a_1^+, \bar{B}^0 \rightarrow \pi^0\rho^0\rho^0\rho^-D^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $a_1^+ \rightarrow \pi^+K^0\bar{K}^0, \rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, D^+ \rightarrow \pi^0\pi^+K_S,$ $\bar{D}^0 \rightarrow K^+a_1^-, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0, a_1^- \rightarrow \rho^0\pi^-,$ $K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^0\pi^0, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	54	54	1	0	1	55





index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
65	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+K^-K^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^0\rho^0\pi^-D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $K^{*-} \rightarrow \pi^+K^0, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-, D^+ \rightarrow e^+\nu_e\bar{K}^0,$ $K^0 \rightarrow K_S, \bar{D}^0 \rightarrow K_L\eta', \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-, \eta' \rightarrow \pi^+\pi^-\eta,$ $K_S \rightarrow \pi^+\pi^-, \eta \rightarrow \gamma\gamma$ $(e^+e^- \rightarrow e^+\nu_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma)$	64	64	1	0	1	65
66	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e D^-, \bar{B}^0 \rightarrow \pi^0\pi^0\pi^+\pi^-\pi^-D^{*+}p\bar{p}, D^- \rightarrow \pi^+\pi^-\pi^-K_S,$ $D^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^0\pi^0, D^0 \rightarrow \pi^0\pi^+\pi^-\bar{K}^*, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	65	65	1	0	1	66
67	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D_0^{*-}, \bar{B}^0 \rightarrow \tau^-\bar{\nu}_\tau D^{*+}, D_0^{*-} \rightarrow \pi^-\bar{D}^0,$ $\tau^- \rightarrow \nu_\tau\pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow \pi^+\pi^-K^*, D^0 \rightarrow \pi^0\pi^0\bar{K}^*, K^* \rightarrow \pi^-K^+,$ $\bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu\nu_\tau\bar{\nu}_\tau\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma)$	66	66	1	0	1	67
68	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\omega\omega\bar{D}^{*-}, \bar{B}^0 \rightarrow \eta D^+D_s^{*-}, \omega \rightarrow \pi^0\gamma,$ $\omega \rightarrow \pi^0\pi^+\pi^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \eta \rightarrow \gamma\gamma, D^+ \rightarrow K_L\pi^+, D_s^{*-} \rightarrow D_s^-\gamma,$ $\bar{D}^0 \rightarrow \pi^-\eta K^+, D_s^- \rightarrow K^0K^{*-}, \eta \rightarrow \pi^0\pi^0\pi^0, K^0 \rightarrow K_L, K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow K_LK_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	67	67	1	0	1	68
69	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^+, \bar{B}^0 \rightarrow \rho^0\rho^-\eta D^{*+}, D^+ \rightarrow \pi^0\pi^+K_S,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \gamma\gamma, D^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^+\pi^-,$ $D^0 \rightarrow \omega\bar{K}^*, \omega \rightarrow \pi^+\pi^-, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma)$	68	68	1	0	1	69
70	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^+D^-, \bar{B}^0 \rightarrow \rho^-D^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow \pi^0\pi^-\phi, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0, \phi \rightarrow K^+K^-, D^0 \rightarrow e^+\nu_e\pi^-$ $(e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma)$	69	69	1	0	1	70
71	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^-K^+D^0\bar{D}^0, \bar{B}^0 \rightarrow K^{*-}D^+, D^0 \rightarrow \rho^+K^{*-},$ $\bar{D}^0 \rightarrow \rho^0\rho^0, K^{*-} \rightarrow \pi^-\bar{K}^0, D^+ \rightarrow e^+\nu_e\bar{K}^*, \rho^+ \rightarrow \pi^0\pi^+, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-, \bar{K}^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+K^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^+\nu_e K_LK_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma)$	70	70	1	0	1	71
72	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^+\rho^+D^-, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^+, \rho^+ \rightarrow \pi^0\pi^+,$ $\rho^- \rightarrow \pi^0\pi^-, D^- \rightarrow e^-\bar{\nu}_e\pi^-K^+, D^+ \rightarrow \pi^0\pi^+\pi^+K^-$ $(e^+e^- \rightarrow e^-e^-\bar{\nu}_e\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	71	71	1	0	1	72
73	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^*n\bar{\Sigma}_c^{*0}, \bar{B}^0 \rightarrow \pi^-D^+, K^* \rightarrow \pi^-K^+,$ $\bar{\Sigma}_c^{*0} \rightarrow \pi^+\bar{\Lambda}_c^-, D^+ \rightarrow \pi^0\pi^+\bar{K}^*, \bar{\Lambda}_c^- \rightarrow \pi^0\pi^-K^+p, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\eta\bar{p}\gamma\gamma\gamma\gamma)$	72	72	1	0	1	73
74	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^-\pi^-D^{*+}\bar{n}\Delta^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $D^{*+} \rightarrow \pi^+D^0, \Delta^+ \rightarrow \pi^0p, \bar{D}^0 \rightarrow e^-\bar{\nu}_e\pi^+K^0, D^0 \rightarrow K^-a_1^+, K^0 \rightarrow K_L,$ $a_1^+ \rightarrow \pi^+f_0(600)$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\bar{n}pf_0(600)\gamma\gamma)$	73	73	1	0	1	74

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
75	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}D^0, \bar{B}^0 \rightarrow D^{*+}D_{s0}^-, K^{*+} \rightarrow \pi^+K^0,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^0 \rightarrow \pi^0\pi^+K^-, D^{*+} \rightarrow \pi^0D^+, D_{s0}^0 \rightarrow \pi^0D_s^-, K^0 \rightarrow K_L,$ $\bar{D}^0 \rightarrow \rho^-K^{*+}, D^+ \rightarrow \mu^+\nu_\mu\pi^+K^-, D_s^- \rightarrow K^*K^-, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^0K^+,$ $K^* \rightarrow \pi^0K^0, K^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	74	74	1	0	1	75
76	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^-\rho^+\bar{D}^{*-}D^{*0}, \bar{D}^{*-} \rightarrow \pi^0D^-,$ $\rho^+ \rightarrow \pi^0\pi^+, \bar{D}^{*-} \rightarrow \pi^0D^-, D^{*0} \rightarrow \pi^0D^0, D^- \rightarrow K_L\pi^-K^+K^-, D^- \rightarrow \pi^0\pi^-\pi^-K^+,$ $D^0 \rightarrow \pi^0\pi^+K^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	75	75	1	0	1	76
77	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^+\omega D^-, \bar{B}^0 \rightarrow K^-D^{*+}D^{*0}, \rho^+ \rightarrow \pi^0\pi^+,$ $\omega \rightarrow \pi^+\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow \pi^0K_L\pi^-, D^{*+} \rightarrow \pi^0D^+, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0,$ $D^+ \rightarrow \pi^+\bar{K}_1^0, \bar{D}^0 \rightarrow \rho^-K^{*+}, \bar{K}_1^0 \rightarrow \pi^+K^{*-}, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^+K^0,$ $K^{*-} \rightarrow \pi^-\bar{K}^0, K^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	76	46	1	0	1	77
78	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^-\rho^-\omega K^0 D^{*+}, D^{*+} \rightarrow \pi^+D^0,$ $\rho^- \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, \bar{K}^0 \rightarrow K_S, D^{*+} \rightarrow \pi^+D^0, D^0 \rightarrow \pi^0\eta K_S,$ $D^0 \rightarrow \mu^+\nu_\mu K^{*-}, \eta \rightarrow \gamma\gamma, K_S \rightarrow \pi^+\pi^-, K^{*-} \rightarrow \pi^-\bar{K}^0, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e \mu^+\nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	77	76	1	0	1	78
79	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e \eta D^-, \bar{B}^0 \rightarrow \rho^0\pi^-D^{*+}, \eta \rightarrow \pi^0\pi^+\pi^-,$ $D^- \rightarrow e^-\bar{\nu}_e K_1^0, \rho^0 \rightarrow \pi^+\pi^-, D^{*+} \rightarrow \pi^+D^0, K_1^0 \rightarrow \pi^0\pi^-K^+, D^0 \rightarrow e^+\nu_e K^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma)$	78	77	1	0	1	79
80	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+\pi^-\rho^+\eta\eta\bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \pi^0\pi^+\pi^-, \eta \rightarrow \pi^0\pi^+\pi^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow \pi^0D^+,$ $\bar{D}^0 \rightarrow \pi^-K^+, D^+ \rightarrow e^+\nu_e \bar{K}^*, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+\nu_e \mu^-\bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	79	78	1	0	1	80
81	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \tau^+\nu_\tau D_0^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^-\omega K^0\bar{K}^0 K^* D^{*+}, \tau^+ \rightarrow \mu^+\nu_\mu\bar{\nu}_\tau,$ $D_0^{*-} \rightarrow \pi^-\bar{D}^0, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+K^-,$ $D^{*+} \rightarrow \pi^0D^+, \bar{D}^0 \rightarrow \pi^+\pi^-\pi^-K^+, K_S \rightarrow \pi^+\pi^-, D^+ \rightarrow \pi^0\pi^+K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu \nu_\tau \bar{\nu}_\tau K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	80	79	1	0	1	81
82	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow D^-a_1^+, \bar{B}^0 \rightarrow \pi^+\pi^-D^+D_s^{*-}, D^- \rightarrow \mu^-\bar{\nu}_\mu\omega,$ $a_1^+ \rightarrow \rho^0\pi^+, D^+ \rightarrow \pi^+\pi^+K^-, D_s^{*-} \rightarrow D_s^-\gamma, \omega \rightarrow \pi^0\pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-,$ $D_s^- \rightarrow \rho^-\phi, \rho^- \rightarrow \pi^0\pi^-, \phi \rightarrow K^+K^-$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma)$	81	80	1	0	1	82
83	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^+\eta\omega D^-, \bar{B}^0 \rightarrow \pi^+D^0D_s^-, \rho^+ \rightarrow \pi^0\pi^+,$ $\eta \rightarrow \pi^+\pi^-, \omega \rightarrow \pi^0\gamma, D^- \rightarrow \mu^-\bar{\nu}_\mu K^*, D^0 \rightarrow K_S K^+ K^-, D_s^- \rightarrow \rho^- \phi,$ $K^* \rightarrow \pi^-K^+, K_S \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, \phi \rightarrow \pi^-\rho^+, \rho^+ \rightarrow \pi^0\pi^+$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	82	81	1	0	1	83

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
84	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+K^0D^-, \bar{B}^0 \rightarrow \pi^+\pi^+\pi^-\pi^-\pi^-D^{*+}, K^0 \rightarrow K_S,$ $D^- \rightarrow \pi^-K^+K^-, D^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^0\pi^0, D^0 \rightarrow \rho^+K^{*-}, \rho^+ \rightarrow \pi^0\pi^+,$ $K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	83	82	1	0	1	84
85	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\rho^-\bar{D}^{*0}, \bar{B}^0 \rightarrow e^-\bar{\nu}_e\eta D^+, \rho^- \rightarrow \pi^0\pi^-,$ $\bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \eta \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^0, \bar{D}^0 \rightarrow K_S\eta', \bar{K}^0 \rightarrow K_L,$ $K_S \rightarrow \pi^0\pi^0, \eta' \rightarrow \pi^+\pi^-\eta, \eta \rightarrow \pi^0\pi^0\pi^0$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu K_L\pi^+\pi^+\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	84	83	1	0	1	85
86	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \eta'D^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \omega\bar{D}^{*-}\bar{n}p, \eta' \rightarrow \pi^0\pi^0\eta,$ $D^+ \rightarrow \pi^+\phi, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \omega \rightarrow \pi^0\pi^+\pi^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \eta \rightarrow \pi^0\pi^+\pi^-,$ $\phi \rightarrow K^+K^-, \bar{D}^0 \rightarrow e^-\bar{\nu}_e\rho^+, \bar{D}^0 \rightarrow e^-\bar{\nu}_eK^+, \rho^+ \rightarrow \pi^0\pi^+$ $(e^+e^- \rightarrow e^+e^-\bar{\nu}_e\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	85	84	1	0	1	86
87	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^-\rho^+D^-, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD_2^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow \mu^-\bar{\nu}_\mu K^*, D_2^{*+} \rightarrow \pi^+D^0, K^* \rightarrow \pi^-K^+, D^0 \rightarrow K_L\omega, \omega \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+\gamma\gamma\gamma)$	86	85	1	0	1	87
88	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^+\eta D^-, \bar{B}^0 \rightarrow \pi^-\rho^+K^0K^{*-}D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $\eta \rightarrow \gamma\gamma, D^- \rightarrow \pi^-\pi^-K^+, \rho^+ \rightarrow \pi^0\pi^+, K^0 \rightarrow K_L, K^{*-} \rightarrow \pi^0K^-,$ $D^+ \rightarrow \rho^0\pi^+, K_L \rightarrow \mu^+\nu_\mu\pi^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma)$	87	86	1	0	1	88
89	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0p\bar{\Sigma}_c^{*-}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D_0^{*+}, \rho^0 \rightarrow \pi^+\pi^-,$ $\bar{\Sigma}_c^{*-} \rightarrow \pi^0\bar{\Lambda}_c^-, D_0^{*+} \rightarrow \pi^+D^0, \bar{\Lambda}_c^- \rightarrow K^+\bar{\Delta}^{++}, D^0 \rightarrow \pi^+\pi^-\bar{K}^*, \bar{\Delta}^{++} \rightarrow \pi^-\bar{p},$ $\bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-p\bar{p}\gamma\gamma)$	88	87	1	0	1	89
90	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^-\pi^-D^+\bar{n}p, \bar{D}^{*-} \rightarrow \pi^0D^-,$ $D^+ \rightarrow K_Sa_1^+, D^- \rightarrow \pi^0\pi^0\pi^-\pi^-K^+, K_S \rightarrow \pi^0\pi^0, a_1^+ \rightarrow \pi^+f_0(600)$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^-\pi^-\pi^-\pi^-K^+\bar{n}pf_0(600)\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	89	88	1	0	1	90
91	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\pi^-\rho^+D^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow \mu^-\bar{\nu}_\mu\pi^-K^+, D^{*+} \rightarrow \pi^0D^+, D^+ \rightarrow \pi^+\pi^+K^-$ $(e^+e^- \rightarrow \mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma)$	90	89	1	0	1	91
92	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^-K^{*+}J/\psi, \bar{B}^0 \rightarrow \pi^0\pi^+K^-\eta_c(2S), K^{*+} \rightarrow \pi^0K^+,$ $J/\psi \rightarrow e^+e^-, \pi^0 \rightarrow e^+e^-, \eta_c(2S) \rightarrow \eta\Sigma^+\bar{\Sigma}^-, \eta \rightarrow \pi^0\pi^0\pi^0, \Sigma^+ \rightarrow \pi^+n,$ $\bar{\Sigma}^- \rightarrow \pi^0\bar{p}$ $(e^+e^- \rightarrow e^+e^+e^-e^-\pi^+\pi^+\pi^-K^+K^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	91	90	1	0	1	92
93	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, \bar{B}^0 \rightarrow K^0\psi', B^0 \rightarrow \pi^-\rho^+\rho^-D^+, K^0 \rightarrow K_S,$ $\psi' \rightarrow \pi^0\pi^0J/\psi, \rho^+ \rightarrow \pi^0\pi^+, \rho^- \rightarrow \pi^0\pi^-, D^+ \rightarrow \bar{K}^*a_1^+, K_S \rightarrow \pi^+\pi^-,$ $J/\psi \rightarrow \mu^+\mu^-, \bar{K}^* \rightarrow \pi^+K^-, a_1^+ \rightarrow \pi^+f_0(600)$ $(e^+e^- \rightarrow \mu^+\mu^-\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-f_0(600)\gamma\gamma\gamma\gamma\gamma\gamma)$	92	91	1	0	1	93

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
94	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\rho^+D^{*-}, \bar{B}^0 \rightarrow \pi^-K^0D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^+ \rightarrow \pi^0\pi^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, K^0 \rightarrow K_L, D^+ \rightarrow K_L a_1^+, \bar{D}^0 \rightarrow \pi^-K^+,$ $a_1^+ \rightarrow \pi^+f_0(600)$ $(e^+e^- \rightarrow K_L K_L \pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+f_0(600)\gamma\gamma)$	93	92	1	0	1	94
95	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^+\omega D^-, \bar{B}^0 \rightarrow \pi^0\omega K^0 K^- D^+, \rho^+ \rightarrow \pi^0\pi^+,$ $\omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow \pi^-\pi^-K^+, \pi^0 \rightarrow e^+e^-, \omega \rightarrow \pi^0\pi^+\pi^-, K^0 \rightarrow K_S,$ $D^+ \rightarrow \mu^+\nu_\mu \bar{K}^*, K_S \rightarrow \pi^+\pi^-, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	94	93	1	0	1	95
96	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow K^+a_1^-, D^0 \rightarrow \pi^0\pi^+K^-, a_1^- \rightarrow \pi^-f_0(600)$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-f_0(600)\gamma\gamma)$	95	94	1	0	1	96
97	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0\pi^-D^{*+}\Delta^+\Delta^+, K^{*+} \rightarrow \pi^+K^0,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow \pi^+D^0, \Delta^+ \rightarrow \pi^+n, \bar{\Delta}^+ \rightarrow \pi^0\bar{p}, K^0 \rightarrow K_L,$ $\bar{D}^0 \rightarrow \pi^0\pi^-K^+, D^0 \rightarrow \pi^+\pi^-K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma)$	96	95	1	0	1	97
98	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow D_2^{*-}D_s^{*+}, \bar{B}^0 \rightarrow \pi^+\pi^-D^+D_s^-, D_2^{*-} \rightarrow \pi^0\bar{D}^{*-},$ $D_s^{*+} \rightarrow D_s^+\gamma, D^+ \rightarrow \pi^+\bar{K}'^0, D_s^- \rightarrow e^-\bar{\nu}_e\eta', \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D_s^+ \rightarrow \pi^+\phi,$ $\bar{K}'^0 \rightarrow \pi^+K^{*-}, \eta' \rightarrow \pi^0\pi^0\eta, \bar{D}^0 \rightarrow \pi^-\omega K^+, \phi \rightarrow \pi^-\rho^+, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $\eta \rightarrow \pi^0\pi^+\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	97	96	1	0	1	98
99	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K_L\eta_c, \bar{B}^0 \rightarrow \pi^-\pi^-\rho^+D^{*+}, \eta_c \rightarrow \pi^0K^0\bar{K}^0K^*K^*,$ $\rho^+ \rightarrow \pi^0\pi^+, D^{*+} \rightarrow \pi^0D^+, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S,$ $K^* \rightarrow \pi^-K^+, D^+ \rightarrow \pi^0\pi^+K_S, K_S \rightarrow \pi^0\pi^0, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow K_L K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	98	97	1	0	1	99
100	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\rho^0\pi^+\bar{D}^{*-}, \bar{B}^0 \rightarrow K^*K^-D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, K^* \rightarrow \pi^0K^0, D^+ \rightarrow \pi^+\pi^+K^-, \bar{D}^0 \rightarrow \pi^-\rho^+, K^0 \rightarrow K_S,$ $\rho^+ \rightarrow \pi^0\pi^+, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	99	98	1	0	1	100
101	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\rho^-\eta\bar{D}^0, \bar{B}^0 \rightarrow \pi^-\rho^+\rho^-D^+, \rho^- \rightarrow \pi^0\pi^-,$ $\eta \rightarrow \pi^0\pi^+\pi^-, \bar{D}^0 \rightarrow \pi^0\pi^+\pi^-K_S, \rho^+ \rightarrow \pi^0\pi^+, \rho^- \rightarrow \pi^0\pi^-, D^+ \rightarrow e^+\nu_e\bar{K}^0,$ $\pi^0 \rightarrow e^+e^-, K_S \rightarrow \pi^+\pi^-, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+e^+e^-\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	100	99	1	0	1	101
102	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\eta\omega\bar{D}^0, \bar{B}^0 \rightarrow \pi^+\pi^-D^+D_s^-, \eta \rightarrow \pi^+\pi^-,$ $\omega \rightarrow \pi^0\pi^+\pi^-, \bar{D}^0 \rightarrow \pi^0\pi^-K^+, D^+ \rightarrow \pi^0\pi^+K_S, D_s^- \rightarrow e^-\bar{\nu}_e\eta, K_S \rightarrow \pi^+\pi^-,$ $\eta \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	101	100	1	0	1	102









index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
131	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \eta K^0 K^+ \bar{D}^{*-}, \bar{B}^0 \rightarrow \rho^- \eta D^+, \eta \rightarrow \pi^0 \pi^+ \pi^-,$ $\bar{K}^0 \rightarrow K_S, \bar{D}^{*-} \rightarrow \pi^0 D^-, \rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \gamma \gamma, D^+ \rightarrow \pi^0 \pi^0 \pi^+,$ $K_S \rightarrow \pi^0 \pi^0, D^- \rightarrow K_L a_1^-, a_1^- \rightarrow \rho^0 \pi^-, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	130	129	1	0	1	131
132	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \rho^- D^+, \bar{B}^0 \rightarrow \rho^0 \pi^- \omega D^+, \rho^- \rightarrow \pi^0 \pi^-,$ $D^+ \rightarrow e^+ \nu_e \pi^+ K^-, \rho^0 \rightarrow \pi^+ \pi^-, \omega \rightarrow \pi^0 \pi^+ \pi^-, D^+ \rightarrow \pi^+ \pi^+ K^-$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma)$	131	130	1	0	1	132
133	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \bar{D}^{*-} D_s^+, \bar{B}^0 \rightarrow e^+ \nu_e D_2^{*-}, \bar{D}^{*-} \rightarrow \pi^0 D^-,$ $D_s^+ \rightarrow \mu^+ \nu_\mu \phi, D_2^{*-} \rightarrow \pi^- \bar{D}^{*0}, D^- \rightarrow e^- \bar{\nu}_e \pi^- K^+, \phi \rightarrow K^+ K^-, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma,$ $\bar{D}^0 \rightarrow K^+ a_1^-, a_1^- \rightarrow \rho^0 \pi^-, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^+ K^- \gamma \gamma \gamma \gamma)$	132	131	1	0	1	133
134	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- \rho^+ \bar{D}^{*-}, \bar{B}^0 \rightarrow D_2^{*+} D_s^-, \rho^+ \rightarrow \pi^0 \pi^+,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D_2^{*+} \rightarrow \pi^+ D^0, D_s^- \rightarrow \tau^- \bar{\nu}_\tau, \bar{D}^0 \rightarrow \pi^0 K_L \pi^+ \pi^-, D^0 \rightarrow \rho^+ K^{*-},$ $\tau^- \rightarrow \nu_\tau \pi^0 \pi^-, \rho^+ \rightarrow \pi^0 \pi^+, K^{*-} \rightarrow \pi^- \bar{K}^0, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow \nu_\tau \bar{\nu}_\tau K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	133	132	1	0	1	134
135	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \omega K^+ D_s^{*-}, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^{*+}, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $D_s^{*-} \rightarrow D_s^- \gamma, D^{*+} \rightarrow \pi^+ D^0, D_s^- \rightarrow \rho^- \eta', D^0 \rightarrow \pi^+ \pi^+ \pi^- K^-, \rho^- \rightarrow \pi^0 \pi^-,$ $\eta' \rightarrow \rho^0 \gamma, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	134	133	1	0	1	135
136	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow D_s^{*+} D_1'^-, \bar{B}^0 \rightarrow \rho^0 \pi^- D^{*+}, D_s^{*+} \rightarrow D_s^+ \gamma,$ $D_1'^- \rightarrow \pi^- \bar{D}^{*0}, \rho^0 \rightarrow \pi^+ \pi^-, D^{*+} \rightarrow \pi^+ D^0, D_s^+ \rightarrow K_L \pi^+ \pi^- K^+, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma,$ $D^0 \rightarrow K^- a_1^+, \bar{D}^0 \rightarrow \pi^0 \pi^+ \pi^- K^*, a_1^+ \rightarrow \pi^+ f_0(600), K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- f_0(600) \gamma \gamma \gamma \gamma)$	135	134	1	0	1	136
137	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^0 \pi^- \rho^+ K^0 D^-, \bar{B}^0 \rightarrow \pi^0 \rho^0 \pi^- \eta \omega D^+, \rho^0 \rightarrow \pi^+ \pi^-,$ $\rho^+ \rightarrow \pi^0 \pi^+, \rho^+ \rightarrow \pi^0 \pi^+, K^0 \rightarrow K_S, D^- \rightarrow K_L \pi^+ \pi^- K^-, \pi^0 \rightarrow e^+ e^-,$ $\rho^0 \rightarrow \pi^+ \pi^-, \eta \rightarrow \pi^+ \pi^-, \omega \rightarrow \pi^0 \pi^+ \pi^-, D^+ \rightarrow K_L a_1^+, K_S \rightarrow \pi^+ \pi^-,$ $a_1^+ \rightarrow \pi^0 \rho^+, \rho^+ \rightarrow \pi^0 \pi^+$ $(e^+e^- \rightarrow e^+ e^- K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	136	135	1	0	1	137
138	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^0 K^+ D_s^{*-}, \bar{B}^0 \rightarrow D^{*0} n \bar{n}, D_s^{*-} \rightarrow D_s^- \gamma,$ $D^{*0} \rightarrow \pi^0 D^0, D_s^- \rightarrow \rho^- \eta', D^0 \rightarrow \pi^+ K^-, \rho^- \rightarrow \pi^0 \pi^-, \eta' \rightarrow \rho^0 \gamma,$ $\rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^- \pi^- K^+ K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	137	136	1	0	1	138
139	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow e^+ \nu_e D^-, \bar{B}^0 \rightarrow K^+ \Delta^+ \bar{\Sigma}_c^{*-}, D^- \rightarrow K_L \pi^+ \pi^- K^-,$ $\Delta^+ \rightarrow \pi^0 p, \bar{\Sigma}_c^{*-} \rightarrow \pi^- \bar{\Lambda}_c^-, \bar{\Lambda}_c^- \rightarrow \pi^0 \pi^- \bar{\Delta}^0, \bar{\Delta}^0 \rightarrow \pi^+ \bar{p}$ $(e^+e^- \rightarrow e^+ \nu_e K_L \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- p \bar{p} \gamma \gamma \gamma \gamma)$	138	137	1	0	1	139

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
140	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^+ \rho^- \eta \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \pi^+ \pi^- \pi^- \bar{K}^0 K^* K^+ K^{*-}, \rho^+ \rightarrow \pi^0 \pi^+,$ $\rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \pi^0 \pi^+ \pi^-, \bar{D}^{*-} \rightarrow \pi^0 D^-, \bar{K}^0 \rightarrow K_S,$ $K^* \rightarrow \pi^- K^+, K^{*-} \rightarrow \pi^- \bar{K}^0, D^- \rightarrow e^- \bar{\nu}_e K^+, K_S \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_S,$ $K^* \rightarrow \pi^- K^+, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	139	138	1	0	1	140
141	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \rho^0 \pi^- D^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0,$ $\rho^0 \rightarrow \pi^+ \pi^-, D^+ \rightarrow \pi^0 \pi^+ \bar{K}^*, \bar{D}^0 \rightarrow e^- \bar{\nu}_e K^+, \bar{K}^* \rightarrow \pi^0 \bar{K}^0, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma)$	140	139	1	0	1	141
142	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow D^- D_s^{*+} \gamma, \bar{B}^0 \rightarrow \pi^+ \pi^- \rho^- D^+, D^- \rightarrow \pi^0 \pi^- K^+ K^-,$ $D_s^{*+} \rightarrow D_s^+ \gamma, \rho^- \rightarrow \pi^0 \pi^-, D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^*, D_s^+ \rightarrow \bar{K}^* K^{*+}, \bar{K}^* \rightarrow \pi^+ K^-,$ $\bar{K}^* \rightarrow \pi^+ K^-, K^{*+} \rightarrow \pi^0 K^+$ $(e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	141	140	1	0	1	142
143	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^+ n \bar{\Sigma}_c^-, \bar{B}^0 \rightarrow D^{*+} D_1'^-, \rho^+ \rightarrow \pi^0 \pi^+,$ $\bar{\Sigma}_c^- \rightarrow \pi^0 \bar{\Lambda}_c^-, D^{*+} \rightarrow \pi^+ D^0, D_1'^- \rightarrow \pi^0 D_s^{*-}, \bar{\Lambda}_c^- \rightarrow \bar{K}^* \bar{\Sigma}^-, D_1^0 \rightarrow \pi^0 \pi^+ K^-,$ $D_s^{*-} \rightarrow D_s^- \gamma, \bar{K}^* \rightarrow \pi^+ K^-, \bar{\Sigma}^- \rightarrow \pi^- \bar{n}, D_s^- \rightarrow K^* K^-, K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- K^- K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	142	141	1	0	1	143
144	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^- \bar{\nu}_\mu D^+, \bar{B}^0 \rightarrow \bar{K}^* K^- D^{*+}, D^+ \rightarrow K_S K^{*+},$ $\bar{K}^* \rightarrow \pi^+ K^-, D^{*+} \rightarrow \pi^0 D^+, K_S \rightarrow \pi^+ \pi^-, K^{*+} \rightarrow \pi^0 K^+, D^+ \rightarrow \pi^0 \pi^0 \pi^+$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	143	142	1	0	1	144
145	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^+ \pi^- \omega \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \pi^+ \pi^- \pi^- D^{*+}, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*+} \rightarrow \pi^+ D^0, \bar{D}^0 \rightarrow e^- \bar{\nu}_e \pi^+ K^0, D^0 \rightarrow \rho^+ K^{*-}, K^0 \rightarrow K_S,$ $\rho^+ \rightarrow \pi^0 \pi^+, K^{*-} \rightarrow \pi^- \bar{K}^0, K_S \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	144	143	1	0	1	145
146	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ K^0 \bar{K}^* \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^+ K^- D^- D^{*+}, K^0 \rightarrow K_L,$ $\bar{K}^* \rightarrow \pi^+ K^-, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^- \rightarrow K_S a_1^-, D^{*+} \rightarrow \pi^+ D^0, \bar{D}^0 \rightarrow K_S \eta',$ $K_S \rightarrow \pi^+ \pi^-, a_1^- \rightarrow \rho^0 \pi^-, D^0 \rightarrow \pi^0 \pi^0 \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-, \eta' \rightarrow \rho^0 \gamma,$ $\rho^0 \rightarrow \pi^+ \pi^-, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma \gamma)$	145	144	1	0	1	146
147	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^- D_2^{*+}, \bar{B}^0 \rightarrow \rho^0 \pi^+ K^{*-} \eta_c, \rho^- \rightarrow \pi^0 \pi^-,$ $D_2^{*+} \rightarrow \pi^+ D^0, \rho^0 \rightarrow \pi^+ \pi^-, K^{*-} \rightarrow \pi^- \bar{K}^0, \eta_c \rightarrow \pi^0 \pi^+ \pi^- \omega, D^0 \rightarrow \pi^+ \omega K^-,$ $\bar{K}^0 \rightarrow K_L, \omega \rightarrow \pi^0 \pi^+ \pi^-, \omega \rightarrow \pi^0 \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	146	145	1	0	1	147
148	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^0 \pi^+ \pi^+ \rho^- D^-, \bar{B}^0 \rightarrow D_s^{*-} D_1^+, \rho^0 \rightarrow \pi^+ \pi^-,$ $\rho^- \rightarrow \pi^0 \pi^-, D^- \rightarrow \mu^- \bar{\nu}_\mu K^0, D_s^{*-} \rightarrow D_s^- \gamma, D_1^+ \rightarrow \pi^+ D^{*0}, K^0 \rightarrow K_S,$ $D_s^- \rightarrow \pi^+ \pi^- K_S K^-, D^{*0} \rightarrow D^0 \gamma, K_S \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-, D^0 \rightarrow \pi^+ \omega K^-,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma \gamma)$	147	146	1	0	1	148

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
149	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^0\pi^+D^-, \bar{B}^0 \rightarrow \pi^+\pi^-\pi^-D^+, \rho^0 \rightarrow \pi^+\pi^-,$ $D^- \rightarrow \pi^-K_1^{\prime 0}, D^+ \rightarrow K_S a_1^+, K_1^{\prime 0} \rightarrow \pi^-K^{*+}, K_S \rightarrow \pi^+\pi^-, a_1^+ \rightarrow \pi^0\rho^+,$ $K^{*+} \rightarrow \pi^0K^+, \rho^+ \rightarrow \pi^0\pi^+$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma)$	148	147	1	0	1	149
150	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \tau^+\nu_\tau D_0^{*-}, \bar{B}^0 \rightarrow \pi^0\omega K^*K^-D^+, \tau^+ \rightarrow \mu^+\nu_\mu\bar{\nu}_\tau,$ $D_0^{*-} \rightarrow \pi^-\bar{D}^0, \omega \rightarrow \pi^0\pi^+\pi^-, K^* \rightarrow \pi^0K^0, D^+ \rightarrow \pi^+\pi^+K^-, \bar{D}^0 \rightarrow \pi^0\pi^-K^+,$ $K^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^+\nu_\mu\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	149	148	1	0	1	150
151	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\pi^+\pi^-\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $D^{*+} \rightarrow \pi^0D^+, \bar{D}^0 \rightarrow \pi^-K^+, D^+ \rightarrow \mu^+\nu_\mu\pi^+K^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma)$	150	149	1	0	1	151
152	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\bar{D}^{*-}\bar{\Sigma}^0\Sigma^+, \bar{B}^0 \rightarrow \eta\bar{K}^0J/\psi, \rho^0 \rightarrow \pi^+\pi^-,$ $\bar{D}^{*-} \rightarrow \pi^0D^-, \bar{\Sigma}^0 \rightarrow \bar{\Lambda}\gamma, \Sigma^+ \rightarrow \pi^+n, \eta \rightarrow \pi^0\pi^0\pi^0, \bar{K}^0 \rightarrow K_L,$ $J/\psi \rightarrow \pi^-\eta K_S K^+, D^- \rightarrow \mu^-\bar{\nu}_\mu K^0, \bar{\Lambda} \rightarrow \pi^+\bar{p}, K_L \rightarrow e^-\nu_e\pi^+, \eta \rightarrow \pi^0\pi^+\pi^-,$ $K_S \rightarrow \pi^+\pi^-, K^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^-\nu_e\mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	151	150	1	0	1	152
153	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\rho^0\rho^0\rho^+\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow D^+\gamma,$ $\bar{D}^0 \rightarrow \rho^-K^{*+}, D^+ \rightarrow K_S K^{*+}, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^0K^+, K_S \rightarrow \pi^+\pi^-,$ $K^{*+} \rightarrow \pi^+K^0, K^0 \rightarrow K_L, K_L \rightarrow \mu^-\nu_\mu\pi^+$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^-\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma)$	152	151	1	0	1	153
154	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}D^-, \bar{B}^0 \rightarrow \pi^+K^-\chi_{c1}, K^{*+} \rightarrow \pi^0K^+,$ $D^- \rightarrow \pi^-K_1^{\prime 0}, \chi_{c1} \rightarrow \pi^-\eta\eta\bar{K}^0K^+, K_1^{\prime 0} \rightarrow \pi^-K^{*+}, \eta \rightarrow \gamma\gamma, \eta \rightarrow \pi^0\pi^0\pi^0,$ $\bar{K}^0 \rightarrow K_S, K^{*+} \rightarrow \pi^0K^+, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	153	152	1	0	1	154
155	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}D^-D^0, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD_2^{*+}, K^{*+} \rightarrow \pi^0K^+,$ $D^- \rightarrow \pi^0\pi^-K_S, D^0 \rightarrow \pi^0\pi^0\pi^+\pi^-, D_2^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^+\pi^-, D^0 \rightarrow \pi^0\pi^+K^{*-},$ $K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	154	153	1	0	1	155
156	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^+D^-, \bar{B}^0 \rightarrow \pi^-\pi^-\rho^+D^{*+}, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow \rho^-K^*, \rho^+ \rightarrow \pi^0\pi^+, D^{*+} \rightarrow \pi^+D^0, \rho^- \rightarrow \pi^0\pi^-, K^* \rightarrow \pi^-K^+,$ $D^0 \rightarrow \pi^0\pi^0\bar{K}^*, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	155	154	1	0	1	156
157	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0\rho^0\rho^-D^{*+}\gamma, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow \pi^0\pi^-K^+, D^0 \rightarrow e^+\nu_e\rho^-,$ $\rho^- \rightarrow \pi^0\pi^-$ $(e^+e^- \rightarrow e^+e^+\nu_e\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	156	155	1	0	1	157









index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
195	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow J/\psi K_1^0, \bar{B}^0 \rightarrow \pi^0 D^+ D_s^{*-}, J/\psi \rightarrow \pi^0 \eta \eta,$ $K_1^0 \rightarrow \pi^+ \pi^- K^0, D^+ \rightarrow e^+ \nu_e \bar{K}^0, D_s^{*-} \rightarrow D_s^- \gamma, \eta \rightarrow \gamma \gamma, \eta \rightarrow \gamma \gamma,$ $K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_S, D_s^- \rightarrow \rho^- \eta, K_S \rightarrow \pi^0 \pi^0, K_S \rightarrow \pi^+ \pi^-,$ $\rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \pi^0 \pi^0 \pi^0$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	194	193	1	0	1	195
196	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^* D^+ D^-, B^0 \rightarrow \bar{D}^{*-} \Delta^- \Delta^0, K^* \rightarrow \pi^0 K^0,$ $D^+ \rightarrow \pi^+ \bar{K}_1^{'0}, D^- \rightarrow e^- \bar{\nu}_e K_2^{*0}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \bar{\Delta}^- \rightarrow \pi^+ \bar{n}, \Delta^0 \rightarrow \pi^0 n,$ $K^0 \rightarrow K_L, \bar{K}_1^{'0} \rightarrow \pi^+ K^{*-}, K_2^{*0} \rightarrow \pi^0 K^0, \bar{D}^0 \rightarrow e^- \bar{\nu}_e \pi^+ K^0, K^{*-} \rightarrow \pi^0 K^-,$ $K^0 \rightarrow K_S, K^0 \rightarrow K_L, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- e^- \bar{\nu}_e \bar{\nu}_e K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	195	194	1	0	1	196
197	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0 \pi^- \eta \bar{D}^{*0} D_s^{*+}, \bar{B}^0 \rightarrow D^{*0} \Delta^0 \bar{\Delta}^0, \eta \rightarrow \gamma \gamma,$ $\bar{D}^{*0} \rightarrow \bar{D}^0 \gamma, D_s^{*+} \rightarrow D_s^+ \gamma, D^{*0} \rightarrow \pi^0 D^0, \Delta^0 \rightarrow \pi^0 n, \bar{\Delta}^0 \rightarrow \pi^0 \bar{n},$ $\bar{D}^0 \rightarrow \pi^0 \pi^- K^+, D_s^+ \rightarrow \mu^+ \nu_\mu, D^0 \rightarrow e^+ \nu_e \pi^- \bar{K}^0, \pi^0 \rightarrow e^+ e^-, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^0 \pi^0$ $(e^+e^- \rightarrow e^+ e^+ e^- \nu_e \mu^+ \nu_\mu \pi^- \pi^- \pi^- K^+ n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	196	195	1	0	1	197
198	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0 \pi^+ \omega \bar{D}^{*-}, \bar{B}^0 \rightarrow D^0 n \bar{n}, \rho^0 \rightarrow \pi^+ \pi^-,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^0 \rightarrow K_L \eta, \bar{D}^0 \rightarrow \pi^0 \pi^- K^+, \eta \rightarrow \gamma \gamma$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	197	196	1	0	1	198
199	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu \bar{D}^{*-}, B^0 \rightarrow \rho^0 \pi^+ \pi^- \rho^+ \omega \bar{D}^{*-}, \bar{D}^{*-} \rightarrow \pi^0 D^-,$ $\rho^0 \rightarrow \pi^+ \pi^-, \rho^+ \rightarrow \pi^0 \pi^+, \omega \rightarrow \pi^0 \pi^+ \pi^-, \bar{D}^{*-} \rightarrow \pi^0 D^-, D^- \rightarrow e^- \bar{\nu}_e \pi^- K^+,$ $D^- \rightarrow \pi^0 \pi^- K^*, K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	198	197	1	0	1	199
200	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+ \pi^+ \pi^+ \pi^- \pi^- D^-, \bar{B}^0 \rightarrow e^- \bar{\nu}_e \pi^+ D^0, D^- \rightarrow \mu^- \bar{\nu}_\mu K_1^0,$ $D^0 \rightarrow \pi^+ \pi^- K_S, K_1^0 \rightarrow \pi^+ \pi^- K^0, K_S \rightarrow \pi^+ \pi^-, K^0 \rightarrow K_S, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^-)$	199	198	1	0	1	200



Table 2: Event initial-final states.

[illegible]



index	event initial-final states	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
81	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma$	80	1	0	1	82
82	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	81	1	0	1	83
83	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	82	1	0	1	84
84	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	83	1	0	1	85
85	$e^+e^- \rightarrow e^- e^- \bar{\nu}_e \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	84	1	0	1	86
86	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma$	85	1	0	1	87
87	$e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma$	86	1	0	1	88
88	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- p \bar{p} \gamma \gamma$	87	1	0	1	89
89	$e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \bar{n} p f_0(600) \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	88	1	0	1	90
90	$e^+e^- \rightarrow \mu^- \mu^- \bar{\nu}_\mu \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma$	89	1	0	1	91
91	$e^+e^- \rightarrow e^+ e^+ e^- e^- \pi^+ \pi^+ \pi^- K^+ K^- n \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	90	1	0	1	92
92	$e^+e^- \rightarrow \mu^+ \mu^- \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^- f_0(600) \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	91	1	0	1	93
93	$e^+e^- \rightarrow K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ f_0(600) \gamma \gamma$	92	1	0	1	94
94	$e^+e^- \rightarrow e^+ e^- \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma$	93	1	0	1	95
95	$e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \pi^+ \pi^+ \pi^- \pi^- K^+ K^- f_0(600) \gamma \gamma$	94	1	—	1	96
96	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ n \bar{p} \gamma \gamma \gamma \gamma \gamma$	95	1	0	1	97
97	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	96	1	0	1	98
98	$e^+e^- \rightarrow K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	97	1	0	1	99
99	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	98	1	0	1	100
100	$e^+e^- \rightarrow e^+ e^+ e^- \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	99	1	0	1	101
101	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	100	1	0	1	102
102	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	101	1	—	1	103
103	$e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	102	1	0	1	104
104	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	103	1	0	1	105
105	$e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	104	1	0	1	106
106	$e^+e^- \rightarrow e^+ e^- \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma$	105	1	—	1	107
107	$e^+e^- \rightarrow e^+ e^- \mu^- \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	106	1	0	1	108
108	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma$	107	1	0	1	109
109	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	108	1	0	1	110
110	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	109	1	0	1	111
111	$e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	110	1	0	1	112
112	$e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ n \bar{n} \gamma \gamma \gamma \gamma$	111	1	0	1	113
113	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	112	1	0	1	114
114	$e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma$	113	1	0	1	115
115	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	114	1	0	1	116
116	$e^+e^- \rightarrow e^+ \nu_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	115	1	0	1	117
117	$e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	116	1	0	1	118
118	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	117	1	0	1	119
119	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma$	118	1	0	1	120
120	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- K^- \gamma \gamma \gamma \gamma$	119	1	0	1	121

index	event initial-final states	iEvtIFSts	nEvts	nCcEvts	nTotEvts	nCmltEvts
121	$e^+e^- \rightarrow \mu^+\nu_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma$	120	1	0	1	122
122	$e^+e^- \rightarrow e^- e^- \bar{\nu}_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^- K^+ K^- \gamma \gamma \gamma$	121	1	0	1	123
123	$e^+e^- \rightarrow e^- \bar{\nu}_e \nu_\tau \bar{\nu}_\tau K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma$	122	1	0	1	124
124	$e^+e^- \rightarrow e^+ e^- \mu^- \bar{\nu}_\mu K_L K_L \pi^+ \pi^+ \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	123	1	0	1	125
125	$e^+e^- \rightarrow e^+ \nu_e \mu^+ \mu^- \nu_\mu \bar{\nu}_\mu \pi^+ \pi^+ \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	124	1	0	1	126
126	$e^+e^- \rightarrow e^+ e^- \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	125	1	0	1	127
127	$e^+e^- \rightarrow e^+ e^- e^- \nu_e \bar{\nu}_e \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^- K^- \gamma \gamma \gamma$	126	1	0	1	128
128	$e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \nu_\tau \bar{\nu}_\tau \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma$	127	1	—	1	129
129	$e^+e^- \rightarrow e^+ e^- e^- \nu_e \nu_e \bar{\nu}_e \pi^+ \pi^+ \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	128	1	0	1	130
130	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	129	1	0	1	131
131	$e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma$	130	1	0	1	132
132	$e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma$	131	1	0	1	133
133	$e^+e^- \rightarrow \nu_\tau \bar{\nu}_\tau K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma$	132	1	—	1	134
134	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma$	133	1	0	1	135
135	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- f_0(600) \gamma \gamma \gamma$	134	1	0	1	136
136	$e^+e^- \rightarrow e^+ e^- K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	135	1	0	1	137
137	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^- \pi^- K^+ K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	136	1	—	1	138
138	$e^+e^- \rightarrow e^+ \nu_e K_L \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- p \bar{p} \gamma \gamma \gamma$	137	1	0	1	139
139	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	138	1	0	1	140
140	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma$	139	1	0	1	141
141	$e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma$	140	1	0	1	142
142	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- K^- K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	141	1	0	1	143
143	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	142	1	0	1	144
144	$e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma$	143	1	0	1	145
145	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma$	144	1	0	1	146
146	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma$	145	1	0	1	147
147	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^- K^- \gamma \gamma \gamma \gamma \gamma$	146	1	0	1	148
148	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma$	147	1	0	1	149
149	$e^+e^- \rightarrow \mu^+ \nu_\mu \nu_\tau \bar{\nu}_\tau K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma$	148	1	0	1	150
150	$e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma$	149	1	0	1	151
151	$e^+e^- \rightarrow e^- \nu_e \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ n \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	150	1	0	1	152
152	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma$	151	1	0	1	153
153	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	152	1	0	1	154
154	$e^+e^- \rightarrow e^- \bar{\nu}_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	153	1	0	1	155
155	$e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	154	1	—	1	156
156	$e^+e^- \rightarrow e^+ e^+ \nu_e \nu_e \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	155	1	0	1	157
157	$e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	156	1	0	1	158
158	$e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ f_0(600) \gamma \gamma \gamma \gamma$	157	1	0	1	159
159	$e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma$	158	1	0	1	160
160	$e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- f_0(600) \gamma \gamma$	159	1	0	1	161



Table 3: Event branches of  $B^0$ .

index	event branch of $B^0$	iEvtBrOfP1	nEtrs	nCcEtrs	nTotEtrs	nCmltEtrs
1	$B^0 \rightarrow e^+ \nu_e D^{*-}$	10	9	16	25	25
2	$B^0 \rightarrow \mu^+ \nu_\mu \bar{D}^{*-}$	17	11	14	25	50
3	$B^0 \rightarrow e^+ \nu_e D^-$	82	5	4	9	59
4	$B^0 \rightarrow \pi^0 \pi^+ \pi^- D^{*-}$	16	5	3	8	67
5	$B^0 \rightarrow \bar{D}^{*-} D_s^{*+}$	19	2	5	7	74
6	$B^0 \rightarrow \rho^+ D^-$	27	3	3	6	80
7	$B^0 \rightarrow \mu^+ \nu_\mu D^-$	44	3	3	6	86
8	$B^0 \rightarrow \tau^+ \nu_\tau \bar{D}^{*-}$	14	4	2	6	92
9	$B^0 \rightarrow \rho^0 \pi^+ \bar{D}^{*-}$	63	1	4	5	97
10	$B^0 \rightarrow e^+ \nu_e D_2^{*-}$	127	2	3	5	102
11	$B^0 \rightarrow D^{*-} D_{s1}^+$	158	3	2	5	107
12	$B^0 \rightarrow \pi^+ \pi^- \rho^+ D^-$	46	1	3	4	111
13	$B^0 \rightarrow \bar{D}^{*-} a_1^+$	6	4	0	4	115
14	$B^0 \rightarrow \bar{D}^{*-} D_s^+$	71	1	3	4	119
15	$B^0 \rightarrow \tau^+ \nu_\tau D_0^{*-}$	53	3	0	3	122
16	$B^0 \rightarrow \pi^0 \pi^+ \pi^- \rho^+ D^-$	60	1	2	3	125
17	$B^0 \rightarrow \pi^+ \eta \bar{D}^{*-}$	25	1	2	3	128
18	$B^0 \rightarrow \pi^0 \pi^+ \bar{D}^{*-}$	3	1	2	3	131
19	$B^0 \rightarrow \rho^0 \rho^+ \bar{D}^{*-}$	76	2	1	3	134
20	$B^0 \rightarrow e^+ \nu_e \eta D^-$	80	2	1	3	137
21	$B^0 \rightarrow \pi^+ \pi^- D^- D_s^+$	11	0	3	3	140
22	$B^0 \rightarrow \pi^- \bar{D}^0 D_s^+$	85	1	2	3	143
23	$B^0 \rightarrow \rho^+ \bar{D}^{*-}$	106	1	2	3	146
24	$B^0 \rightarrow \mu^+ \nu_\mu D_1^-$	45	2	1	3	149
25	$B^0 \rightarrow \pi^- K^{*+} J/\psi$	2	2	1	3	152
26	$B^0 \rightarrow \mu^+ \nu_\mu D_1'^-$	159	2	1	3	155
27	$B^0 \rightarrow \pi^+ \omega \bar{D}^{*-}$	66	1	1	2	157
28	$B^0 \rightarrow \mu^+ \nu_\mu D_2^{*-}$	33	2	0	2	159
29	$B^0 \rightarrow \pi^- K^* D^{*+} \bar{D}^0$	41	0	2	2	161
30	$B^0 \rightarrow \pi^0 \pi^0 \rho^0 \pi^+ D^{*-}$	0	2	0	2	163
rest	$B^0 \rightarrow \text{others}$	—	119	118	237	400