

Topology Analysis ^{*}

(v1.6.1)

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December 2, 2018

^{*}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 and Yeqi Chen for their efforts in helping me test the program.

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index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
11	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- \rho^+ \eta D^-, \bar{B}^0 \rightarrow \pi^- \rho^+ \rho^- D^+, \rho^+ \rightarrow \pi^0 \pi^+, \eta \rightarrow \gamma \gamma,$ $D^- \rightarrow \pi^0 K_L \pi^-, \rho^+ \rightarrow \pi^0 \pi^+, \rho^- \rightarrow \pi^0 \pi^-, D^+ \rightarrow e^+ \nu_e \pi^+ K^-$ $(e^+e^- \rightarrow e^+ \nu_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	10	10	1	11
12	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^+ \Sigma^- \bar{\Xi}_c^{*0}, \bar{B}^0 \rightarrow \pi^- \bar{\Delta}^+ \Sigma_c^{*+}, \Sigma^- \rightarrow \pi^- n, \bar{\Xi}_c^{*0} \rightarrow \bar{\Xi}_c^0 \gamma,$ $\bar{\Delta}^+ \rightarrow \pi^- \bar{n}, \Sigma_c^{*+} \rightarrow \pi^+ \Lambda_c^+, \bar{\Xi}_c^0 \rightarrow \rho^- \bar{\Xi}^+, \Lambda_c^+ \rightarrow \pi^0 \pi^+ \pi^- \Sigma^+, \rho^- \rightarrow \pi^0 \pi^-, \bar{\Xi}^+ \rightarrow \pi^+ \bar{\Lambda},$ $\Sigma^+ \rightarrow \pi^0 p, \bar{\Lambda} \rightarrow \pi^0 \bar{n}$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- n \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	11	11	1	12
13	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^0 D^{*0} \bar{D}^{*0}, \bar{B}^0 \rightarrow D^{*+} a_1^-, K^0 \rightarrow K_S, D^{*0} \rightarrow D^0 \gamma,$ $\bar{D}^{*0} \rightarrow \pi^0 \bar{D}^0, D^{*+} \rightarrow \pi^+ D^0, a_1^- \rightarrow \pi^0 \rho^-, K_S \rightarrow \pi^+ \pi^-, D^0 \rightarrow \pi^0 \pi^+ \pi^- \bar{K}^*, \bar{D}^0 \rightarrow K_S K^+ K^-,$ $D^0 \rightarrow e^+ \nu_e \pi^- \bar{K}^0, \rho^- \rightarrow \pi^0 \pi^-, \bar{K}^* \rightarrow \pi^0 \bar{K}^0, K_S \rightarrow \pi^0 \pi^0, \bar{K}^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	12	12	1	13
14	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu \bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D_1^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D_1^{*+} \rightarrow \pi^0 D^{*+},$ $\bar{D}^0 \rightarrow \pi^- K^+, D^{*+} \rightarrow \pi^+ D^0, D^0 \rightarrow K^- a_1^+, a_1^+ \rightarrow \pi^0 \rho^+, \rho^+ \rightarrow \pi^0 \pi^+$ $(e^+e^- \rightarrow \mu^+ \mu^- \nu_\mu \bar{\nu}_\mu \pi^+ \pi^+ \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma)$	13	13	1	14
15	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^0 K^- \bar{D}^0 D^+, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^{*+}, K^0 \rightarrow K_L, \bar{D}^0 \rightarrow \pi^0 \pi^0 K^+ K^-,$ $D_s^+ \rightarrow \rho^+ \eta, D^{*+} \rightarrow \pi^+ D^0, \rho^+ \rightarrow \pi^0 \pi^+, \eta \rightarrow \pi^0 \pi^+ \pi^-, D^0 \rightarrow e^+ \nu_e K^-$ $(e^+e^- \rightarrow e^+ \nu_e \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- K^+ K^- K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	14	14	1	15
16	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow e^- \bar{\nu}_e D^{*+}, \bar{B}^0 \rightarrow \pi^0 \pi^- \bar{K}^* K^+ D^0, D^{*+} \rightarrow \pi^+ D^0, \bar{K}^* \rightarrow \pi^0 \bar{K}^0,$ $D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, D^0 \rightarrow \pi^0 \pi^+ K^-, \bar{K}^0 \rightarrow K_L, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	15	15	1	16
17	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^0 K^+ D_s^{*-}, \bar{B}^0 \rightarrow \pi^+ \pi^+ \pi^- \pi^- \omega \bar{K}^0, D_s^{*-} \rightarrow D_s^- \gamma, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $\bar{K}^0 \rightarrow K_S, D_s^- \rightarrow \rho^- \eta, K_S \rightarrow \pi^+ \pi^-, \rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \pi^0 \pi^0 \pi^0$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	16	16	1	17
18	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^+ \bar{D}^{*-} D^0, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu \pi^+ D^{*0}, \bar{D}^{*-} \rightarrow \pi^0 D^-, D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S,$ $D^{*0} \rightarrow \pi^0 D^0, D^- \rightarrow \pi^0 K_L \pi^-, K_S \rightarrow \pi^+ \pi^-, D^0 \rightarrow \pi^+ K_1^-, K_1^- \rightarrow \rho^- \bar{K}^0, \rho^- \rightarrow \pi^0 \pi^-,$ $\bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	17	17	1	18
19	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \bar{K}^0 D^{*+} \bar{D}^{*-}, \bar{B}^0 \rightarrow e^- \bar{\nu}_e \pi^+ D^{*0}, \bar{K}^0 \rightarrow K_L, D^{*+} \rightarrow \pi^+ D^0,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*0} \rightarrow \pi^0 D^0, D^0 \rightarrow \pi^0 \pi^+ K^{*-}, \bar{D}^0 \rightarrow \pi^- K_1^+, D^0 \rightarrow \pi^0 \pi^+ K^-, K^{*-} \rightarrow \pi^- \bar{K}^0,$ $K_1^+ \rightarrow \pi^0 \pi^+ K^0, \bar{K}^0 \rightarrow K_S, K^0 \rightarrow K_S, K_S \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	18	18	1	19
20	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^+ D^-, \bar{B}^0 \rightarrow \pi^+ K^0 \bar{K}^0 \bar{K}^0 K^{*-}, \rho^+ \rightarrow \pi^0 \pi^+, D^- \rightarrow \pi^- \eta,$ $K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_L, K^* \rightarrow \pi^- K^+, K^{*-} \rightarrow \pi^- \bar{K}^0, \eta \rightarrow \pi^0 \pi^0 \pi^0,$ $K_S \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L K_L K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	19	19	1	20

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
21	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e D^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^+, D^- \rightarrow \mu^-\bar{\nu}_\mu K^*, D^+ \rightarrow \pi^0\pi^0\pi^+\bar{K}^0,$ $K^* \rightarrow \pi^0 K^0, \bar{K}^0 \rightarrow K_L, K^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L K_L \pi^+ \gamma\gamma\gamma\gamma\gamma\gamma)$	20	20	1	21
22	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0 K^0 \eta_c, \bar{B}^0 \rightarrow \pi^0 D^{*+} D_s^-, \rho^0 \rightarrow \pi^+\pi^-, K^0 \rightarrow K_S,$ $\eta_c \rightarrow \pi^+\pi^- K^+ K^-, D^{*+} \rightarrow \pi^+ D^0, D_s^- \rightarrow \pi^+\pi^-\pi^-, K_S \rightarrow \pi^+\pi^-, D^0 \rightarrow \pi^-\rho^+, \rho^+ \rightarrow \pi^0\pi^+$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+ K^+ K^- \gamma\gamma\gamma\gamma)$	21	21	1	22
23	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^-\bar{D}^0 D_s^+, B^0 \rightarrow \pi^0\pi^+\eta\omega\bar{D}^{*-}, \bar{D}^0 \rightarrow \pi^-\omega K^+, D_s^+ \rightarrow e^+\nu_e\eta,$ $\eta \rightarrow \gamma\gamma, \omega \rightarrow \pi^0\pi^+\pi^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \omega \rightarrow \pi^0\pi^+\pi^-, \eta \rightarrow \pi^0\pi^+\pi^-, \bar{D}^0 \rightarrow K_L\pi^+\pi^-,$ $K_L \rightarrow e^-\nu_e\pi^+$ $(e^+e^- \rightarrow e^+e^-\nu_e\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^+ K^+ \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	22	22	1	23
24	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e D_1'^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^+, D_1'^- \rightarrow \pi^-\bar{D}^{*0}, D^+ \rightarrow \pi^0\pi^+\phi,$ $\bar{D}^{*0} \rightarrow \bar{D}^0\gamma, \phi \rightarrow K_L K_S, \bar{D}^0 \rightarrow \rho^0\pi^- K^+, K_L \rightarrow \mu^+\nu_\mu\pi^-, K_S \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+\nu_e\mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+ K^+ \gamma\gamma\gamma)$	23	23	1	24
25	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\pi^-\rho^+\rho^+\eta D^-, \bar{B}^0 \rightarrow \pi^-\bar{\Delta}^0\Lambda_c^+, \rho^0 \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+,$ $\rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \pi^0\pi^0\pi^0, D^- \rightarrow \mu^-\bar{\nu}_\mu K^*, \bar{\Delta}^0 \rightarrow \pi^0\bar{n}, \Lambda_c^+ \rightarrow K^{*+}\Lambda, K^* \rightarrow \pi^- K^+,$ $K^{*+} \rightarrow \pi^0 K^+, \Lambda \rightarrow \pi^0 n$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^+ K^+ K^+ n \bar{n} \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	24	24	1	25
26	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^+\rho^+\rho^-\omega D^-, \bar{B}^0 \rightarrow D^+ D_{s0}^{*-}, \rho^+ \rightarrow \pi^0\pi^+, \rho^+ \rightarrow \pi^0\pi^+,$ $\rho^- \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow K_S K^{*-}, D^+ \rightarrow \pi^+ K^0 \bar{K}^*, D_{s0}^{*-} \rightarrow \pi^0 D_s^-, K_S \rightarrow \pi^+\pi^-,$ $K^{*-} \rightarrow \pi^- \bar{K}^0, K^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+ K^-, D_s^- \rightarrow K_L \pi^+\pi^-\pi^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L K_L K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+ K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	25	25	1	26
27	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^-\rho^+\omega\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 K^0 K^- D^+, \rho^+ \rightarrow \pi^0\pi^+, \omega \rightarrow \pi^0\pi^+\pi^-,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, K^0 \rightarrow K_L, D^+ \rightarrow \pi^+\pi^+\pi^+\pi^- K^-, \bar{D}^0 \rightarrow e^-\bar{\nu}_e\pi^+ K^0, K^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^+ K^- K^- \gamma\gamma\gamma\gamma\gamma\gamma)$	26	26	1	27
28	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^+ K^0 D^- D^{*0}, \bar{B}^0 \rightarrow \pi^0\rho^0 K^0 K^- D^{*+}, K^0 \rightarrow K_L, D^- \rightarrow \rho^- K^*,$ $D^{*0} \rightarrow D^0\gamma, \rho^0 \rightarrow \pi^+\pi^-, K^0 \rightarrow K_L, D^{*+} \rightarrow \pi^0 D^+, \rho^- \rightarrow \pi^0\pi^-, K^* \rightarrow \pi^- K^+,$ $D^0 \rightarrow \pi^0\pi^+ K^{*-}, K_L \rightarrow \mu^-\nu_\mu\pi^+, D^+ \rightarrow \pi^+\pi^+ K^-, K^{*-} \rightarrow \pi^- \bar{K}^0, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^-\nu_\mu K_L K_L \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^+ K^+ K^- K^- \gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	27	27	1	28
29	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \bar{B}^0 \rightarrow \rho^0\pi^- D^{*+}, D^{*+} \rightarrow \pi^+ D^0, \rho^0 \rightarrow \pi^+\pi^-,$ $D^{*+} \rightarrow \pi^+ D^0, D^0 \rightarrow \pi^0\pi^+ K^-, D^0 \rightarrow e^+\nu_e K^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\pi^+\pi^+\pi^+\pi^-\pi^- K^- K^- \gamma\gamma)$	28	28	1	29
30	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu\bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^+ \rightarrow \pi^0\pi^0\pi^+\pi^+ K^-,$ $\bar{D}^0 \rightarrow \pi^+\pi^-\pi^- K^+$ $(e^+e^- \rightarrow \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^- K^+ K^- \gamma\gamma\gamma\gamma)$	29	29	1	30

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
31	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- D^- \bar{n} p, \bar{B}^0 \rightarrow K^{*-} D^+ \bar{D}^0, D^- \rightarrow K^* a_1^-, K^{*-} \rightarrow \pi^- \bar{K}^0,$ $D^+ \rightarrow \pi^0 \pi^+ \phi, \bar{D}^0 \rightarrow \mu^- \bar{\nu}_\mu K^+, K^* \rightarrow \pi^- K^+, a_1^- \rightarrow \rho^0 \pi^-, \bar{K}^0 \rightarrow K_S, \phi \rightarrow K^+ K^-,$ $\rho^0 \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^+ K^- \bar{n} p \gamma \gamma)$	30	30	1	31
32	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \rho^0 \pi^+ \pi^- \rho^- K^+ K^{*+} D_s^-, \bar{B}^0 \rightarrow K^- \bar{\Delta}^0 \Lambda_c^+, \rho^0 \rightarrow \pi^+ \pi^-, \rho^- \rightarrow \pi^0 \pi^-,$ $K^{*+} \rightarrow \pi^+ K^0, D_s^- \rightarrow \pi^+ \pi^- K_S K^-, \bar{\Delta}^0 \rightarrow \pi^0 \bar{n}, \Lambda_c^+ \rightarrow \mu^+ \nu_\mu \Lambda, K^0 \rightarrow K_S, K_S \rightarrow \pi^+ \pi^-,$ $\Lambda \rightarrow \pi^0 n, K_S \rightarrow \pi^0 \pi^0$ $(e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	31	31	1	32
33	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \bar{D}^{*-} D_s^{*+}, \bar{B}^0 \rightarrow \pi^0 \pi^+ \pi^- \pi^- D^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D_s^{*+} \rightarrow \pi^0 D_s^+,$ $D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow \pi^0 \pi^+ \pi^- K^*, D_s^+ \rightarrow \pi^0 \pi^0 \pi^+, D^+ \rightarrow e^+ \nu_e \pi^+ K^-, K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	32	32	1	33
34	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^+ \bar{D}^{*-} D^{*0}, \bar{B}^0 \rightarrow \bar{K}^0 \bar{n} \Sigma_c^0, \bar{D}^{*-} \rightarrow \pi^0 D^-, D^{*0} \rightarrow \pi^0 D^0,$ $\bar{K}^0 \rightarrow K_S, \Sigma_c^0 \rightarrow \pi^- \Lambda_c^+, D^- \rightarrow K^* a_1^-, D^0 \rightarrow \pi^0 \pi^+ K^-, K_S \rightarrow \pi^0 \pi^0, \Lambda_c^+ \rightarrow p f_0(980),$ $K^* \rightarrow \pi^0 K^0, a_1^- \rightarrow \pi^0 \rho^-, f_0(980) \rightarrow \pi^+ \pi^-, K^0 \rightarrow K_L, \rho^- \rightarrow \pi^0 \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	33	33	1	34
35	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \bar{D}^{*0} \Delta^+ \bar{\Delta}^+, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^{*+}, \bar{D}^{*0} \rightarrow \pi^0 \bar{D}^0, \Delta^+ \rightarrow \pi^+ n,$ $\bar{\Delta}^+ \rightarrow \pi^- \bar{n}, D^{*+} \rightarrow \pi^+ D^0, \bar{D}^0 \rightarrow e^- \bar{\nu}_e K_2^{*+}, D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, K_2^{*+} \rightarrow \pi^0 K^+, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma)$	34	34	1	35
36	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^0 \pi^+ \omega D^-, \bar{B}^0 \rightarrow \rho^0 \pi^- \bar{K}^0 \bar{K}^* D_s^{*+}, \omega \rightarrow \pi^0 \pi^+ \pi^-, D^- \rightarrow \rho^- K^*,$ $\rho^0 \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+ K^-, D_s^{*+} \rightarrow D_s^+ \gamma, \rho^- \rightarrow \pi^0 \pi^-, K^* \rightarrow \pi^- K^+,$ $D_s^+ \rightarrow \pi^+ \pi^+ \pi^- \omega, \omega \rightarrow \pi^0 \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	35	35	1	36
37	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \pi^- \bar{\Delta}^+ \Sigma_c^{++}, \bar{B}^0 \rightarrow \pi^+ \pi^- \pi^- \eta K^0 \bar{K}^0 D^+, \bar{\Delta}^+ \rightarrow \pi^0 \bar{p}, \Sigma_c^{++} \rightarrow \pi^+ \Lambda_c^+,$ $\eta \rightarrow \pi^0 \pi^0 \pi^0, K^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S, D^+ \rightarrow \pi^+ K_S, \Lambda_c^+ \rightarrow \pi^0 \bar{K}^0 p, K_S \rightarrow \pi^0 \pi^0,$ $K_S \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	36	36	1	37
38	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^+ \pi^- K^+ \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^+ \pi^- \rho^+ \rho^- K^- D_s^{*+}, \bar{D}^{*-} \rightarrow \pi^0 D^-, \rho^+ \rightarrow \pi^0 \pi^+,$ $\rho^- \rightarrow \pi^0 \pi^-, D_s^{*+} \rightarrow D_s^+ \gamma, D^- \rightarrow e^- \bar{\nu}_e K^*, D_s^+ \rightarrow \bar{K}^* K^{*+}, K^* \rightarrow \pi^- K^+, \bar{K}^* \rightarrow \pi^0 \bar{K}^0,$ $K^{*+} \rightarrow \pi^+ K^0, \bar{K}^0 \rightarrow K_L, K^0 \rightarrow K_L, K_L \rightarrow \pi^0 \pi^0 \pi^0$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	37	37	1	38
39	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \bar{D}^{*-} D_s^{*+}, \bar{B}^0 \rightarrow e^- \bar{\nu}_e D_2^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D_s^{*+} \rightarrow \pi^0 D_s^+,$ $D_2^{*+} \rightarrow \pi^0 D^{*+}, \bar{D}^0 \rightarrow \rho^- K^{*+}, D_s^+ \rightarrow \rho^+ \eta, D^{*+} \rightarrow \pi^+ D^0, \rho^- \rightarrow \pi^0 \pi^-, K^{*+} \rightarrow \pi^+ K^0,$ $\rho^+ \rightarrow \pi^0 \pi^+, \eta \rightarrow \gamma \gamma, D^0 \rightarrow K_L \phi, K^0 \rightarrow K_L, \phi \rightarrow \pi^0 \rho^0, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	38	38	1	39

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
40	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^- K^+ D^0 \bar{D}^{*0}, \bar{B}^0 \rightarrow \pi^0 \bar{K}^* J/\psi, D^0 \rightarrow e^+ \nu_e K^{*-}, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma,$ $\bar{K}^* \rightarrow \pi^+ K^-, J/\psi \rightarrow \pi^0 \pi^+ \pi^- \eta, K^{*-} \rightarrow \pi^- \bar{K}^0, \bar{D}^0 \rightarrow K^+ a_1^-, \eta \rightarrow \pi^0 \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L,$ $a_1^- \rightarrow \pi^0 \rho^-, K_L \rightarrow \mu^- \nu_\mu \pi^+, \rho^- \rightarrow \pi^0 \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \mu^- \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	39	39	1	40
41	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^* D^{*+} \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^- K^0 D^+, K^* \rightarrow \pi^0 K^0, D^{*+} \rightarrow \pi^+ D^0,$ $\bar{D}^{*-} \rightarrow \pi^0 D^-, K^0 \rightarrow K_L, D^+ \rightarrow \pi^0 \pi^0 \pi^+ \pi^+ K^-, K^0 \rightarrow K_S, D^0 \rightarrow \mu^+ \nu_\mu K^-, D^- \rightarrow \pi^0 \pi^- K^*,$ $\pi^0 \rightarrow e^+ e^-, K_S \rightarrow \pi^+ \pi^-, K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow e^+ e^- \mu^+ \nu_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	40	40	1	41
42	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \eta D^-, \bar{B}^0 \rightarrow \pi^0 \pi^0 \pi^0 \pi^- \rho^+ K^+ K^- D^0, \eta \rightarrow \pi^0 \pi^+ \pi^-, D^- \rightarrow K_L \pi^-,$ $\rho^+ \rightarrow \pi^0 \pi^+, D^0 \rightarrow K^- a_1^+, a_1^+ \rightarrow \pi^0 \rho^+, \rho^+ \rightarrow \pi^0 \pi^+$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	41	41	1	42
43	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu \pi^- \bar{D}^{*0}, \bar{B}^0 \rightarrow \rho^0 \pi^+ K^0 D^-, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma, \rho^0 \rightarrow \pi^+ \pi^-,$ $K^0 \rightarrow K_L, D^- \rightarrow \pi^0 K_L \pi^-, \bar{D}^0 \rightarrow \rho^- \bar{K}^{*+}, \rho^- \rightarrow \pi^0 \pi^-, K^{*+} \rightarrow \pi^0 K^+$ $(e^+e^- \rightarrow \mu^+ \nu_\mu K_L K_L \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma)$	42	42	1	43
44	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^- \bar{D}^0 D_s^+, \bar{B}^0 \rightarrow \pi^+ \pi^- D^+ D_s^{*-}, \bar{D}^0 \rightarrow \pi^+ \rho^-, D_s^+ \rightarrow \pi^+ \phi,$ $D^+ \rightarrow \mu^+ \nu_\mu \pi^+ K^-, D_s^{*-} \rightarrow D_s^- \gamma, \rho^- \rightarrow \pi^0 \pi^-, \phi \rightarrow K_L K_S, D_s^- \rightarrow \rho^- \eta', K_S \rightarrow \pi^0 \pi^0,$ $\rho^- \rightarrow \pi^0 \pi^-, \eta' \rightarrow \gamma \gamma$ $(e^+e^- \rightarrow \mu^+ \nu_\mu K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	43	43	1	44
45	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- \rho^+ \omega \bar{K}^0 K^* \bar{D}^{*-}, \bar{B}^0 \rightarrow K_S J/\psi, \rho^+ \rightarrow \pi^0 \pi^+, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $\bar{K}^0 \rightarrow K_L, K^* \rightarrow \pi^- K^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, K_S \rightarrow \pi^+ \pi^-, J/\psi \rightarrow \pi^0 \omega \omega, \bar{D}^0 \rightarrow \pi^0 \pi^- K^+,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-, \omega \rightarrow \pi^0 \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	44	44	1	45
46	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^+ \bar{D}^{*-} D^{*0}, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*0} \rightarrow \pi^0 D^0,$ $D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^*, \bar{D}^0 \rightarrow \pi^- \eta K^+, D^0 \rightarrow e^+ \nu_e K^-, \bar{K}^* \rightarrow \pi^0 \bar{K}^0, \eta \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^0 \pi^0$ $(e^+e^- \rightarrow e^+ \nu_e \mu^+ \mu^- \nu_\mu \bar{\nu}_\mu \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	45	45	1	46
47	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow D^+ a_1^-, \bar{B}^0 \rightarrow \pi^0 \rho^+ \omega K^{*-} D^{*0}, D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^0, a_1^- \rightarrow \pi^0 \rho^-,$ $\rho^+ \rightarrow \pi^0 \pi^+, \omega \rightarrow \pi^0 \pi^+ \pi^-, K^{*-} \rightarrow \pi^0 K^-, D^{*0} \rightarrow \pi^0 D^0, \bar{K}^0 \rightarrow K_L, \rho^- \rightarrow \pi^0 \pi^-,$ $D^0 \rightarrow K_L \omega, \omega \rightarrow \pi^0 \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^+ \nu_\mu K_L K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	46	46	1	47
48	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow D^+ D^-, \bar{B}^0 \rightarrow D^- D_s^{*+}, D^+ \rightarrow e^+ \nu_e \pi^+ K^-, D^- \rightarrow \mu^- \bar{\nu}_\mu K^*,$ $D^- \rightarrow \pi^0 \pi^- K_S, D_s^{*+} \rightarrow D_s^+ \gamma, K^* \rightarrow \pi^- K^+, K_S \rightarrow \pi^0 \pi^0, D_s^+ \rightarrow \pi^+ \phi, \phi \rightarrow K_L K_S,$ $K_L \rightarrow e^+ \nu_e \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^+ e^+ \nu_e \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma)$	47	47	1	48

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
49	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \tau^- \bar{\nu}_\tau D_2^{*+}, \bar{B}^0 \rightarrow D^{*+} \Delta^- \bar{\Delta}^0, \tau^- \rightarrow \mu^- \bar{\nu}_\mu \nu_\tau, D_2^{*+} \rightarrow \pi^+ D^0,$ $D^{*+} \rightarrow \pi^0 D^+, \Delta^- \rightarrow \pi^- n, \bar{\Delta}^0 \rightarrow \pi^+ \bar{p}, D^0 \rightarrow \pi^0 \pi^+ K^-, D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^0, \bar{K}^0 \rightarrow K_L,$ $K_L \rightarrow e^+ \nu_e \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \mu^+ \mu^- \nu_\mu \bar{\nu}_\mu \nu_\tau \bar{\nu}_\tau \pi^+ \pi^+ \pi^+ \pi^- \pi^- K^- n \bar{p} \gamma \gamma \gamma \gamma)$	48	48	1	49
50	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^0 \rho^+ \bar{K}^0 K^* D^-, \bar{B}^0 \rightarrow \pi^0 \rho^0 \pi^+ \pi^- \rho^- \eta D^{*+}, \rho^+ \rightarrow \pi^0 \pi^+, \bar{K}^0 \rightarrow K_L,$ $K^* \rightarrow \pi^- K^+, D^- \rightarrow \mu^- \bar{\nu}_\mu K^0, \rho^0 \rightarrow \pi^+ \pi^-, \rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \gamma \gamma, D^{*+} \rightarrow \pi^0 D^+,$ $K^0 \rightarrow K_S, D^+ \rightarrow K_L \pi^+, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	49	49	1	50
51	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow K^+ \bar{D}^{*-} D^{*0}, \bar{B}^0 \rightarrow \pi^- \bar{\Delta}^0 \Sigma_c^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*0} \rightarrow \pi^0 D^0,$ $\bar{\Delta}^0 \rightarrow \pi^0 \bar{n}, \Sigma_c^{*+} \rightarrow \pi^0 \Lambda_c^+, \bar{D}^0 \rightarrow \mu^- \bar{\nu}_\mu K^+, D^0 \rightarrow \pi^+ K^-, \Lambda_c^+ \rightarrow \rho^0 \pi^+ \Lambda, \rho^0 \rightarrow \pi^+ \pi^-,$ $\Lambda \rightarrow \pi^- p$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- n \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma)$	50	50	1	51
52	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^+ K^0 K^0 D_s^-, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^+, K^0 \rightarrow K_L, K^0 \rightarrow K_L,$ $D_s^- \rightarrow \rho^- \phi, D^+ \rightarrow \pi^+ \pi^+ K^-, \rho^- \rightarrow \pi^0 \pi^-, \phi \rightarrow K^+ K^-$ $(e^+e^- \rightarrow \mu^- \bar{\nu}_\mu K_L K_L \pi^+ \pi^+ \pi^+ \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma)$	51	51	1	52
53	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \rho^0 \rho^- D^{*+} \gamma, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \rho^0 \rightarrow \pi^+ \pi^-,$ $\rho^- \rightarrow \pi^0 \pi^-, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow e^- \bar{\nu}_e K^+, D^+ \rightarrow \pi^0 \pi^+ K^+ K^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	52	52	1	53
54	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^+ \pi^+ \pi^- \pi^- \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \pi^0 \pi^- \pi^- \rho^+ D^{*+}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \rho^+ \rightarrow \pi^0 \pi^+,$ $D^{*+} \rightarrow \pi^+ D^0, \bar{D}^0 \rightarrow \pi^+ \pi^- K_S K_S, D^0 \rightarrow \pi^0 \pi^0 \pi^0 \pi^+ \pi^-, K_S \rightarrow \pi^0 \pi^0, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	53	53	1	54
55	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow D^{*+} D_s^{*-}, \bar{B}^0 \rightarrow \pi^- \bar{\Delta}^+ \Sigma_c^{*+}, D^{*+} \rightarrow \pi^+ D^0, D_s^{*-} \rightarrow D_s^- \gamma,$ $\bar{\Delta}^+ \rightarrow \pi^- \bar{n}, \Sigma_c^{*+} \rightarrow \pi^+ \Lambda_c^+, D^0 \rightarrow \pi^0 \pi^+ K^-, D_s^- \rightarrow \rho^- \eta, \Lambda_c^+ \rightarrow K^{*+} \Sigma^{*0}, \rho^- \rightarrow \pi^0 \pi^-,$ $\eta \rightarrow \pi^0 \pi^+ \pi^-, K^{*+} \rightarrow \pi^0 K^+, \Sigma^{*0} \rightarrow \pi^0 \Lambda, \Lambda \rightarrow \pi^0 n$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- K^+ K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	54	54	1	55
56	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 B^0, B^0 \rightarrow \pi^0 \pi^+ \pi^+ \pi^- \bar{D}^{*-}, B^0 \rightarrow \pi^+ \omega \bar{D}^{*-} \bar{p} \Delta^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \Delta^+ \rightarrow \pi^0 p, \bar{D}^0 \rightarrow \pi^- \eta K^+, \bar{D}^0 \rightarrow \rho^0 K^*, \eta \rightarrow \pi^0 \pi^0 \pi^0, \rho^0 \rightarrow \pi^+ \pi^-,$ $K^* \rightarrow \pi^- K^+$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ p \bar{p} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	55	55	1	56
57	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^+ \pi^+ \pi^- \bar{D}^{*-}, \bar{B}^0 \rightarrow K^- D^+ \bar{D}^{*0}, \bar{D}^{*-} \rightarrow \pi^0 D^-, D^+ \rightarrow \pi^+ \pi^+ K^-,$ $\bar{D}^{*0} \rightarrow \pi^0 \bar{D}^0, D^- \rightarrow \pi^0 \pi^- K^*, \bar{D}^0 \rightarrow K^+ a_1^-, K^* \rightarrow \pi^- K^+, a_1^- \rightarrow \rho^0 \pi^-, \rho^0 \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	56	56	1	57
58	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- K^0 \chi_{c1}, \bar{B}^0 \rightarrow \pi^0 \rho^0 \rho^- D^{*+}, K^0 \rightarrow K_L, \chi_{c1} \rightarrow \rho^0 \pi^+ K^0 K^{*-},$ $\rho^0 \rightarrow \pi^+ \pi^-, \rho^- \rightarrow \pi^0 \pi^-, D^{*+} \rightarrow \pi^+ D^0, \rho^0 \rightarrow \pi^+ \pi^-, K^0 \rightarrow K_L, K^{*-} \rightarrow \pi^- \bar{K}^0,$ $D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, \bar{K}^0 \rightarrow K_L, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma)$	57	57	1	58

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
59	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow \pi^+D^0,$ $\bar{D}^0 \rightarrow \pi^+K_S K^-, D^0 \rightarrow e^+\nu_e K^-, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^+e^-\nu_e\nu_e\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-K^-K^-)$	58	58	1	59
60	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}D^{*0}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, K^{*+} \rightarrow \pi^+K^0, \bar{D}^{*-} \rightarrow \pi^0D^-,$ $D^{*0} \rightarrow D^0\gamma, D^{*+} \rightarrow \pi^+D^0, K^0 \rightarrow K_L, D^- \rightarrow e^-\bar{\nu}_e\pi^-K^+, D^0 \rightarrow K_L\pi^-K^+, D^0 \rightarrow e^+\nu_e K^{*-},$ $K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\mu^-\bar{\nu}_\mu K_L K_L \pi^+\pi^+\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma)$	59	59	1	60
61	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}\bar{\Delta}^-n, \bar{B}^0 \rightarrow \pi^+\bar{\Delta}^+\Sigma_c^{*0}, \bar{D}^{*-} \rightarrow D^-\gamma, \bar{\Delta}^- \rightarrow \pi^+\bar{n},$ $\bar{\Delta}^+ \rightarrow \pi^0\bar{p}, \Sigma_c^{*0} \rightarrow \pi^-\Lambda_c^+, D^- \rightarrow e^-\bar{\nu}_e K^*, \Lambda_c^+ \rightarrow \pi^0\pi^+\Lambda, K^* \rightarrow \pi^-K^+, \Lambda \rightarrow \pi^-p$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-\pi^-K^+n\bar{n}p\bar{p}\gamma\gamma\gamma\gamma\gamma)$	60	60	1	61
62	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e D_1^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, D_1^- \rightarrow \pi^0\bar{D}^{*-}, D^{*+} \rightarrow \pi^+D^0,$ $\bar{D}^{*-} \rightarrow \pi^0D^-, D^0 \rightarrow K^-a_1^+, D^- \rightarrow e^-\bar{\nu}_e K^*, a_1^+ \rightarrow \rho^0\pi^+, K^* \rightarrow \pi^-K^+, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma)$	61	61	1	62
63	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^+\eta D^-, \bar{B}^0 \rightarrow D^+D_s^{*-}, \rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \pi^0\pi^0\pi^0,$ $D^- \rightarrow \pi^-\pi^-K^+, D^+ \rightarrow \pi^+\bar{K}_1^{\prime 0}, D_s^{*-} \rightarrow D_s^-\gamma, \bar{K}_1^{\prime 0} \rightarrow \pi^+K^{*-}, D_s^- \rightarrow \pi^+\pi^-K^-, K^{*-} \rightarrow \pi^0K^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	62	62	1	63
64	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^-K^0 J/\psi, \bar{B}^0 \rightarrow \rho^0\rho^-\eta D^+, K^0 \rightarrow K_L, J/\psi \rightarrow \pi^+\rho^-\eta,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^0\pi^0, D^+ \rightarrow e^+\nu_e \bar{K}^*, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \gamma\gamma,$ $\bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+\nu_e K_L \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	63	63	1	64
65	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^0\rho^+\pi^-D^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-,$ $D^- \rightarrow \pi^0\pi^-\phi, D^{*+} \rightarrow \pi^0D^+, \phi \rightarrow \pi^0\rho^0, \pi^0 \rightarrow e^+e^-, D^+ \rightarrow \pi^+\bar{K}_1^{\prime 0}, \rho^0 \rightarrow \pi^+\pi^-,$ $\bar{K}_1^{\prime 0} \rightarrow \pi^0\bar{K}^*, \pi^0 \rightarrow e^+e^-, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+e^+e^-e^-\mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	64	64	1	65
66	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \tau^-\bar{\nu}_\tau D^{*+}, \bar{B}^0 \rightarrow \pi^-\eta\omega\eta' D^+, \tau^- \rightarrow \nu_\tau\pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0,$ $\eta \rightarrow \gamma\gamma, \omega \rightarrow \pi^0\pi^+\pi^-, \eta' \rightarrow \pi^0\pi^0\eta, D^+ \rightarrow e^+\nu_e \bar{K}^*, D^0 \rightarrow e^+\nu_e K^{*-}, \eta \rightarrow \gamma\gamma,$ $\bar{K}^* \rightarrow \pi^0\bar{K}^0, K^{*-} \rightarrow \pi^-\bar{K}^0, \bar{K}^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+e^+\nu_e\nu_e\nu_\tau\bar{\nu}_\tau K_L \pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	65	65	1	66
67	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow D^+a_1^-, \bar{B}^0 \rightarrow \pi^0\eta' D^{*+}\bar{D}^{*-}, D^+ \rightarrow \mu^+\nu_\mu \bar{K}^0, a_1^- \rightarrow \rho^0\pi^-,$ $\eta' \rightarrow \pi^+\pi^-\eta, D^{*+} \rightarrow \pi^+D^0, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \bar{K}^0 \rightarrow K_S, \rho^0 \rightarrow \pi^+\pi^-, \eta \rightarrow \pi^0\pi^0\pi^0,$ $D^0 \rightarrow e^+\nu_e K^-, \bar{D}^0 \rightarrow K_S K^+K^-, K_S \rightarrow \pi^0\pi^0, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+\nu_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	66	66	1	67
68	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0\rho^0\rho^0\rho^-D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \rho^0 \rightarrow \pi^+\pi^-,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow K^+a_1^-, D^0 \rightarrow \pi^0\pi^+K^-, a_1^- \rightarrow \rho^0\pi^-,$ $\rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	67	67	1	68

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
79	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow D^-a_1^+\gamma, \bar{B}^0 \rightarrow \pi^0\rho^-\eta D^{*+}, D^- \rightarrow e^-\bar{\nu}_e K^0, a_1^+ \rightarrow \pi^0\rho^+,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^0\pi^0, D^{*+} \rightarrow \pi^+D^0, K^0 \rightarrow K_L, \rho^+ \rightarrow \pi^0\pi^+,$ $D^0 \rightarrow e^+\nu_e\pi^0 K^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	78	78	1	79
80	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow \bar{K}^0 D^- D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \bar{K}^0 \rightarrow K_L,$ $D^- \rightarrow \pi^0\pi^- K_S, D^{*+} \rightarrow \pi^+D^0, \bar{D}^0 \rightarrow \pi^+\pi^- K^*, K_S \rightarrow \pi^+\pi^-, D^0 \rightarrow \pi^+\pi^- \bar{K}^*, K^* \rightarrow \pi^-K^+,$ $\bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+\nu_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma)$	79	79	1	80
81	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D_1'^-, \bar{B}^0 \rightarrow \pi^+\pi^-\rho^-\omega D^+, D_1'^- \rightarrow \pi^0\bar{D}^{*-}, \rho^- \rightarrow \pi^0\pi^-,$ $\omega \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow \pi^+\pi^+K^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \pi^0 \rightarrow e^+e^-, \bar{D}^0 \rightarrow \pi^-\rho^+, \rho^+ \rightarrow \pi^0\pi^+$ $(e^+e^- \rightarrow e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma)$	80	80	1	81
82	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^+, \bar{B}^0 \rightarrow \pi^+\pi^+\pi^-\pi^-\pi^-D^{*+}, D^+ \rightarrow \pi^0\pi^+ \bar{K}^*, D^{*+} \rightarrow \pi^+D^0,$ $\bar{K}^* \rightarrow \pi^+K^-, D^0 \rightarrow \pi^+\omega K^-, \omega \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-K^-\gamma\gamma\gamma\gamma)$	81	81	1	82
83	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \tau^-\bar{\nu}_\tau D^+, \bar{B}^0 \rightarrow \pi^+\pi^+\pi^-\pi^-\pi^-D^+, \tau^- \rightarrow \nu_\tau\pi^+\pi^-\pi^-, D^+ \rightarrow K_L a_1^+,$ $D^+ \rightarrow \pi^0\pi^+ \bar{K}^*, a_1^+ \rightarrow \rho^0\pi^+, \bar{K}^* \rightarrow \pi^+K^-, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma)$	82	82	1	83
84	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^+\omega D^-, B^0 \rightarrow \rho^0\pi^- K^+ D^0 \bar{D}^{*0}, \omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow \pi^+\pi^-\pi^- K_S,$ $\rho^0 \rightarrow \pi^+\pi^-, D^0 \rightarrow K^- a_1^+, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, K_S \rightarrow \pi^+\pi^-, a_1^+ \rightarrow \rho^0\pi^+, \bar{D}^0 \rightarrow \pi^0\pi^- K^+,$ $\rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	83	83	1	84
85	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu X_u^-, \bar{B}^0 \rightarrow \pi^0\pi^-\omega D^{*+}, X_u^- \rightarrow K^*K^-, \omega \rightarrow \pi^0\pi^+\pi^-,$ $D^{*+} \rightarrow \pi^+D^0, K^* \rightarrow \pi^0K^0, D^0 \rightarrow \pi^+\pi^- K_S, K^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	84	84	1	85
86	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^+\pi^+\rho^- D^-, \bar{B}^0 \rightarrow e^-\bar{\nu}_e D^{*+}, \rho^- \rightarrow \pi^0\pi^-, D^- \rightarrow \pi^0\pi^- K^+ K^-,$ $D^{*+} \rightarrow \pi^+D^0, D^0 \rightarrow \pi^0 K_L$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	85	85	1	86
87	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\rho^+\rho^-\omega D^-, \bar{B}^0 \rightarrow D^{*+} D_s^-, \rho^+ \rightarrow \pi^0\pi^+, \rho^- \rightarrow \pi^0\pi^-,$ $\omega \rightarrow \pi^0\pi^+\pi^-, D^- \rightarrow e^-\bar{\nu}_e K^0, D^{*+} \rightarrow \pi^+D^0, D_s^- \rightarrow \rho^-\eta, \pi^0 \rightarrow e^+e^-, K^0 \rightarrow K_L,$ $D^0 \rightarrow \pi^+\pi^- \bar{K}^*, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^+\pi^-, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow e^+e^-e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	86	86	1	87
88	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D_1'^-, \bar{B}^0 \rightarrow \rho^- D_2^{*+} \gamma, D_1'^- \rightarrow \pi^-\bar{D}^{*0}, \rho^- \rightarrow \pi^0\pi^-,$ $D_2^{*+} \rightarrow \pi^+D^{*0}, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma, D^{*0} \rightarrow D^0 \gamma, \bar{D}^0 \rightarrow \rho^- K^{*+}, D^0 \rightarrow \mu^+\nu_\mu K^-, \rho^- \rightarrow \pi^0\pi^-,$ $K^{*+} \rightarrow \pi^+K^0, K^0 \rightarrow K_L$ $(e^+e^- \rightarrow \mu^+\mu^+\nu_\mu\nu_\mu K_L\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	87	87	1	88

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
99	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow D^{*+} \bar{D}^{*-} \gamma \gamma, \bar{B}^0 \rightarrow \pi^0 \pi^0 \rho^0 \pi^+ \pi^- \rho^- D^+, D^{*+} \rightarrow \pi^+ D^0, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0,$ $\rho^0 \rightarrow \pi^+ \pi^-, \rho^- \rightarrow \pi^0 \pi^-, D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^*, D^0 \rightarrow \pi^0 \pi^+ K^-, \bar{D}^0 \rightarrow \pi^0 \pi^- K^+, \bar{K}^* \rightarrow \pi^+ K^-$ $(e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	98	98	1	99
100	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \rho^- \bar{n} \Sigma_c^+, \bar{B}^0 \rightarrow \pi^0 \pi^+ \pi^+ \pi^- \pi^- \pi^- D^{*+}, \rho^- \rightarrow \pi^0 \pi^-, \Sigma_c^+ \rightarrow \pi^0 \Lambda_c^+,$ $D^{*+} \rightarrow \pi^+ D^0, \Lambda_c^+ \rightarrow e^+ \nu_e \Sigma^{*0}, D^0 \rightarrow \mu^+ \nu_\mu \pi^- \bar{K}^0, \Sigma^{*0} \rightarrow \pi^0 \Lambda, \bar{K}^0 \rightarrow K_S, \Lambda \rightarrow \pi^- p,$ $K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	99	99	1	100
101	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^+ \pi^+ \pi^- \bar{D}^{*-}, \bar{B}^0 \rightarrow \eta K^* K^{*-} D^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \eta \rightarrow \pi^0 \pi^0 \pi^0,$ $K^* \rightarrow \pi^0 K^0, K^{*-} \rightarrow \pi^- \bar{K}^0, D^+ \rightarrow K_S K^{*+}, \bar{D}^0 \rightarrow e^- \bar{\nu}_e \pi^+, K^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^0 \pi^0, K^{*+} \rightarrow \pi^+ K^0, K_S \rightarrow \pi^+ \pi^-, K^0 \rightarrow K_S, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow e^- \bar{\nu}_e K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	100	100	1	101
102	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \eta K^* D^0 \bar{D}^0, \bar{B}^0 \rightarrow \rho^- D^{*+}, \eta \rightarrow \pi^0 \pi^0 \pi^0, K^* \rightarrow \pi^- K^+,$ $D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, \bar{D}^0 \rightarrow \pi^- K^+, \rho^- \rightarrow \pi^0 \pi^-, D^{*+} \rightarrow \pi^0 D^+, K_S \rightarrow \pi^+ \pi^-, D^+ \rightarrow \pi^+ \pi^+ K^-$ $(e^+e^- \rightarrow \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	101	101	1	102
103	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \mu^+ \nu_\mu D_1^-, \bar{B}^0 \rightarrow \pi^+ \rho^- \bar{K}^* D^0 \bar{D}^0, D_1^- \rightarrow \pi^- \bar{D}^{*0}, \rho^- \rightarrow \pi^0 \pi^-,$ $\bar{K}^* \rightarrow \pi^+ K^-, D^0 \rightarrow \mu^+ \nu_\mu K^-, \bar{D}^0 \rightarrow \mu^- \bar{\nu}_\mu K^+, \bar{D}^{*0} \rightarrow \bar{D}^0 \gamma, \bar{D}^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^+ \mu^+ \mu^- \nu_\mu \nu_\mu \bar{\nu}_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma)$	102	102	1	103
104	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \pi^0 \pi^+ \rho^+ K^* K^- \bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^- \bar{\nu}_\mu D^{*+}, \rho^+ \rightarrow \pi^0 \pi^+, K^* \rightarrow \pi^- K^+,$ $\bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow e^- \bar{\nu}_e K^+, D^+ \rightarrow e^+ \nu_e \bar{K}^0, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^+ e^- \nu_e \bar{\nu}_e \mu^- \bar{\nu}_\mu K_L \pi^+ \pi^+ \pi^- \pi^- K^+ K^+ K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	103	103	1	104
105	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \pi^- \pi^- \rho^+ \rho^+ \rho^- K^0 D^0, \bar{B}^0 \rightarrow D^+ \Delta^0 \bar{\Delta}^+, \rho^+ \rightarrow \pi^0 \pi^+, \rho^+ \rightarrow \pi^0 \pi^+,$ $\rho^- \rightarrow \pi^0 \pi^-, K^0 \rightarrow K_L, D^0 \rightarrow \pi^0 \pi^+ \pi^- K_S, D^+ \rightarrow \pi^+ \pi^+ K_S K^-, \Delta^0 \rightarrow \pi^- p, \bar{\Delta}^+ \rightarrow \pi^- \bar{n},$ $K_S \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	104	104	1	105
106	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 K^{*+} D^- D^{*0}, B^0 \rightarrow \pi^0 \pi^+ \pi^+ \rho^- \bar{D}^{*-}, K^{*+} \rightarrow \pi^+ K^0, D^- \rightarrow \mu^- \bar{\nu}_\mu K^0,$ $D^{*0} \rightarrow \pi^0 D^0, \rho^- \rightarrow \pi^0 \pi^-, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, K^0 \rightarrow K_S, K^0 \rightarrow K_S, D^0 \rightarrow \rho^+ K^{*-},$ $\bar{D}^0 \rightarrow e^- \bar{\nu}_e \pi^+ K^0, K_S \rightarrow \pi^0 \pi^0, K_S \rightarrow \pi^+ \pi^-, \rho^+ \rightarrow \pi^0 \pi^+, K^{*-} \rightarrow \pi^- \bar{K}^0, K^0 \rightarrow K_L,$ $\bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^- \bar{\nu}_e \mu^- \bar{\nu}_\mu K_L K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	105	105	1	106
107	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^+ \eta \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^- \eta' D^+, \eta \rightarrow \gamma \gamma, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0,$ $\eta' \rightarrow \pi^0 \pi^0 \eta, D^+ \rightarrow \pi^0 \pi^+ K_S, \bar{D}^0 \rightarrow \pi^- K_1^+, \eta \rightarrow \gamma \gamma, K_S \rightarrow \pi^+ \pi^-, K_1^+ \rightarrow \rho^+ K^0,$ $\rho^+ \rightarrow \pi^0 \pi^+, K^0 \rightarrow K_S, K_S \rightarrow e^+ \nu_e \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	106	106	1	107
108	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow e^+ \nu_e \bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^0 \pi^- \omega D^{*+} n \bar{n}, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \omega \rightarrow \pi^0 \pi^+ \pi^-,$ $D^{*+} \rightarrow \pi^+ D^0, \bar{D}^0 \rightarrow \pi^0 \rho^- K^+, D^0 \rightarrow \pi^0 \pi^+ K^-, \rho^- \rightarrow \pi^0 \pi^-$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- n \bar{n} \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	107	107	1	108

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
119	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\eta\bar{D}^{*-}, B^0 \rightarrow K^+\bar{D}^{*-}D^{*0}, \eta \rightarrow \gamma\gamma, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*0} \rightarrow D^0\gamma, \bar{D}^0 \rightarrow \omega K_S, \bar{D}^0 \rightarrow \pi^0 K^*, D^0 \rightarrow \eta K_S, \omega \rightarrow \pi^0\pi^+\pi^-,$ $K_S \rightarrow \pi^+\pi^-, K^* \rightarrow \pi^0 K^0, \eta \rightarrow \pi^0\pi^0\pi^0, K_S \rightarrow \pi^0\pi^0, K^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0,$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^- K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	118	117	1	119
120	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^-K^0\bar{K}^*K^+D^-, \bar{B}^0 \rightarrow \pi^+\pi^-D^+D_s^-, K^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^+K^-,$ $D^- \rightarrow \pi^-K_S, D^+ \rightarrow \pi^0\pi^+\pi^+K^-, D_s^- \rightarrow K^*K^{*-}, K_S \rightarrow \pi^+\pi^-, K^* \rightarrow \pi^0 K^0, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma)$	119	118	1	120
121	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow D^-\bar{\Delta}^-\Delta^0, \bar{B}^0 \rightarrow \pi^+\pi^+\rho^-\rho^-\bar{K}^0\eta', D^- \rightarrow \pi^0 K_L\pi^-, \bar{\Delta}^- \rightarrow \pi^+\bar{n},$ $\Delta^0 \rightarrow \pi^-p, \rho^- \rightarrow \pi^0\pi^-, \rho^- \rightarrow \pi^0\pi^-, \bar{K}^0 \rightarrow K_S, \eta' \rightarrow \pi^+\pi^-\eta, K_S \rightarrow \pi^+\pi^-,$ $\eta \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma)$	120	119	1	121
122	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\rho^+\omega\bar{D}^{*-}, \bar{B}^0 \rightarrow D^{*+}a_1^-, \rho^+ \rightarrow \pi^0\pi^+, \omega \rightarrow \pi^0\pi^+\pi^-,$ $\omega \rightarrow \pi^0\pi^+\pi^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow \pi^0 D^+, a_1^- \rightarrow \pi^0\rho^-, \bar{D}^0 \rightarrow \pi^0\rho^0, D^+ \rightarrow \pi^0\pi^+\bar{K}^*,$ $\rho^- \rightarrow \pi^0\pi^-, \rho^0 \rightarrow \pi^+\pi^-, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	121	120	1	122
123	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^+\bar{D}^{*-}D^{*0}, \bar{B}^0 \rightarrow \bar{K}^0 D^{*0}\bar{D}^{*0}, \bar{D}^{*-} \rightarrow \pi^0 D^-, D^{*0} \rightarrow \pi^0 D^0,$ $\bar{K}^0 \rightarrow K_L, D^{*0} \rightarrow \pi^0 D^0, \bar{D}^{*0} \rightarrow \pi^0 \bar{D}^0, D^- \rightarrow e^-\bar{\nu}_e\pi^-K^+, D^0 \rightarrow \rho^+K^{*-}, D^0 \rightarrow \pi^+\pi^+\pi^-\pi^-,$ $\bar{D}^0 \rightarrow \pi^-K^+, \rho^+ \rightarrow \pi^0\pi^+, K^{*-} \rightarrow \pi^-\bar{K}^0, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+K^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	122	121	1	123
124	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\rho^0\pi^+\eta'\bar{D}^{*-}, \bar{B}^0 \rightarrow K^{*-}D^{*+}\bar{D}^{*0}, \rho^0 \rightarrow \pi^+\pi^-, \eta' \rightarrow \pi^+\pi^-\eta,$ $\bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, K^{*-} \rightarrow \pi^-\bar{K}^0, D^{*+} \rightarrow \pi^+D^0, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \eta \rightarrow \gamma\gamma, \bar{D}^0 \rightarrow e^-\bar{\nu}_e K^+,$ $\bar{K}^0 \rightarrow K_S, D^0 \rightarrow e^+\nu_e\pi^-\bar{K}^0, \pi^0 \rightarrow e^+e^-, \bar{D}^0 \rightarrow \pi^+\pi^-K_S, K_S \rightarrow \pi^0\pi^0, \bar{K}^0 \rightarrow K_L,$ $K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^+e^-e^-\nu_e\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	123	122	1	124
125	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow K^-D^{*+}\bar{D}^{*0}, \bar{B}^0 \rightarrow \pi^0\rho^-\omega D^+, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0,$ $\rho^- \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow \pi^+\pi^+\pi^+\pi^-K^-, D^+ \rightarrow \pi^+\bar{K}'^0, \bar{D}^0 \rightarrow K^+a_1^-, \bar{K}'^0 \rightarrow \pi^0\bar{K}^*,$ $a_1^- \rightarrow \pi^0\rho^-, \bar{K}^* \rightarrow \pi^+K^-, \rho^- \rightarrow \pi^0\pi^-, \pi^0 \rightarrow e^+e^-$ $(e^+e^- \rightarrow e^+e^-\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^- K^+K^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	124	123	1	125
126	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}\bar{\Delta}^-\Delta^0, \bar{B}^0 \rightarrow \pi^0\pi^0\pi^+\pi^-\pi^-D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \bar{\Delta}^- \rightarrow \pi^+\bar{n},$ $\Delta^0 \rightarrow \pi^0 n, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow \pi^-K^+, D^+ \rightarrow \pi^0\pi^+K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	125	124	1	126
127	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*-}D_s^{*+}, \bar{B}^0 \rightarrow \pi^0\pi^-\eta\omega D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D_s^{*+} \rightarrow \pi^0 D_s^{*+},$ $\eta \rightarrow \gamma\gamma, \omega \rightarrow \pi^0\pi^+\pi^-, D^{*+} \rightarrow \pi^+D^0, \bar{D}^{*0} \rightarrow e^-\bar{\nu}_e K^{*+}, D_s^{*+} \rightarrow D_s^+\gamma, D^0 \rightarrow \pi^0\pi^+K^{*-},$ $K^{*+} \rightarrow \pi^+K^0, D_s^+ \rightarrow \bar{K}^*K^{*+}, K^{*-} \rightarrow \pi^-\bar{K}^0, K^0 \rightarrow K_S, \bar{K}^* \rightarrow \pi^0\bar{K}^0, K^{*+} \rightarrow \pi^0 K^+,$ $\bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-, \bar{K}^0 \rightarrow K_L, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^- K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	126	125	1	127

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
148	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^-\bar{K}^0 D^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \bar{K}^0 \rightarrow K_S,$ $D^+ \rightarrow \mu^+\nu_\mu\bar{K}^0, \bar{D}^0 \rightarrow \pi^0\pi^-K^+, K_S \rightarrow \pi^0\pi^0, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	147	145	1	148
149	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D^-, \bar{B}^0 \rightarrow D^{*+}a_1^-, D^- \rightarrow e^-\bar{\nu}_e K_2^{*0}, D^{*+} \rightarrow \pi^0 D^+,$ $a_1^- \rightarrow \pi^0\rho^-, K_2^{*0} \rightarrow \pi^0 K^0, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^*, \rho^- \rightarrow \pi^0\pi^-, K^0 \rightarrow K_L, \bar{K}^* \rightarrow \pi^0\bar{K}^0,$ $\bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\mu^+\nu_\mu\nu_\mu K_L\pi^+\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	148	146	1	149
150	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 B^0, B^0 \rightarrow \pi^+\pi^-\bar{D}^0, B^0 \rightarrow \pi^+\omega D^- n\bar{n}, \bar{D}^0 \rightarrow K^+a_1^-, \omega \rightarrow \pi^0\pi^+\pi^-,$ $D^- \rightarrow \pi^0\pi^-K^*, a_1^- \rightarrow \pi^0\rho^-, K^* \rightarrow \pi^0 K^0, \rho^- \rightarrow \pi^0\pi^-, K^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	149	147	1	150
151	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \pi^-D^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^0,$ $\bar{D}^0 \rightarrow e^-\bar{\nu}_e\pi^0 K^+, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma)$	150	148	1	151
152	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 B^0, B^0 \rightarrow \tau^+\nu_\tau\bar{D}^{*-}, B^0 \rightarrow K^0 D^0\bar{D}^{*0}, \tau^+ \rightarrow \bar{\nu}_\tau\pi^0\pi^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $K^0 \rightarrow K_S, D^0 \rightarrow \pi^0\pi^+\pi^-\bar{K}^*, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \bar{D}^0 \rightarrow e^-\bar{\nu}_e\pi^+K^0, K_S \rightarrow \pi^+\pi^-, \bar{K}^* \rightarrow \pi^0\bar{K}^0,$ $\bar{D}^0 \rightarrow \pi^-K_1^+, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, K_1^+ \rightarrow \rho^+K^0, K_S \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+,$ $K^0 \rightarrow K_L$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\nu_\tau\bar{\nu}_\tau K_L K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	151	149	1	152
153	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\bar{D}^{*-}\Sigma^+\bar{\Sigma}^-, \bar{B}^0 \rightarrow \pi^0\pi^+\pi^-\rho^-K^0\bar{K}^0 D^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \Sigma^+ \rightarrow \pi^+n,$ $\bar{\Sigma}^- \rightarrow \pi^-\bar{n}, \rho^- \rightarrow \pi^0\pi^-, K^0 \rightarrow K_S, \bar{K}^0 \rightarrow K_L, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^*, \bar{D}^0 \rightarrow K_L\pi^+\pi^-,$ $K_S \rightarrow \pi^0\pi^0, \bar{K}^* \rightarrow \pi^+K^-, K_L \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	152	150	1	153
154	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0\bar{B}^0, \bar{B}^0 \rightarrow \pi^0\pi^-\omega D^+ p\bar{p}, \bar{B}^0 \rightarrow \pi^0\pi^0\pi^+\pi^+\pi^-\pi^-\pi^-\rho^+\omega D^0, \omega \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow \pi^+\bar{K}_1^{'0},$ $\rho^+ \rightarrow \pi^0\pi^+, \omega \rightarrow \pi^0\pi^+\pi^-, D^0 \rightarrow \rho^+K^{*-}, \bar{K}_1^{'0} \rightarrow \pi^+K^{*-}, \rho^+ \rightarrow \pi^0\pi^+, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $K^{*-} \rightarrow \pi^0 K^-, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-p\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	153	151	1	154
155	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\rho^0\pi^+\pi^-\rho^+D^-, \bar{B}^0 \rightarrow \pi^0\pi^+K^-D^+\bar{D}^{*-}, \rho^0 \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+,$ $D^- \rightarrow e^-\bar{\nu}_e K^0, D^+ \rightarrow \mu^+\nu_\mu\pi^+K^-, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, K^0 \rightarrow K_L, \bar{D}^0 \rightarrow K_L\pi^-K^+, K_L \rightarrow \pi^0\pi^0\pi^0$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	154	152	1	155
156	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^+\pi^+\pi^-\eta D^-\bar{\Sigma}^+\Sigma^-, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \eta \rightarrow \gamma\gamma, D^- \rightarrow \mu^-\bar{\nu}_\mu\pi^-K^+,$ $\bar{\Sigma}^+ \rightarrow \pi^+\bar{n}, \Sigma^- \rightarrow \pi^-n, D^{*+} \rightarrow \pi^+D^0, D^0 \rightarrow K^-a_1^+, a_1^+ \rightarrow \rho^0\pi^+, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-n\bar{n}\gamma\gamma)$	155	153	1	156
157	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{D}^{*0}\bar{p}\Delta^+, \bar{B}^0 \rightarrow \pi^0\pi^0\rho^0\rho^0\rho^-D^{*+}, \bar{D}^{*0} \rightarrow \pi^0\bar{D}^0, \Delta^+ \rightarrow \pi^+n,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^0 D^+, \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu K^+, D^+ \rightarrow \pi^+\pi^+K^-$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	156	154	1	157

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
167	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow \rho^-D^{*+}, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \rho^- \rightarrow \pi^0\pi^-,$ $D^{*+} \rightarrow D^+\gamma, \bar{D}^0 \rightarrow \pi^+\rho^-, D^+ \rightarrow \pi^+\pi^+K^-, \rho^- \rightarrow \pi^0\pi^-$ $(e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma)$	166	164	1	167
168	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0B^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}D^0, B^0 \rightarrow \pi^0\pi^0\pi^+D^-, K^{*+} \rightarrow \pi^+K^0, \bar{D}^{*-} \rightarrow \pi^0D^-,$ $D^0 \rightarrow \rho^+K^{*-}, D^- \rightarrow \pi^-K_1^0, K^0 \rightarrow K_S, D^- \rightarrow \pi^-K_S, \rho^+ \rightarrow \pi^0\pi^+, K^{*-} \rightarrow \pi^-\bar{K}^0,$ $K_1^0 \rightarrow \pi^-K^{*+}, K_S \rightarrow \pi^0\pi^0, K_S \rightarrow \pi^+\pi^-, \bar{K}^0 \rightarrow K_S, K^{*+} \rightarrow \pi^+K^0, K_S \rightarrow \pi^+\pi^-,$ $K^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	167	165	1	168
169	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0B^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}D^{*0}, B^0 \rightarrow \pi^0\eta\bar{K}^0K^+D^-, K^{*+} \rightarrow \pi^+K^0, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $D^{*0} \rightarrow D^0\gamma, \eta \rightarrow \pi^0\pi^0\pi^0, \bar{K}^0 \rightarrow K_S, D^- \rightarrow \mu^-\bar{\nu}_\mu\eta, K^0 \rightarrow K_L, \bar{D}^0 \rightarrow \pi^+\rho^-,$ $D^0 \rightarrow \pi^0\pi^+K^-, K_S \rightarrow \pi^+\pi^-, \eta \rightarrow \pi^0\pi^+\pi^-, \rho^- \rightarrow \pi^0\pi^-, \pi^0 \rightarrow e^+e^-$ $(e^+e^- \rightarrow e^+e^-\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	168	166	1	169
170	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \tau^+\nu_\tau D_2^{*-}, \bar{B}^0 \rightarrow \rho^0\pi^-\rho^+\rho^-\eta\omega D^+, \tau^+ \rightarrow \bar{\nu}_\tau\pi^0\pi^+, D_2^{*-} \rightarrow \pi^-\bar{D}^0,$ $\rho^0 \rightarrow \pi^+\pi^-, \rho^+ \rightarrow \pi^0\pi^+, \rho^- \rightarrow \pi^0\pi^-, \eta \rightarrow \pi^0\pi^0\pi^0, \omega \rightarrow \pi^0\pi^+\pi^-, D^+ \rightarrow e^+\nu_e\pi^+K^-,$ $\bar{D}^0 \rightarrow K_L\pi^+\pi^-$ $(e^+e^- \rightarrow e^+\nu_e\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	169	167	1	170
171	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \bar{K}^*K^{*+}D^-, \bar{B}^0 \rightarrow K^-D^+\bar{D}^{*0}, \bar{K}^* \rightarrow \pi^+K^-, K^{*+} \rightarrow \pi^+K^0,$ $D^- \rightarrow \pi^0K_L\pi^-, D^+ \rightarrow e^+\nu_e\bar{K}^0, \bar{D}^{*0} \rightarrow \bar{D}^0\gamma, K^0 \rightarrow K_S, K_L \rightarrow e^+\nu_e\pi^-, \bar{K}^0 \rightarrow K_S,$ $\bar{D}^0 \rightarrow \pi^0\pi^+K^+, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^0\pi^0$ $(e^+e^- \rightarrow e^+e^+\nu_e\nu_e\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	170	168	1	171
172	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\rho^0\pi^+D^-, \bar{B}^0 \rightarrow \pi^+\rho^-\rho^-K^0\bar{K}^0D^{*+}, \rho^0 \rightarrow \pi^+\pi^-, D^- \rightarrow \mu^-\bar{\nu}_\mu\pi^-K^+,$ $\rho^- \rightarrow \pi^0\pi^-, \rho^- \rightarrow \pi^0\pi^-, K^0 \rightarrow K_L, \bar{K}^0 \rightarrow K_S, D^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^0\pi^0,$ $D^0 \rightarrow \pi^+\pi^-\bar{K}^*, \bar{K}^* \rightarrow \pi^+K^-$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	171	169	1	172
173	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\eta K^0D^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \rho^0D^{*+}n\bar{p}, \eta \rightarrow \pi^0\pi^0\pi^0, K^0 \rightarrow K_L,$ $D^+ \rightarrow K_S a_1^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, \rho^0 \rightarrow \pi^+\pi^-, D^{*+} \rightarrow \pi^+D^0, K_S \rightarrow \pi^0\pi^0, a_1^+ \rightarrow \pi^0\rho^+,$ $\bar{D}^0 \rightarrow \eta\eta', D^0 \rightarrow \pi^-K_S K^+, \rho^+ \rightarrow \pi^0\pi^+, \eta \rightarrow \gamma\gamma, \eta' \rightarrow \pi^0\pi^0\eta, K_S \rightarrow \pi^+\pi^-,$ $\eta \rightarrow \pi^0\pi^0\pi^0$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^+K^+n\bar{p}\gamma)$	172	170	1	173
174	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\eta\bar{K}^0K^+D^-, \bar{B}^0 \rightarrow \pi^-\rho^-D^{*+}\bar{n}p, \eta \rightarrow \pi^0\pi^0\pi^0, \bar{K}^0 \rightarrow K_L,$ $D^- \rightarrow e^-\bar{\nu}_e\pi^-K^+, \rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow \pi^+D^0, D^0 \rightarrow \pi^0\pi^+\pi^-K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	173	171	1	174
175	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0n\bar{\Sigma}_c^{*0}, \bar{B}^0 \rightarrow \pi^-\pi^-\rho^+D^+, \rho^0 \rightarrow \pi^+\pi^-, \bar{\Sigma}_c^{*0} \rightarrow \pi^+\bar{\Lambda}_c^-,$ $\rho^+ \rightarrow \pi^0\pi^+, D^+ \rightarrow \pi^+\bar{K}_1^0, \bar{\Lambda}_c^- \rightarrow \pi^-\bar{n}, \bar{K}_1^0 \rightarrow \pi^+K^{*-}, K^{*-} \rightarrow \pi^-\bar{K}^0, \bar{K}^0 \rightarrow K_S,$ $K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-n\bar{n}\gamma\gamma)$	174	172	1	175

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
176	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^0,$ $\bar{D}^0 \rightarrow \pi^0\pi^-K^+, \bar{K}^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^-\pi^-K^+\gamma\gamma)$	175	173	1	176
177	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow e^+\nu_e\bar{D}^{*-}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, \bar{D}^{*-} \rightarrow \pi^0D^-, D^{*+} \rightarrow \pi^0D^+,$ $D^- \rightarrow e^-\bar{\nu}_eK^0, D^+ \rightarrow \pi^+K_S, K^0 \rightarrow K_S, K_S \rightarrow \pi^+\pi^-, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^+e^-e^-\nu_e\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-\gamma\gamma\gamma\gamma)$	176	174	1	177
178	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \mu^+\nu_\mu D^-, \bar{B}^0 \rightarrow \bar{K}^*\phi\eta_c, D^- \rightarrow K_L a_1^-, \bar{K}^* \rightarrow \pi^+K^-,$ $\phi \rightarrow K_L K_S, \eta_c \rightarrow \pi^0\pi^+\pi^-\pi^-\rho^+\omega, a_1^- \rightarrow \pi^0\rho^-, K_S \rightarrow \pi^0\pi^0, \rho^+ \rightarrow \pi^0\pi^+, \omega \rightarrow \pi^0\pi^+\pi^-,$ $\rho^- \rightarrow \pi^0\pi^-$ $(e^+e^- \rightarrow \mu^+\nu_\mu K_L K_L \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	177	175	1	178
179	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^0\rho^0\pi^+D^-, \bar{B}^0 \rightarrow \rho^-\omega\bar{K}^*D_s^+, \rho^0 \rightarrow \pi^+\pi^-, \rho^0 \rightarrow \pi^+\pi^-,$ $D^- \rightarrow \pi^-\pi^-K^+, \rho^- \rightarrow \pi^0\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, \bar{K}^* \rightarrow \pi^0\bar{K}^0, D_s^+ \rightarrow \pi^+\phi, \bar{K}^0 \rightarrow K_L,$ $\phi \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	178	176	1	179
180	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow K^{*+}\bar{D}^{*-}D^{*0}, \bar{B}^0 \rightarrow e^-\bar{\nu}_eD^{*+}, K^{*+} \rightarrow \pi^+K^0, \bar{D}^{*-} \rightarrow \pi^0D^-,$ $D^{*0} \rightarrow D^0\gamma, D^{*+} \rightarrow \pi^0D^+, K^0 \rightarrow K_S, D^- \rightarrow \mu^-\bar{\nu}_\mu\pi^-K^+, D^0 \rightarrow \omega K_S, D^+ \rightarrow \mu^+\nu_\mu\pi^+K^-,$ $K_S \rightarrow \pi^+\pi^-, \omega \rightarrow \pi^0\pi^+\pi^-, K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	179	177	1	180
181	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \rho^-\bar{D}^0D_s^{*+}, \bar{B}^0 \rightarrow D^+D_s^-, \rho^- \rightarrow \pi^0\pi^-, \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu\pi^0K^+,$ $D_s^{*+} \rightarrow D_s^+\gamma, D^+ \rightarrow \mu^+\nu_\mu\bar{K}^*, D_s^- \rightarrow \rho^-\eta, D_s^+ \rightarrow \pi^+\pi^+\pi^-\omega, \bar{K}^* \rightarrow \pi^+K^-, \rho^- \rightarrow \pi^0\pi^-,$ $\eta \rightarrow \pi^0\pi^0\pi^0, \omega \rightarrow \pi^0\pi^+\pi^-$ $(e^+e^- \rightarrow \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	180	178	1	181
182	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\bar{K}^0K^+\bar{D}^{*-}, \bar{B}^0 \rightarrow \mu^-\bar{\nu}_\mu D^{*+}, \bar{K}^0 \rightarrow K_L, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0,$ $D^{*+} \rightarrow \pi^+D^0, K_L \rightarrow e^+\nu_e\pi^-, \bar{D}^0 \rightarrow \mu^-\bar{\nu}_\mu K^+, D^0 \rightarrow \pi^0\pi^+K^-$ $(e^+e^- \rightarrow e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma)$	181	179	1	182
183	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\Sigma^0\Xi_c^0, \bar{B}^0 \rightarrow \rho^-D^{*+}, \Sigma^0 \rightarrow \Lambda\gamma, \Xi_c^0 \rightarrow \pi^-K^0\bar{\Sigma}^+,$ $\rho^- \rightarrow \pi^0\pi^-, D^{*+} \rightarrow D^+\gamma, \Lambda \rightarrow \pi^0n, K^0 \rightarrow K_L, \bar{\Sigma}^+ \rightarrow \pi^+\bar{n}, D^+ \rightarrow \pi^0\pi^+K_S,$ $K_S \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	182	180	1	183
184	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^+\pi^+\pi^-\bar{D}^{*-}, \bar{B}^0 \rightarrow D^{*+}\Delta^0\bar{\Delta}^+, \bar{D}^{*-} \rightarrow \pi^-\bar{D}^0, D^{*+} \rightarrow \pi^0D^+,$ $\Delta^0 \rightarrow \pi^0n, \bar{\Delta}^+ \rightarrow \pi^0\bar{p}, \bar{D}^0 \rightarrow \rho^-K^{*+}, D^+ \rightarrow \pi^0K_L\pi^+, \rho^- \rightarrow \pi^0\pi^-, K^{*+} \rightarrow \pi^+K^0,$ $K^0 \rightarrow K_L, K_L \rightarrow \pi^0\pi^0\pi^0$ $(e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-n\bar{p}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	183	181	1	184
185	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0\bar{B}^0, B^0 \rightarrow \pi^0\pi^0\pi^0\pi^0\pi^+\pi^-, \bar{B}^0 \rightarrow \tau^-\bar{\nu}_\tau D_1^+, \tau^- \rightarrow \mu^-\bar{\nu}_\mu\nu_\tau, D_1^+ \rightarrow \pi^0D^{*+},$ $D^{*+} \rightarrow \pi^+D^0, D^0 \rightarrow K^-a_1^+, a_1^+ \rightarrow \rho^0\pi^+, \rho^0 \rightarrow \pi^+\pi^-$ $(e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\nu_\tau\bar{\nu}_\tau\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma)$	184	182	1	185

index	event tree (event initial-final states)	iEvtTr	iEvtIFSts	nEvts	nCmltEvts
195	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 B^0, B^0 \rightarrow \mu^+ \nu_\mu D_1'^-, B^0 \rightarrow \pi^0 \pi^0 \rho^0 \pi^+ \omega D^-, D_1'^- \rightarrow \pi^0 \bar{D}^{*-}, \rho^0 \rightarrow \pi^+ \pi^-,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-, D^- \rightarrow \pi^- \pi^- K^+, \bar{D}^{*-} \rightarrow \pi^- \bar{D}^0, \bar{D}^0 \rightarrow \pi^+ \pi^+ \pi^- \pi^-$ $(e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma)$	194	192	1	195
196	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow \bar{B}^0 \bar{B}^0, \bar{B}^0 \rightarrow \pi^0 \pi^+ \pi^- \pi^- D^{*+}, \bar{B}^0 \rightarrow \pi^0 \rho^0 \pi^+ K^+ K^- K^{*-} D^0, D^{*+} \rightarrow \pi^+ D^0, \rho^0 \rightarrow \pi^+ \pi^-,$ $K^{*-} \rightarrow \pi^- \bar{K}^0, D^0 \rightarrow \pi^0 \rho^+ K^-, D^0 \rightarrow \rho^+ K^{*-}, \bar{K}^0 \rightarrow K_S, \rho^+ \rightarrow \pi^0 \pi^+, \rho^+ \rightarrow \pi^0 \pi^+,$ $K^{*-} \rightarrow \pi^- \bar{K}^0, K_S \rightarrow \pi^+ \pi^-, \bar{K}^0 \rightarrow K_L$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- K^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	195	193	1	196
197	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 D^- \bar{\Sigma}^+ \Sigma^0, \bar{B}^0 \rightarrow K^* K^- D^+, D^- \rightarrow \pi^0 \pi^0 \pi^0 \pi^- K^0, \bar{\Sigma}^+ \rightarrow \pi^+ \bar{n},$ $\Sigma^0 \rightarrow \Lambda \gamma, K^* \rightarrow \pi^0 K^0, D^+ \rightarrow \pi^0 K_L \pi^+, K^0 \rightarrow K_S, \Lambda \rightarrow \pi^- p, K^0 \rightarrow K_S,$ $K_S \rightarrow \pi^0 \pi^0, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- K^- \bar{n} p \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	196	194	1	197
198	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \pi^0 \rho^0 \pi^+ D^-, \bar{B}^0 \rightarrow \pi^+ \pi^- \pi^- \omega D^{*+}, \rho^0 \rightarrow \pi^+ \pi^-, D^- \rightarrow \pi^- K_S,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-, D^{*+} \rightarrow \pi^+ D^0, K_S \rightarrow \pi^+ \pi^-, D^0 \rightarrow K_L \eta', \eta' \rightarrow \pi^+ \pi^- \eta, \eta \rightarrow \pi^0 \pi^0 \pi^0$ $(e^+e^- \rightarrow K_L \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	197	195	1	198
199	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow \rho^+ \eta \omega D^-, \bar{B}^0 \rightarrow D^+ a_1^-, \rho^+ \rightarrow \pi^0 \pi^+, \eta \rightarrow \pi^0 \pi^0 \pi^0,$ $\omega \rightarrow \pi^0 \pi^+ \pi^-, D^- \rightarrow \pi^0 \pi^- K^*, D^+ \rightarrow \mu^+ \nu_\mu \bar{K}^0, a_1^- \rightarrow \rho^0 \pi^-, K^* \rightarrow \pi^- K^+, \bar{K}^0 \rightarrow K_S,$ $\rho^0 \rightarrow \pi^+ \pi^-, K_S \rightarrow \pi^+ \pi^-$ $(e^+e^- \rightarrow \mu^+ \nu_\mu \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- \pi^- K^+ \gamma \gamma \gamma \gamma \gamma \gamma \gamma \gamma)$	198	196	1	199
200	$e^+e^- \rightarrow \Upsilon(4S), \Upsilon(4S) \rightarrow B^0 \bar{B}^0, B^0 \rightarrow e^+ \nu_e D^-, \bar{B}^0 \rightarrow D_s^{*-} D_1^+, D^- \rightarrow \pi^- \pi^- K^+, D_s^{*-} \rightarrow D_s^- \gamma,$ $D_1^+ \rightarrow \pi^+ D^{*0}, D_s^- \rightarrow \rho^- \eta, D^{*0} \rightarrow \pi^0 D^0, \rho^- \rightarrow \pi^0 \pi^-, \eta \rightarrow \pi^+ \pi^-, D^0 \rightarrow \pi^+ \pi^- \bar{K}^*,$ $\bar{K}^* \rightarrow \pi^+ K^-$ $(e^+e^- \rightarrow e^+ \nu_e \pi^+ \pi^+ \pi^+ \pi^+ \pi^- \pi^- \pi^- \pi^- \pi^- K^+ K^- \gamma \gamma \gamma \gamma)$	199	197	1	200

Table 2: Event initial-final states.

index	event initial-final states	iEvtIFSts	nEvts	nCmltEvts
1	$e^+e^- \rightarrow \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma$	13	3	3
2	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^+K^+K^-K^-\gamma\gamma\gamma\gamma$	1	1	4
3	$e^+e^- \rightarrow e^-\bar{\nu}_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma$	2	1	5
4	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	3	1	6
5	$e^+e^- \rightarrow e^+e^+e^-\nu_e\nu_e\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma$	4	1	7
6	$e^+e^- \rightarrow e^-e^-\bar{\nu}_e\bar{\nu}_e\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	5	1	8
7	$e^+e^- \rightarrow \mu^+\mu^+\nu_\mu\nu_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	6	1	9
8	$e^+e^- \rightarrow e^-\bar{\nu}_e\nu_\tau\bar{\nu}_\tau\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma$	7	1	10
9	$e^+e^- \rightarrow e^-\bar{\nu}_e\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	8	1	11
10	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	9	1	12
11	$e^+e^- \rightarrow e^+\nu_e K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	10	1	13
12	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-n\bar{n}\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	11	1	14
13	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	12	1	15
14	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma$	0	1	16
15	$e^+e^- \rightarrow e^+\nu_e\mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^-K^+K^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	14	1	17
16	$e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	15	1	18
17	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	16	1	19
18	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	17	1	20
19	$e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	18	1	21
20	$e^+e^- \rightarrow K_L K_L K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	19	1	22
21	$e^+e^- \rightarrow e^+\nu_e\mu^-\mu^-\bar{\nu}_\mu\bar{\nu}_\mu K_L K_L\pi^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	20	1	23
22	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma$	21	1	24
23	$e^+e^- \rightarrow e^+e^-\nu_e\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	22	1	25
24	$e^+e^- \rightarrow e^+\nu_e\mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma$	23	1	26
25	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	24	1	27
26	$e^+e^- \rightarrow K_L K_L K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	25	1	28
27	$e^+e^- \rightarrow e^-\bar{\nu}_e K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma$	26	1	29
28	$e^+e^- \rightarrow \mu^-\nu_\mu K_L K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	27	1	30
29	$e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-K^-K^-\gamma\gamma$	28	1	31
30	$e^+e^- \rightarrow \mu^+\mu^-\nu_\mu\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma$	29	1	32
31	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^+K^-\bar{n}p\gamma\gamma$	30	1	33
32	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^-K^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	31	1	34

index	event initial-final states	iEvtIFSts	nEvts	nCmltEvts
65	$e^+e^- \rightarrow e^+e^+e^-e^-\mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma$	64	1	67
66	$e^+e^- \rightarrow e^+e^+\nu_e\nu_e\nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	65	1	68
67	$e^+e^- \rightarrow e^+\nu_e\mu^+\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	66	1	69
68	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma$	67	1	70
69	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	68	1	71
70	$e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma$	69	1	72
71	$e^+e^- \rightarrow \mu^+\mu^+\nu_\mu\nu_\mu\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	70	1	73
72	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	71	1	74
73	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	72	1	75
74	$e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_e\mu^+\nu_\mu\nu_\tau\bar{\nu}_\tau\pi^+\pi^-\pi^-K^+K^-\gamma\gamma$	73	1	76
75	$e^+e^- \rightarrow e^+e^-K_LK_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma$	74	1	77
76	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	75	1	78
77	$e^+e^- \rightarrow K_LK_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	76	1	79
78	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-n\bar{n}\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	77	1	80
79	$e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_eK_L\pi^+\pi^+\pi^+\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	78	1	81
80	$e^+e^- \rightarrow e^+\nu_eK_L\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma$	79	1	82
81	$e^+e^- \rightarrow e^+e^-\mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma$	80	1	83
82	$e^+e^- \rightarrow e^-\bar{\nu}_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-K^-\gamma\gamma\gamma\gamma$	81	1	84
83	$e^+e^- \rightarrow \nu_\tau\bar{\nu}_\tau K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma$	82	1	85
84	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	83	1	86
85	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma$	84	1	87
86	$e^+e^- \rightarrow e^-\bar{\nu}_eK_L\pi^+\pi^+\pi^+\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	85	1	88
87	$e^+e^- \rightarrow e^+e^-\nu_e\bar{\nu}_eK_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	86	1	89
88	$e^+e^- \rightarrow \mu^+\mu^+\nu_\mu\nu_\mu K_L\pi^+\pi^+\pi^-\pi^-\pi^-K^-\gamma\gamma\gamma\gamma\gamma\gamma$	87	1	90
89	$e^+e^- \rightarrow \pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	88	1	91
90	$e^+e^- \rightarrow \nu_\tau\bar{\nu}_\tau\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^+K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	89	1	92
91	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	90	1	93
92	$e^+e^- \rightarrow K_LK_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-K^+K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	91	1	94
93	$e^+e^- \rightarrow e^+\nu_e\mu^+\nu_\mu\pi^+\pi^-\pi^-\pi^-K^+K^+K^-K^-\gamma\gamma\gamma\gamma$	92	1	95
94	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-p\bar{p}\gamma\gamma\gamma\gamma\gamma$	93	1	96
95	$e^+e^- \rightarrow \mu^-\bar{\nu}_\mu\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	94	1	97
96	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma$	95	1	98

index	event initial-final states	iEvtIFSts	nEvts	nCmltEvts
193	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	192	1	195
194	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-K^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	193	1	196
195	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-K^-\bar{n}p\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	194	1	197
196	$e^+e^- \rightarrow K_L\pi^+\pi^+\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	195	1	198
197	$e^+e^- \rightarrow \mu^+\nu_\mu\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-\pi^-K^+\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma\gamma$	196	1	199
198	$e^+e^- \rightarrow e^+\nu_e\pi^+\pi^+\pi^+\pi^+\pi^-\pi^-\pi^-\pi^-\pi^-K^+K^-\gamma\gamma\gamma\gamma$	197	1	200