

# 1 By process

## 1.1 $HH \rightarrow HH$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	-1.379	-1.379	0	2.16	2.16	0
cHDD	-0.09061	-0.09061	0	0.01348	0.01348	0
cH1311	-0.02474	-0.02474	0	0.00075	0.00075	0
cH1322	-0.000822	-0.000822	0	$2.492 \cdot 10^{-5}$	$2.492 \cdot 10^{-5}$	0
c111221	0.01254	0.01254	0	0.0001901	0.0001901	0
sm	0	0	0	0.2189	0.2189	0

## 1.2 $HH \rightarrow HHH$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$9.181 \cdot 10^{-6}$	$9.181 \cdot 10^{-6}$	0	$4.413 \cdot 10^{-5}$	$4.413 \cdot 10^{-5}$	0
cHDD	$4.069 \cdot 10^{-7}$	$4.069 \cdot 10^{-7}$	0	$4.829 \cdot 10^{-7}$	$4.829 \cdot 10^{-7}$	0
cH1311	$-4.599 \cdot 10^{-8}$	$-4.599 \cdot 10^{-8}$	0	$2.091 \cdot 10^{-9}$	$2.091 \cdot 10^{-9}$	0
cH1322	$-1.418 \cdot 10^{-8}$	$-1.418 \cdot 10^{-8}$	0	$6.449 \cdot 10^{-10}$	$6.449 \cdot 10^{-10}$	0
c111221	$1.816 \cdot 10^{-8}$	$1.816 \cdot 10^{-8}$	0	$4.129 \cdot 10^{-10}$	$4.129 \cdot 10^{-10}$	0
sm	0	0	0	$4.632 \cdot 10^{-7}$	$4.632 \cdot 10^{-7}$	0

## 1.3 $HH \rightarrow H\tau^+\tau^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-5.289 \cdot 10^{-9}$	$-5.289 \cdot 10^{-9}$	0	$8.538 \cdot 10^{-9}$	$8.538 \cdot 10^{-9}$	0

cHDD	$-9.068 \cdot 10^{-11}$	$-9.068 \cdot 10^{-11}$	0	$2.517 \cdot 10^{-11}$	$2.517 \cdot 10^{-11}$	0
cH1311	$-9.366 \cdot 10^{-12}$	$-9.366 \cdot 10^{-12}$	0	$4.259 \cdot 10^{-13}$	$4.259 \cdot 10^{-13}$	0
cH1322	$-8.658 \cdot 10^{-12}$	$-8.658 \cdot 10^{-12}$	0	$3.937 \cdot 10^{-13}$	$3.937 \cdot 10^{-13}$	0
ceHIm33	$6.647 \cdot 10^{-12}$	$6.647 \cdot 10^{-12}$	0	$1.966 \cdot 10^{-6}$	$1.966 \cdot 10^{-6}$	0
ceHRe33	$-2.049 \cdot 10^{-8}$	$-2.049 \cdot 10^{-8}$	0	$2.042 \cdot 10^{-6}$	$2.042 \cdot 10^{-6}$	0
c111221	$4.977 \cdot 10^{-10}$	$4.977 \cdot 10^{-10}$	0	$1.131 \cdot 10^{-11}$	$1.131 \cdot 10^{-11}$	0
sm	0	0	0	$2.591 \cdot 10^{-11}$	$2.591 \cdot 10^{-11}$	0

#### 1.4 $HH \rightarrow Hb\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-3.931 \cdot 10^{-9}$	$-3.931 \cdot 10^{-9}$	0	$9.686 \cdot 10^{-9}$	$9.686 \cdot 10^{-9}$	0
cHDD	$-2.493 \cdot 10^{-9}$	$-2.493 \cdot 10^{-9}$	0	$5.631 \cdot 10^{-10}$	$5.631 \cdot 10^{-10}$	0
cH1311	$-5.754 \cdot 10^{-8}$	$-5.754 \cdot 10^{-8}$	0	$2.616 \cdot 10^{-9}$	$2.616 \cdot 10^{-9}$	0
cH1322	$-2.59 \cdot 10^{-10}$	$-2.59 \cdot 10^{-10}$	0	$1.178 \cdot 10^{-11}$	$1.178 \cdot 10^{-11}$	0
cbHIm	$4.515 \cdot 10^{-11}$	$4.515 \cdot 10^{-11}$	0	$5.034 \cdot 10^{-6}$	$5.034 \cdot 10^{-6}$	0
cbHRe	$-2.269 \cdot 10^{-6}$	$-2.269 \cdot 10^{-6}$	0	$4.078 \cdot 10^{-6}$	$4.078 \cdot 10^{-6}$	0
c111221	$3.01 \cdot 10^{-9}$	$3.01 \cdot 10^{-9}$	0	$6.844 \cdot 10^{-11}$	$6.844 \cdot 10^{-11}$	0
sm	0	0	0	$3.602 \cdot 10^{-11}$	$3.602 \cdot 10^{-11}$	0

#### 1.5 $HH \rightarrow Hs\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.278 \cdot 10^{-12}$	$1.278 \cdot 10^{-12}$	0	$4.733 \cdot 10^{-12}$	$4.733 \cdot 10^{-12}$	0
cHDD	$-2.623 \cdot 10^{-12}$	$-2.623 \cdot 10^{-12}$	0	$4.964 \cdot 10^{-13}$	$4.964 \cdot 10^{-13}$	0
cH1311	$-9.605 \cdot 10^{-14}$	$-9.605 \cdot 10^{-14}$	0	$4.367 \cdot 10^{-15}$	$4.367 \cdot 10^{-15}$	0
cH1322	$-8.299 \cdot 10^{-14}$	$-8.299 \cdot 10^{-14}$	0	$3.774 \cdot 10^{-15}$	$3.774 \cdot 10^{-15}$	0

cdHIm	$4.055 \cdot 10^{-18}$	$4.055 \cdot 10^{-18}$	$3.206 \cdot 10^{-7}$	$1.706 \cdot 10^{-12}$	$1.706 \cdot 10^{-12}$	$6.45 \cdot 10^{-7}$
cdHRe	$-2.718 \cdot 10^{-12}$	$-2.718 \cdot 10^{-12}$	$3.311 \cdot 10^{-7}$	$6.01 \cdot 10^{-13}$	$6.01 \cdot 10^{-13}$	$6.156 \cdot 10^{-7}$
cll1221	$1.283 \cdot 10^{-13}$	$1.283 \cdot 10^{-13}$	0	$2.916 \cdot 10^{-15}$	$2.916 \cdot 10^{-15}$	0
sm	0	0	0	$8.542 \cdot 10^{-14}$	$8.542 \cdot 10^{-14}$	0

## 1.6 $HH \rightarrow Ht\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$4.932 \cdot 10^{-5}$	$4.932 \cdot 10^{-5}$	0	$1.877 \cdot 10^{-5}$	$1.877 \cdot 10^{-5}$	0
cHDD	$3.821 \cdot 10^{-6}$	$3.821 \cdot 10^{-6}$	0	$3.627 \cdot 10^{-7}$	$3.627 \cdot 10^{-7}$	0
cHl311	$-9.14 \cdot 10^{-6}$	$-9.14 \cdot 10^{-6}$	0	$4.156 \cdot 10^{-7}$	$4.156 \cdot 10^{-7}$	0
cHl322	$-1.433 \cdot 10^{-6}$	$-1.433 \cdot 10^{-6}$	0	$6.515 \cdot 10^{-8}$	$6.515 \cdot 10^{-8}$	0
cll1221	$2.756 \cdot 10^{-6}$	$2.756 \cdot 10^{-6}$	0	$6.265 \cdot 10^{-8}$	$6.265 \cdot 10^{-8}$	0
ctHIm	$-1.475 \cdot 10^{-5}$	$-1.475 \cdot 10^{-5}$	0	$3.267 \cdot 10^{-5}$	$3.267 \cdot 10^{-5}$	0
ctHRe	$3.699 \cdot 10^{-5}$	$3.699 \cdot 10^{-5}$	0	$1.875 \cdot 10^{-5}$	$1.875 \cdot 10^{-5}$	0
sm	0	0	0	$6.933 \cdot 10^{-5}$	$6.933 \cdot 10^{-5}$	0

## 1.7 $HH \rightarrow Hu\bar{u}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-3.669 \cdot 10^{-16}$	$-3.669 \cdot 10^{-16}$	0	$1.849 \cdot 10^{-15}$	$1.849 \cdot 10^{-15}$	0
cHDD	$-1.092 \cdot 10^{-13}$	$-1.092 \cdot 10^{-13}$	0	$1.836 \cdot 10^{-14}$	$1.836 \cdot 10^{-14}$	0
cHl311	$-2.754 \cdot 10^{-17}$	$-2.754 \cdot 10^{-17}$	0	$1.252 \cdot 10^{-18}$	$1.252 \cdot 10^{-18}$	0
cHl322	$-5.761 \cdot 10^{-17}$	$-5.761 \cdot 10^{-17}$	0	$2.619 \cdot 10^{-18}$	$2.619 \cdot 10^{-18}$	0
cll1221	$6.619 \cdot 10^{-17}$	$6.619 \cdot 10^{-17}$	0	$1.505 \cdot 10^{-18}$	$1.505 \cdot 10^{-18}$	0
cuHIm	$1.324 \cdot 10^{-25}$	$1.324 \cdot 10^{-25}$	$3.775 \cdot 10^{-7}$	$1.034 \cdot 10^{-15}$	$1.034 \cdot 10^{-15}$	$-1.451 \cdot 10^{-6}$
cuHRe	$-6.212 \cdot 10^{-16}$	$-6.212 \cdot 10^{-16}$	$-7.244 \cdot 10^{-7}$	$7.289 \cdot 10^{-16}$	$7.289 \cdot 10^{-16}$	$-1.441 \cdot 10^{-6}$

sm	0	0	0	$2.955 \cdot 10^{-16}$	$2.955 \cdot 10^{-16}$	0
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## 1.8 $HH \rightarrow Hzz$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-8.866 \cdot 10^{-6}$	$-8.866 \cdot 10^{-6}$	0	$3.155 \cdot 10^{-5}$	$3.155 \cdot 10^{-5}$	0
cHB	$7.29 \cdot 10^{-7}$	$7.29 \cdot 10^{-7}$	0	$1.043 \cdot 10^{-6}$	$1.043 \cdot 10^{-6}$	0
cHBtil	$7.864 \cdot 10^{-7}$	$7.864 \cdot 10^{-7}$	0	$1.036 \cdot 10^{-7}$	$1.036 \cdot 10^{-7}$	0
cHDD	$2.022 \cdot 10^{-6}$	$2.022 \cdot 10^{-6}$	0	$1.515 \cdot 10^{-6}$	$1.515 \cdot 10^{-6}$	0
cHW	$-1.653 \cdot 10^{-5}$	$-1.653 \cdot 10^{-5}$	0	$2.129 \cdot 10^{-5}$	$2.129 \cdot 10^{-5}$	0
cHWB	$-9.343 \cdot 10^{-6}$	$-9.343 \cdot 10^{-6}$	0	$1.668 \cdot 10^{-6}$	$1.668 \cdot 10^{-6}$	0
cHWBtil	$8.854 \cdot 10^{-7}$	$8.854 \cdot 10^{-7}$	0	$6.96 \cdot 10^{-7}$	$6.96 \cdot 10^{-7}$	0
cHWtil	$-2.365 \cdot 10^{-7}$	$-2.365 \cdot 10^{-7}$	0	$1.5 \cdot 10^{-5}$	$1.5 \cdot 10^{-5}$	0
cHl311	$-1.212 \cdot 10^{-5}$	$-1.212 \cdot 10^{-5}$	0	$5.509 \cdot 10^{-7}$	$5.509 \cdot 10^{-7}$	0
cHl322	$-1.232 \cdot 10^{-6}$	$-1.232 \cdot 10^{-6}$	0	$5.603 \cdot 10^{-8}$	$5.603 \cdot 10^{-8}$	0
c111221	$9.93 \cdot 10^{-7}$	$9.93 \cdot 10^{-7}$	0	$2.257 \cdot 10^{-8}$	$2.257 \cdot 10^{-8}$	0
sm	0	0	0	$7.78 \cdot 10^{-6}$	$7.78 \cdot 10^{-6}$	0

## 1.9 $HH \rightarrow W^+W^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	0.722	0.722	0	0.1331	0.1331	0
cHDD	-0.5819	-0.5819	0	0.1223	0.1223	0
cHW	-0.01475	-0.01475	0	7.962	7.962	0
cHWB	-26.09	-26.09	0	7.464	7.464	0
cHWtil	$-2.618 \cdot 10^{-16}$	$-2.618 \cdot 10^{-16}$	0	7.922	7.922	0
cHl311	-0.3182	-0.3182	0	0.2508	0.2508	0

cHl322	-0.3937	-0.3937	0	0.2587	0.2587	0
c1l1221	-0.04486	-0.04486	0	0.04717	0.04717	0
sm	0	0	0	0.4793	0.4793	0

### 1.10 $HH \rightarrow W^+W^-\gamma$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$-2.338 \cdot 10^{-7}$	$-2.338 \cdot 10^{-7}$	0	$1.17 \cdot 10^{-7}$	$1.17 \cdot 10^{-7}$	0
cHB	$1.603 \cdot 10^{-7}$	$1.603 \cdot 10^{-7}$	0	$1.512 \cdot 10^{-7}$	$1.512 \cdot 10^{-7}$	0
cHBtil	$-8.437 \cdot 10^{-8}$	$-8.437 \cdot 10^{-8}$	0	$2.624 \cdot 10^{-7}$	$2.624 \cdot 10^{-7}$	0
cHDD	$-2.257 \cdot 10^{-6}$	$-2.257 \cdot 10^{-6}$	0	$6.59 \cdot 10^{-7}$	$6.59 \cdot 10^{-7}$	0
cHW	$5.762 \cdot 10^{-6}$	$5.762 \cdot 10^{-6}$	0	0.0006855	0.0006855	0
cHWB	-0.001874	-0.001874	0	0.0006163	0.0006163	0
cHWBtil	$9.688 \cdot 10^{-7}$	$9.688 \cdot 10^{-7}$	0	$6.31 \cdot 10^{-5}$	$6.31 \cdot 10^{-5}$	0
cHWtil	$3.345 \cdot 10^{-6}$	$3.345 \cdot 10^{-6}$	0	0.007377	0.007377	0
cHl311	$-1.278 \cdot 10^{-6}$	$-1.278 \cdot 10^{-6}$	0	$7.209 \cdot 10^{-7}$	$7.209 \cdot 10^{-7}$	0
cHl322	$3.96 \cdot 10^{-8}$	$3.96 \cdot 10^{-8}$	0	$8.277 \cdot 10^{-8}$	$8.277 \cdot 10^{-8}$	0
cW	$2.751 \cdot 10^{-6}$	$2.751 \cdot 10^{-6}$	0	$9.606 \cdot 10^{-8}$	$9.606 \cdot 10^{-8}$	0
cWtil	$3.07 \cdot 10^{-8}$	$3.07 \cdot 10^{-8}$	0	$1.776 \cdot 10^{-6}$	$1.776 \cdot 10^{-6}$	0
c1l1221	$-3.747 \cdot 10^{-7}$	$-3.747 \cdot 10^{-7}$	0	$2.325 \cdot 10^{-7}$	$2.325 \cdot 10^{-7}$	0
sm	0	0	0	$8.064 \cdot 10^{-6}$	$8.064 \cdot 10^{-6}$	0

### 1.11 $HH \rightarrow W^+t\bar{b}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$8.019 \cdot 10^{-6}$	$8.019 \cdot 10^{-6}$	0	$1.322 \cdot 10^{-6}$	$1.322 \cdot 10^{-6}$	0
cHDD	-0.002013	-0.002013	0	0.0001866	0.0001866	0

cHQ3	$1.578 \cdot 10^{-5}$	$1.578 \cdot 10^{-5}$	0	$1.388 \cdot 10^{-5}$	$1.388 \cdot 10^{-5}$	0
cHW	$-1.676 \cdot 10^{-5}$	$-1.676 \cdot 10^{-5}$	0	$2.684 \cdot 10^{-5}$	$2.684 \cdot 10^{-5}$	0
cHWB	$-2.958 \cdot 10^{-6}$	$-2.958 \cdot 10^{-6}$	0	$2.844 \cdot 10^{-6}$	$2.844 \cdot 10^{-6}$	0
cHWtil	$2.021 \cdot 10^{-6}$	$2.021 \cdot 10^{-6}$	0	$1.552 \cdot 10^{-5}$	$1.552 \cdot 10^{-5}$	0
cHl311	$-1.533 \cdot 10^{-6}$	$-1.533 \cdot 10^{-6}$	0	$9.595 \cdot 10^{-8}$	$9.595 \cdot 10^{-8}$	0
cHl322	$-0.001712$	$-0.001712$	0	$0.0001062$	$0.0001062$	0
cHtbIm	$2.558 \cdot 10^{-8}$	$2.558 \cdot 10^{-8}$	0	$1.92 \cdot 10^{-6}$	$1.92 \cdot 10^{-6}$	0
cHtbRe	$-1.158 \cdot 10^{-7}$	$-1.158 \cdot 10^{-7}$	0	$5.49 \cdot 10^{-6}$	$5.49 \cdot 10^{-6}$	0
cbHIm	$1.739 \cdot 10^{-5}$	$1.739 \cdot 10^{-5}$	0	$5.793 \cdot 10^{-6}$	$5.793 \cdot 10^{-6}$	0
cbHRe	$-3.592 \cdot 10^{-7}$	$-3.592 \cdot 10^{-7}$	0	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0
cbWIm	$-1.009 \cdot 10^{-7}$	$-1.009 \cdot 10^{-7}$	0	$9.64 \cdot 10^{-6}$	$9.64 \cdot 10^{-6}$	0
cbWRe	$7.678 \cdot 10^{-8}$	$7.678 \cdot 10^{-8}$	0	$1.057 \cdot 10^{-5}$	$1.057 \cdot 10^{-5}$	0
cll1221	$-1.822 \cdot 10^{-7}$	$-1.822 \cdot 10^{-7}$	0	$1.467 \cdot 10^{-7}$	$1.467 \cdot 10^{-7}$	0
ctHIm	$1.785 \cdot 10^{-5}$	$1.785 \cdot 10^{-5}$	0	$1.511 \cdot 10^{-5}$	$1.511 \cdot 10^{-5}$	0
ctHRe	$1.976 \cdot 10^{-5}$	$1.976 \cdot 10^{-5}$	0	$1.827 \cdot 10^{-5}$	$1.827 \cdot 10^{-5}$	0
ctWIm	$-1.061 \cdot 10^{-5}$	$-1.061 \cdot 10^{-5}$	0	$2.824 \cdot 10^{-5}$	$2.824 \cdot 10^{-5}$	0
ctWRe	$-0.01359$	$-0.01359$	0	$0.0009886$	$0.0009886$	0
sm	0	0	0	$3.354 \cdot 10^{-6}$	$3.354 \cdot 10^{-6}$	0

## 1.12 $HH \rightarrow W^+ e^- \bar{\nu}_e$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$2.009 \cdot 10^{-7}$	$2.009 \cdot 10^{-7}$	0	$2.063 \cdot 10^{-8}$	$2.063 \cdot 10^{-8}$	0
cHDD	$-4.6 \cdot 10^{-5}$	$-4.6 \cdot 10^{-5}$	0	$8.803 \cdot 10^{-6}$	$8.803 \cdot 10^{-6}$	0
cHW	0.0002479	0.0002479	0	0.001881	0.001881	0
cHWB	$-3.272 \cdot 10^{-7}$	$-3.272 \cdot 10^{-7}$	0	$7.18 \cdot 10^{-8}$	$7.18 \cdot 10^{-8}$	0
cHWtil	$6.803 \cdot 10^{-9}$	$6.803 \cdot 10^{-9}$	0	$9.541 \cdot 10^{-8}$	$9.541 \cdot 10^{-8}$	0
cHl311	$2.687 \cdot 10^{-7}$	$2.687 \cdot 10^{-7}$	0	$5.971 \cdot 10^{-7}$	$5.971 \cdot 10^{-7}$	0

cHl322	$-5.37 \cdot 10^{-8}$	$-5.37 \cdot 10^{-8}$	0	$5.518 \cdot 10^{-9}$	$5.518 \cdot 10^{-9}$	0
ceHIm11	$1.532 \cdot 10^{-11}$	$1.532 \cdot 10^{-11}$	0	$8.906 \cdot 10^{-7}$	$8.906 \cdot 10^{-7}$	0
ceHRe11	$-1.467 \cdot 10^{-11}$	$-1.467 \cdot 10^{-11}$	0	$5.044 \cdot 10^{-7}$	$5.044 \cdot 10^{-7}$	0
ceWIm11	$2.768 \cdot 10^{-12}$	$2.768 \cdot 10^{-12}$	0	$8.503 \cdot 10^{-7}$	$8.503 \cdot 10^{-7}$	0
ceWRe11	$-6.813 \cdot 10^{-12}$	$-6.813 \cdot 10^{-12}$	0	$6.32 \cdot 10^{-7}$	$6.32 \cdot 10^{-7}$	0
cll1221	$2.277 \cdot 10^{-9}$	$2.277 \cdot 10^{-9}$	0	$1.255 \cdot 10^{-10}$	$1.255 \cdot 10^{-10}$	0
sm	0	0	0	$4.93 \cdot 10^{-7}$	$4.93 \cdot 10^{-7}$	0

### 1.13 $HH \rightarrow W^- u \bar{d}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$1.118 \cdot 10^{-8}$	$1.118 \cdot 10^{-8}$	0	$5.316 \cdot 10^{-10}$	$5.316 \cdot 10^{-10}$	0
cHDD	$-1.958 \cdot 10^{-7}$	$-1.958 \cdot 10^{-7}$	0	$2.667 \cdot 10^{-8}$	$2.667 \cdot 10^{-8}$	0
cHW	$1.337 \cdot 10^{-6}$	$1.337 \cdot 10^{-6}$	0	$4.026 \cdot 10^{-6}$	$4.026 \cdot 10^{-6}$	0
cHWB	$-1.378 \cdot 10^{-6}$	$-1.378 \cdot 10^{-6}$	0	$1.722 \cdot 10^{-7}$	$1.722 \cdot 10^{-7}$	0
cHWtil	$1.291 \cdot 10^{-6}$	$1.291 \cdot 10^{-6}$	0	$2.534 \cdot 10^{-5}$	$2.534 \cdot 10^{-5}$	0
cHj3	$3.194 \cdot 10^{-5}$	$3.194 \cdot 10^{-5}$	0	0.0001253	0.0001253	0
cHl311	$-3.245 \cdot 10^{-7}$	$-3.245 \cdot 10^{-7}$	0	$2.642 \cdot 10^{-8}$	$2.642 \cdot 10^{-8}$	0
cHl322	$-2.333 \cdot 10^{-6}$	$-2.333 \cdot 10^{-6}$	0	$4.218 \cdot 10^{-7}$	$4.218 \cdot 10^{-7}$	0
cHudIm	$7.788 \cdot 10^{-26}$	$7.788 \cdot 10^{-26}$	$-1.335 \cdot 10^{-6}$	$1.911 \cdot 10^{-25}$	$1.911 \cdot 10^{-25}$	$-2.669 \cdot 10^{-6}$
cHudRe	$-9.859 \cdot 10^{-24}$	$-9.859 \cdot 10^{-24}$	$-1.329 \cdot 10^{-6}$	$9.534 \cdot 10^{-25}$	$9.534 \cdot 10^{-25}$	$-2.664 \cdot 10^{-6}$
cdHIm	$-1.303 \cdot 10^{-15}$	$-1.303 \cdot 10^{-15}$	$-5.371 \cdot 10^{-7}$	$8.028 \cdot 10^{-16}$	$8.028 \cdot 10^{-16}$	$-1.171 \cdot 10^{-6}$
cdHRe	$-4.599 \cdot 10^{-15}$	$-4.599 \cdot 10^{-15}$	$-5.871 \cdot 10^{-7}$	$4.315 \cdot 10^{-15}$	$4.315 \cdot 10^{-15}$	$-1.159 \cdot 10^{-6}$
cdWIm	$1.602 \cdot 10^{-16}$	$1.602 \cdot 10^{-16}$	$-5.617 \cdot 10^{-7}$	$6.837 \cdot 10^{-15}$	$6.837 \cdot 10^{-15}$	$-1.17 \cdot 10^{-6}$
cdWRe	$-5.436 \cdot 10^{-16}$	$-5.436 \cdot 10^{-16}$	$-5.887 \cdot 10^{-7}$	$2.47 \cdot 10^{-15}$	$2.47 \cdot 10^{-15}$	$-1.174 \cdot 10^{-6}$
cll1221	$1.329 \cdot 10^{-6}$	$1.329 \cdot 10^{-6}$	0	$8.049 \cdot 10^{-8}$	$8.049 \cdot 10^{-8}$	0
cuHIm	$1.108 \cdot 10^{-15}$	$1.108 \cdot 10^{-15}$	$-7.222 \cdot 10^{-7}$	$2.107 \cdot 10^{-16}$	$2.107 \cdot 10^{-16}$	$-1.424 \cdot 10^{-6}$
cuHRe	$-6.399 \cdot 10^{-16}$	$-6.399 \cdot 10^{-16}$	$-7.345 \cdot 10^{-7}$	$9.598 \cdot 10^{-16}$	$9.598 \cdot 10^{-16}$	$-1.448 \cdot 10^{-6}$

cuWIm	$2.437 \cdot 10^{-17}$	$2.437 \cdot 10^{-17}$	$-7.386 \cdot 10^{-7}$	$5.262 \cdot 10^{-16}$	$5.262 \cdot 10^{-16}$	$-1.444 \cdot 10^{-6}$
cuWRe	$-1.933 \cdot 10^{-15}$	$-1.933 \cdot 10^{-15}$	$-7.244 \cdot 10^{-7}$	$1.463 \cdot 10^{-15}$	$1.463 \cdot 10^{-15}$	$-1.435 \cdot 10^{-6}$
sm	0	0	0	0.01636	0.01636	0

### 1.14 $HH \rightarrow z\bar{b}b$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-7.856 \cdot 10^{-9}$	$-7.856 \cdot 10^{-9}$	0	$3.793 \cdot 10^{-9}$	$3.793 \cdot 10^{-9}$	0
cHB	$6.846 \cdot 10^{-8}$	$6.846 \cdot 10^{-8}$	0	$6.376 \cdot 10^{-8}$	$6.376 \cdot 10^{-8}$	0
cHBtil	$-2.394 \cdot 10^{-9}$	$-2.394 \cdot 10^{-9}$	0	$6.368 \cdot 10^{-8}$	$6.368 \cdot 10^{-8}$	0
cHDD	$-0.0001204$	$-0.0001204$	0	$2.834 \cdot 10^{-5}$	$2.834 \cdot 10^{-5}$	0
cHQ1	$6.95 \cdot 10^{-7}$	$6.95 \cdot 10^{-7}$	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0
cHQ3	$4.949 \cdot 10^{-7}$	$4.949 \cdot 10^{-7}$	0	$7.593 \cdot 10^{-7}$	$7.593 \cdot 10^{-7}$	0
cHW	$1.479 \cdot 10^{-6}$	$1.479 \cdot 10^{-6}$	0	$3.075 \cdot 10^{-6}$	$3.075 \cdot 10^{-6}$	0
cHWB	$1.394 \cdot 10^{-7}$	$1.394 \cdot 10^{-7}$	0	$3.542 \cdot 10^{-7}$	$3.542 \cdot 10^{-7}$	0
cHWBtil	$-1.643 \cdot 10^{-7}$	$-1.643 \cdot 10^{-7}$	0	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0
cHWtil	$-3.147 \cdot 10^{-6}$	$-3.147 \cdot 10^{-6}$	0	0.000329	0.000329	0
cHbq	$-1.685 \cdot 10^{-7}$	$-1.685 \cdot 10^{-7}$	0	$5.745 \cdot 10^{-7}$	$5.745 \cdot 10^{-7}$	0
cHl311	$-7.835 \cdot 10^{-8}$	$-7.835 \cdot 10^{-8}$	0	$4.196 \cdot 10^{-9}$	$4.196 \cdot 10^{-9}$	0
cHl322	$-6.06 \cdot 10^{-8}$	$-6.06 \cdot 10^{-8}$	0	$3.259 \cdot 10^{-9}$	$3.259 \cdot 10^{-9}$	0
cbBIm	$3.719 \cdot 10^{-9}$	$3.719 \cdot 10^{-9}$	0	$2.052 \cdot 10^{-7}$	$2.052 \cdot 10^{-7}$	0
cbBRe	$-1.159 \cdot 10^{-7}$	$-1.159 \cdot 10^{-7}$	0	$3.983 \cdot 10^{-7}$	$3.983 \cdot 10^{-7}$	0
cbHIm	$1.933 \cdot 10^{-6}$	$1.933 \cdot 10^{-6}$	0	$3.921 \cdot 10^{-6}$	$3.921 \cdot 10^{-6}$	0
cbHRe	$-1.041 \cdot 10^{-7}$	$-1.041 \cdot 10^{-7}$	0	$4.872 \cdot 10^{-6}$	$4.872 \cdot 10^{-6}$	0
cbWIm	$-6.368 \cdot 10^{-10}$	$-6.368 \cdot 10^{-10}$	0	$6.49 \cdot 10^{-7}$	$6.49 \cdot 10^{-7}$	0
cbWRe	$-1.205 \cdot 10^{-7}$	$-1.205 \cdot 10^{-7}$	0	$3.093 \cdot 10^{-6}$	$3.093 \cdot 10^{-6}$	0
c111221	$1.892 \cdot 10^{-8}$	$1.892 \cdot 10^{-8}$	0	$5.094 \cdot 10^{-10}$	$5.094 \cdot 10^{-10}$	0
sm	0	0	0	$4.728 \cdot 10^{-6}$	$4.728 \cdot 10^{-6}$	0



### 1.15 $HH \rightarrow z\nu_e\bar{\nu}_e$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$1.655 \cdot 10^{-7}$	$1.655 \cdot 10^{-7}$	0	$1.083 \cdot 10^{-8}$	$1.083 \cdot 10^{-8}$	0
cHB	$9.902 \cdot 10^{-8}$	$9.902 \cdot 10^{-8}$	0	$5.981 \cdot 10^{-8}$	$5.981 \cdot 10^{-8}$	0
cHBtil	$4.652 \cdot 10^{-8}$	$4.652 \cdot 10^{-8}$	0	$4.663 \cdot 10^{-8}$	$4.663 \cdot 10^{-8}$	0
cHDD	$-5.847 \cdot 10^{-9}$	$-5.847 \cdot 10^{-9}$	0	$1.149 \cdot 10^{-9}$	$1.149 \cdot 10^{-9}$	0
cHW	$7.518 \cdot 10^{-8}$	$7.518 \cdot 10^{-8}$	0	$3.046 \cdot 10^{-7}$	$3.046 \cdot 10^{-7}$	0
cHWB	$8.11 \cdot 10^{-8}$	$8.11 \cdot 10^{-8}$	0	$1.928 \cdot 10^{-7}$	$1.928 \cdot 10^{-7}$	0
cHWBtil	$-3.051 \cdot 10^{-7}$	$-3.051 \cdot 10^{-7}$	0	$4.918 \cdot 10^{-7}$	$4.918 \cdot 10^{-7}$	0
cHWtil	$-9.224 \cdot 10^{-8}$	$-9.224 \cdot 10^{-8}$	0	$8.1 \cdot 10^{-7}$	$8.1 \cdot 10^{-7}$	0
cHl111	$-3.441 \cdot 10^{-7}$	$-3.441 \cdot 10^{-7}$	0	$9.224 \cdot 10^{-8}$	$9.224 \cdot 10^{-8}$	0
cHl311	$8.156 \cdot 10^{-7}$	$8.156 \cdot 10^{-7}$	0	$1.046 \cdot 10^{-6}$	$1.046 \cdot 10^{-6}$	0
cHl322	$-7.29 \cdot 10^{-8}$	$-7.29 \cdot 10^{-8}$	0	$3.314 \cdot 10^{-9}$	$3.314 \cdot 10^{-9}$	0
c111221	$2.143 \cdot 10^{-8}$	$2.143 \cdot 10^{-8}$	0	$4.872 \cdot 10^{-10}$	$4.872 \cdot 10^{-10}$	0
sm	0	0	0	$1.044 \cdot 10^{-7}$	$1.044 \cdot 10^{-7}$	0

### 1.16 $HH \rightarrow zc\bar{c}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$9.838 \cdot 10^{-10}$	$9.838 \cdot 10^{-10}$	0	$2.061 \cdot 10^{-10}$	$2.061 \cdot 10^{-10}$	0
cHB	$2.864 \cdot 10^{-8}$	$2.864 \cdot 10^{-8}$	0	$2.018 \cdot 10^{-7}$	$2.018 \cdot 10^{-7}$	0
cHBtil	$-1.36 \cdot 10^{-8}$	$-1.36 \cdot 10^{-8}$	0	$1.496 \cdot 10^{-8}$	$1.496 \cdot 10^{-8}$	0
cHDD	$2.801 \cdot 10^{-9}$	$2.801 \cdot 10^{-9}$	0	$3.188 \cdot 10^{-9}$	$3.188 \cdot 10^{-9}$	0
cHW	$4.679 \cdot 10^{-7}$	$4.679 \cdot 10^{-7}$	0	$1.416 \cdot 10^{-6}$	$1.416 \cdot 10^{-6}$	0
cHWB	$4.542 \cdot 10^{-7}$	$4.542 \cdot 10^{-7}$	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0
cHWBtil	$-3.585 \cdot 10^{-8}$	$-3.585 \cdot 10^{-8}$	0	$4.039 \cdot 10^{-8}$	$4.039 \cdot 10^{-8}$	0

cHWtil	$-9.473 \cdot 10^{-8}$	$-9.473 \cdot 10^{-8}$	0	$1.236 \cdot 10^{-6}$	$1.236 \cdot 10^{-6}$	0
cHj1	$-1.995 \cdot 10^{-6}$	$-1.995 \cdot 10^{-6}$	0	$2.65 \cdot 10^{-6}$	$2.65 \cdot 10^{-6}$	0
cHj3	$7.014 \cdot 10^{-6}$	$7.014 \cdot 10^{-6}$	0	$2.563 \cdot 10^{-5}$	$2.563 \cdot 10^{-5}$	0
cHl311	$-5.67 \cdot 10^{-8}$	$-5.67 \cdot 10^{-8}$	0	$3.677 \cdot 10^{-9}$	$3.677 \cdot 10^{-9}$	0
cHl322	$-6.173 \cdot 10^{-8}$	$-6.173 \cdot 10^{-8}$	0	$4.002 \cdot 10^{-9}$	$4.002 \cdot 10^{-9}$	0
cHu	$3.17 \cdot 10^{-6}$	$3.17 \cdot 10^{-6}$	0	$2.564 \cdot 10^{-5}$	$2.564 \cdot 10^{-5}$	0
cll1221	$2.876 \cdot 10^{-8}$	$2.876 \cdot 10^{-8}$	0	$9.324 \cdot 10^{-10}$	$9.324 \cdot 10^{-10}$	0
cuBIm	$2.048 \cdot 10^{-11}$	$2.048 \cdot 10^{-11}$	$1.465 \cdot 10^{-7}$	$3.876 \cdot 10^{-11}$	$3.876 \cdot 10^{-11}$	$2.838 \cdot 10^{-7}$
cuBRe	$7.395 \cdot 10^{-11}$	$7.395 \cdot 10^{-11}$	$1.352 \cdot 10^{-7}$	$3.877 \cdot 10^{-11}$	$3.877 \cdot 10^{-11}$	$2.837 \cdot 10^{-7}$
cuHIm	$-2.804 \cdot 10^{-11}$	$-2.804 \cdot 10^{-11}$	$1.426 \cdot 10^{-7}$	$9.357 \cdot 10^{-11}$	$9.357 \cdot 10^{-11}$	$2.779 \cdot 10^{-7}$
cuHRe	$-7.559 \cdot 10^{-11}$	$-7.559 \cdot 10^{-11}$	$1.455 \cdot 10^{-7}$	$1.837 \cdot 10^{-10}$	$1.837 \cdot 10^{-10}$	$2.722 \cdot 10^{-7}$
cuWIm	$-3.785 \cdot 10^{-11}$	$-3.785 \cdot 10^{-11}$	$1.321 \cdot 10^{-7}$	$8.167 \cdot 10^{-11}$	$8.167 \cdot 10^{-11}$	$2.694 \cdot 10^{-7}$
cuWRe	$-1.09 \cdot 10^{-10}$	$-1.09 \cdot 10^{-10}$	$9.172 \cdot 10^{-8}$	$7.009 \cdot 10^{-11}$	$7.009 \cdot 10^{-11}$	$2.854 \cdot 10^{-7}$
sm	0	0	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0

### 1.17 $HH \rightarrow z d \bar{d}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$3.144 \cdot 10^{-9}$	$3.144 \cdot 10^{-9}$	0	$4.944 \cdot 10^{-10}$	$4.944 \cdot 10^{-10}$	0
cHB	$4.076 \cdot 10^{-8}$	$4.076 \cdot 10^{-8}$	0	$7.298 \cdot 10^{-8}$	$7.298 \cdot 10^{-8}$	0
cHBtil	$1.75 \cdot 10^{-7}$	$1.75 \cdot 10^{-7}$	0	$3.396 \cdot 10^{-6}$	$3.396 \cdot 10^{-6}$	0
cHDD	$-4.604 \cdot 10^{-9}$	$-4.604 \cdot 10^{-9}$	0	$7.737 \cdot 10^{-10}$	$7.737 \cdot 10^{-10}$	0
cHW	$4.337 \cdot 10^{-7}$	$4.337 \cdot 10^{-7}$	0	$2.544 \cdot 10^{-6}$	$2.544 \cdot 10^{-6}$	0
cHWB	$-7.189 \cdot 10^{-8}$	$-7.189 \cdot 10^{-8}$	0	$3.432 \cdot 10^{-7}$	$3.432 \cdot 10^{-7}$	0
cHWBtil	$7.025 \cdot 10^{-7}$	$7.025 \cdot 10^{-7}$	0	$1.397 \cdot 10^{-6}$	$1.397 \cdot 10^{-6}$	0
cHWtil	$1.003 \cdot 10^{-7}$	$1.003 \cdot 10^{-7}$	0	$2.803 \cdot 10^{-6}$	$2.803 \cdot 10^{-6}$	0
cHd	$-3.183 \cdot 10^{-7}$	$-3.183 \cdot 10^{-7}$	0	$2.599 \cdot 10^{-6}$	$2.599 \cdot 10^{-6}$	0
cHj1	$6.945 \cdot 10^{-7}$	$6.945 \cdot 10^{-7}$	0	$2.253 \cdot 10^{-7}$	$2.253 \cdot 10^{-7}$	0

cHj3	$3.231 \cdot 10^{-6}$	$3.231 \cdot 10^{-6}$	0	$4.689 \cdot 10^{-7}$	$4.689 \cdot 10^{-7}$	0
cHl311	$-3.279 \cdot 10^{-7}$	$-3.279 \cdot 10^{-7}$	0	$1.752 \cdot 10^{-8}$	$1.752 \cdot 10^{-8}$	0
cHl322	-0.0001753	-0.0001753	0	$9.369 \cdot 10^{-6}$	$9.369 \cdot 10^{-6}$	0
cdBIIm	$-4.661 \cdot 10^{-15}$	$-4.661 \cdot 10^{-15}$	$-6.007 \cdot 10^{-7}$	$1.64 \cdot 10^{-15}$	$1.64 \cdot 10^{-15}$	$-1.158 \cdot 10^{-6}$
cdBRe	$-4.872 \cdot 10^{-15}$	$-4.872 \cdot 10^{-15}$	$-5.747 \cdot 10^{-7}$	$5.231 \cdot 10^{-16}$	$5.231 \cdot 10^{-16}$	$-1.166 \cdot 10^{-6}$
cdHIIm	$1.071 \cdot 10^{-15}$	$1.071 \cdot 10^{-15}$	$-6.534 \cdot 10^{-7}$	$7.403 \cdot 10^{-16}$	$7.403 \cdot 10^{-16}$	$-1.175 \cdot 10^{-6}$
cdHRe	$3.213 \cdot 10^{-15}$	$3.213 \cdot 10^{-15}$	$-5.914 \cdot 10^{-7}$	$7.104 \cdot 10^{-16}$	$7.104 \cdot 10^{-16}$	$-1.168 \cdot 10^{-6}$
cdWIm	$5.888 \cdot 10^{-15}$	$5.888 \cdot 10^{-15}$	$-5.774 \cdot 10^{-7}$	$2.109 \cdot 10^{-15}$	$2.109 \cdot 10^{-15}$	$-1.138 \cdot 10^{-6}$
cdWRe	$-8.826 \cdot 10^{-15}$	$-8.826 \cdot 10^{-15}$	$-5.891 \cdot 10^{-7}$	$1.717 \cdot 10^{-15}$	$1.717 \cdot 10^{-15}$	$-1.165 \cdot 10^{-6}$
cll1221	$3.071 \cdot 10^{-8}$	$3.071 \cdot 10^{-8}$	0	$8.206 \cdot 10^{-10}$	$8.206 \cdot 10^{-10}$	0
sm	0	0	0	$3.636 \cdot 10^{-7}$	$3.636 \cdot 10^{-7}$	0

### 1.18 $HH \rightarrow ze^+e^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.659 \cdot 10^{-9}$	$1.659 \cdot 10^{-9}$	0	$5.709 \cdot 10^{-10}$	$5.709 \cdot 10^{-10}$	0
cHB	$8.426 \cdot 10^{-8}$	$8.426 \cdot 10^{-8}$	0	$8.938 \cdot 10^{-7}$	$8.938 \cdot 10^{-7}$	0
cHBtil	$-1.052 \cdot 10^{-9}$	$-1.052 \cdot 10^{-9}$	0	$2.871 \cdot 10^{-8}$	$2.871 \cdot 10^{-8}$	0
cHDD	$-6.233 \cdot 10^{-11}$	$-6.233 \cdot 10^{-11}$	0	$3.88 \cdot 10^{-10}$	$3.88 \cdot 10^{-10}$	0
cHW	$-1.759 \cdot 10^{-7}$	$-1.759 \cdot 10^{-7}$	0	$6.168 \cdot 10^{-6}$	$6.168 \cdot 10^{-6}$	0
cHWB	0.0009537	0.0009537	0	0.007877	0.007877	0
cHWBtil	$-1.426 \cdot 10^{-8}$	$-1.426 \cdot 10^{-8}$	0	$6.217 \cdot 10^{-8}$	$6.217 \cdot 10^{-8}$	0
cHWtil	$1.478 \cdot 10^{-7}$	$1.478 \cdot 10^{-7}$	0	$3.681 \cdot 10^{-7}$	$3.681 \cdot 10^{-7}$	0
cHe11	$-1.496 \cdot 10^{-7}$	$-1.496 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-7}$	$2.152 \cdot 10^{-7}$	0
cHl111	$4.082 \cdot 10^{-7}$	$4.082 \cdot 10^{-7}$	0	$1.415 \cdot 10^{-6}$	$1.415 \cdot 10^{-6}$	0
cHl311	$1.356 \cdot 10^{-7}$	$1.356 \cdot 10^{-7}$	0	$1.152 \cdot 10^{-7}$	$1.152 \cdot 10^{-7}$	0
cHl322	$-3.59 \cdot 10^{-8}$	$-3.59 \cdot 10^{-8}$	0	$2.954 \cdot 10^{-9}$	$2.954 \cdot 10^{-9}$	0
ceBIIm11	$3.241 \cdot 10^{-13}$	$3.241 \cdot 10^{-13}$	0	$2.296 \cdot 10^{-7}$	$2.296 \cdot 10^{-7}$	0

ceBRe11	$6.144 \cdot 10^{-13}$	$6.144 \cdot 10^{-13}$	0	$4.591 \cdot 10^{-7}$	$4.591 \cdot 10^{-7}$	0
ceHIm11	$-5.165 \cdot 10^{-13}$	$-5.165 \cdot 10^{-13}$	0	$1.36 \cdot 10^{-7}$	$1.36 \cdot 10^{-7}$	0
ceHRe11	$1.028 \cdot 10^{-12}$	$1.028 \cdot 10^{-12}$	0	$3.537 \cdot 10^{-7}$	$3.537 \cdot 10^{-7}$	0
ceWIm11	$2.652 \cdot 10^{-13}$	$2.652 \cdot 10^{-13}$	0	$4.686 \cdot 10^{-7}$	$4.686 \cdot 10^{-7}$	0
ceWRe11	$-6.245 \cdot 10^{-14}$	$-6.245 \cdot 10^{-14}$	0	$1.319 \cdot 10^{-7}$	$1.319 \cdot 10^{-7}$	0
c111221	$5.752 \cdot 10^{-9}$	$5.752 \cdot 10^{-9}$	0	$2.367 \cdot 10^{-10}$	$2.367 \cdot 10^{-10}$	0
sm	0	0	0	$4.23 \cdot 10^{-7}$	$4.23 \cdot 10^{-7}$	0

### 1.19 $HH \rightarrow zt\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-4.168 \cdot 10^{-6}$	$-4.168 \cdot 10^{-6}$	0	$3.241 \cdot 10^{-7}$	$3.241 \cdot 10^{-7}$	0
cHB	$-2.187 \cdot 10^{-6}$	$-2.187 \cdot 10^{-6}$	0	$2.949 \cdot 10^{-7}$	$2.949 \cdot 10^{-7}$	0
cHBtil	$-4.653 \cdot 10^{-7}$	$-4.653 \cdot 10^{-7}$	0	$1.758 \cdot 10^{-7}$	$1.758 \cdot 10^{-7}$	0
cHDD	$-1.577 \cdot 10^{-5}$	$-1.577 \cdot 10^{-5}$	0	$1.579 \cdot 10^{-5}$	$1.579 \cdot 10^{-5}$	0
cHQ1	$3.933 \cdot 10^{-5}$	$3.933 \cdot 10^{-5}$	0	$3.704 \cdot 10^{-5}$	$3.704 \cdot 10^{-5}$	0
cHQ3	$-1.051 \cdot 10^{-5}$	$-1.051 \cdot 10^{-5}$	0	$2.096 \cdot 10^{-5}$	$2.096 \cdot 10^{-5}$	0
cHW	$-3.835 \cdot 10^{-6}$	$-3.835 \cdot 10^{-6}$	0	$1.988 \cdot 10^{-6}$	$1.988 \cdot 10^{-6}$	0
cHWB	$-5.991 \cdot 10^{-6}$	$-5.991 \cdot 10^{-6}$	0	$8.209 \cdot 10^{-7}$	$8.209 \cdot 10^{-7}$	0
cHWBtil	$1.203 \cdot 10^{-7}$	$1.203 \cdot 10^{-7}$	0	$4.61 \cdot 10^{-7}$	$4.61 \cdot 10^{-7}$	0
cHWtil	$8.999 \cdot 10^{-7}$	$8.999 \cdot 10^{-7}$	0	$9.088 \cdot 10^{-6}$	$9.088 \cdot 10^{-6}$	0
cHl311	$-6.717 \cdot 10^{-6}$	$-6.717 \cdot 10^{-6}$	0	$3.162 \cdot 10^{-7}$	$3.162 \cdot 10^{-7}$	0
cHl322	$-1.957 \cdot 10^{-6}$	$-1.957 \cdot 10^{-6}$	0	$9.605 \cdot 10^{-8}$	$9.605 \cdot 10^{-8}$	0
cHt	$1.451 \cdot 10^{-6}$	$1.451 \cdot 10^{-6}$	0	$1.502 \cdot 10^{-5}$	$1.502 \cdot 10^{-5}$	0
c111221	$3.076 \cdot 10^{-6}$	$3.076 \cdot 10^{-6}$	0	$7.613 \cdot 10^{-8}$	$7.613 \cdot 10^{-8}$	0
ctBIm	$3.288 \cdot 10^{-7}$	$3.288 \cdot 10^{-7}$	0	$7.587 \cdot 10^{-6}$	$7.587 \cdot 10^{-6}$	0
ctBRe	$-1.287 \cdot 10^{-6}$	$-1.287 \cdot 10^{-6}$	0	$1.709 \cdot 10^{-5}$	$1.709 \cdot 10^{-5}$	0
ctHIm	$4.137 \cdot 10^{-7}$	$4.137 \cdot 10^{-7}$	0	$8.075 \cdot 10^{-7}$	$8.075 \cdot 10^{-7}$	0

ctHRe	$-1.036 \cdot 10^{-5}$	$-1.036 \cdot 10^{-5}$	0	$7.303 \cdot 10^{-6}$	$7.303 \cdot 10^{-6}$	0
ctWIm	$-1.136 \cdot 10^{-6}$	$-1.136 \cdot 10^{-6}$	0	$9.007 \cdot 10^{-6}$	$9.007 \cdot 10^{-6}$	0
ctWRe	$4.068 \cdot 10^{-6}$	$4.068 \cdot 10^{-6}$	0	$5.355 \cdot 10^{-5}$	$5.355 \cdot 10^{-5}$	0
sm	0	0	0	0.001149	0.001149	0

## 1.20 $HH \rightarrow zz$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	0.5543	0.5543	0	0.06606	0.06606	0
cHB	0.01886	0.01886	0	0.2275	0.2275	0
cHBtil	$8.949 \cdot 10^{-17}$	$8.949 \cdot 10^{-17}$	0	0.2047	0.2047	0
cHDD	-0.3553	-0.3553	0	0.4426	0.4426	0
cHW	0.0197	0.0197	0	2.203	2.203	0
cHWB	0.05285	0.05285	0	0.8037	0.8037	0
cHWBtil	$-8.206 \cdot 10^{-17}$	$-8.206 \cdot 10^{-17}$	0	0.6664	0.6664	0
cHWtil	$-2.49 \cdot 10^{-16}$	$-2.49 \cdot 10^{-16}$	0	2.209	2.209	0
cHl311	-0.06269	-0.06269	0	0.0019	0.0019	0
cHl322	-0.01546	-0.01546	0	0.0004685	0.0004685	0
cll1221	0.004649	0.004649	0	$7.046 \cdot 10^{-5}$	$7.046 \cdot 10^{-5}$	0
sm	0	0	0	0.07679	0.07679	0

## 1.21 $HW^+ \rightarrow \gamma t \bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$2.097 \cdot 10^{-7}$	$2.097 \cdot 10^{-7}$	0	$6.398 \cdot 10^{-8}$	$6.398 \cdot 10^{-8}$	0
cHBtil	$-6.626 \cdot 10^{-7}$	$-6.626 \cdot 10^{-7}$	0	$1.872 \cdot 10^{-7}$	$1.872 \cdot 10^{-7}$	0
cHDD	$-1.317 \cdot 10^{-6}$	$-1.317 \cdot 10^{-6}$	0	$7.413 \cdot 10^{-8}$	$7.413 \cdot 10^{-8}$	0

cHQ3	$-6.258 \cdot 10^{-6}$	$-6.258 \cdot 10^{-6}$	0	$7.43 \cdot 10^{-6}$	$7.43 \cdot 10^{-6}$	0
cHW	$-2.04 \cdot 10^{-6}$	$-2.04 \cdot 10^{-6}$	0	$1.086 \cdot 10^{-6}$	$1.086 \cdot 10^{-6}$	0
cHWB	$-2.814 \cdot 10^{-7}$	$-2.814 \cdot 10^{-7}$	0	$6.553 \cdot 10^{-7}$	$6.553 \cdot 10^{-7}$	0
cHWBtil	$-8.171 \cdot 10^{-7}$	$-8.171 \cdot 10^{-7}$	0	$3.286 \cdot 10^{-6}$	$3.286 \cdot 10^{-6}$	0
cHWtil	$-1.361 \cdot 10^{-7}$	$-1.361 \cdot 10^{-7}$	0	$2.422 \cdot 10^{-6}$	$2.422 \cdot 10^{-6}$	0
cHl311	$-1.18 \cdot 10^{-7}$	$-1.18 \cdot 10^{-7}$	0	$7.658 \cdot 10^{-9}$	$7.658 \cdot 10^{-9}$	0
cHl322	$-4.28 \cdot 10^{-7}$	$-4.28 \cdot 10^{-7}$	0	$2.602 \cdot 10^{-8}$	$2.602 \cdot 10^{-8}$	0
cHtbIm	$-2.067 \cdot 10^{-8}$	$-2.067 \cdot 10^{-8}$	0	$6.292 \cdot 10^{-6}$	$6.292 \cdot 10^{-6}$	0
cHtbRe	$-1.309 \cdot 10^{-7}$	$-1.309 \cdot 10^{-7}$	0	$2.099 \cdot 10^{-7}$	$2.099 \cdot 10^{-7}$	0
cW	$2.781 \cdot 10^{-7}$	$2.781 \cdot 10^{-7}$	0	$1.67 \cdot 10^{-8}$	$1.67 \cdot 10^{-8}$	0
cWtil	$1.85 \cdot 10^{-7}$	$1.85 \cdot 10^{-7}$	0	$1.983 \cdot 10^{-6}$	$1.983 \cdot 10^{-6}$	0
cbBIm	$5.396 \cdot 10^{-8}$	$5.396 \cdot 10^{-8}$	0	$3.885 \cdot 10^{-7}$	$3.885 \cdot 10^{-7}$	0
cbBRe	$2.491 \cdot 10^{-7}$	$2.491 \cdot 10^{-7}$	0	$1.327 \cdot 10^{-5}$	$1.327 \cdot 10^{-5}$	0
cbHIm	$1.466 \cdot 10^{-9}$	$1.466 \cdot 10^{-9}$	0	$4.957 \cdot 10^{-8}$	$4.957 \cdot 10^{-8}$	0
cbHRe	$-2.264 \cdot 10^{-9}$	$-2.264 \cdot 10^{-9}$	0	$1.4 \cdot 10^{-8}$	$1.4 \cdot 10^{-8}$	0
cbWIm	$-1.688 \cdot 10^{-9}$	$-1.688 \cdot 10^{-9}$	0	$1.361 \cdot 10^{-6}$	$1.361 \cdot 10^{-6}$	0
cbWRe	$1.565 \cdot 10^{-8}$	$1.565 \cdot 10^{-8}$	0	$4.41 \cdot 10^{-6}$	$4.41 \cdot 10^{-6}$	0
cll1221	$7.19 \cdot 10^{-8}$	$7.19 \cdot 10^{-8}$	0	$1.89 \cdot 10^{-9}$	$1.89 \cdot 10^{-9}$	0
ctBIm	$1.198 \cdot 10^{-6}$	$1.198 \cdot 10^{-6}$	0	$1.535 \cdot 10^{-6}$	$1.535 \cdot 10^{-6}$	0
ctBRe	$-8.85 \cdot 10^{-7}$	$-8.85 \cdot 10^{-7}$	0	$3.255 \cdot 10^{-7}$	$3.255 \cdot 10^{-7}$	0
ctHIm	$-1.136 \cdot 10^{-7}$	$-1.136 \cdot 10^{-7}$	0	$6.553 \cdot 10^{-9}$	$6.553 \cdot 10^{-9}$	0
ctHRe	$4.504 \cdot 10^{-7}$	$4.504 \cdot 10^{-7}$	0	$6.941 \cdot 10^{-8}$	$6.941 \cdot 10^{-8}$	0
ctWIm	$3.424 \cdot 10^{-7}$	$3.424 \cdot 10^{-7}$	0	$2.56 \cdot 10^{-6}$	$2.56 \cdot 10^{-6}$	0
ctWRe	$-2.125 \cdot 10^{-7}$	$-2.125 \cdot 10^{-7}$	0	$1.525 \cdot 10^{-6}$	$1.525 \cdot 10^{-6}$	0
sm	0	0	0	$4.565 \cdot 10^{-5}$	$4.565 \cdot 10^{-5}$	0

## 1.22 $HW^+ \rightarrow \gamma u \bar{d}$

interference

square

	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-1.884 \cdot 10^{-8}$	$-1.884 \cdot 10^{-8}$	0	$2.028 \cdot 10^{-9}$	$2.028 \cdot 10^{-9}$	0
cHBtil	$5.953 \cdot 10^{-10}$	$5.953 \cdot 10^{-10}$	0	$3.496 \cdot 10^{-9}$	$3.496 \cdot 10^{-9}$	0
cHDD	$-6.376 \cdot 10^{-6}$	$-6.376 \cdot 10^{-6}$	0	$2.568 \cdot 10^{-7}$	$2.568 \cdot 10^{-7}$	0
cHW	$-3.096 \cdot 10^{-6}$	$-3.096 \cdot 10^{-6}$	0	$2.962 \cdot 10^{-5}$	$2.962 \cdot 10^{-5}$	0
cHWB	$-5.225 \cdot 10^{-8}$	$-5.225 \cdot 10^{-8}$	0	$1.136 \cdot 10^{-6}$	$1.136 \cdot 10^{-6}$	0
cHWBtil	$-1.799 \cdot 10^{-7}$	$-1.799 \cdot 10^{-7}$	0	$5.197 \cdot 10^{-6}$	$5.197 \cdot 10^{-6}$	0
cHWtil	$-1.276 \cdot 10^{-7}$	$-1.276 \cdot 10^{-7}$	0	$2.397 \cdot 10^{-6}$	$2.397 \cdot 10^{-6}$	0
cHj3	$7.109 \cdot 10^{-8}$	$7.109 \cdot 10^{-8}$	0	$8.264 \cdot 10^{-8}$	$8.264 \cdot 10^{-8}$	0
cHl311	$-4.556 \cdot 10^{-7}$	$-4.556 \cdot 10^{-7}$	0	$2.289 \cdot 10^{-8}$	$2.289 \cdot 10^{-8}$	0
cHl322	$-1.797 \cdot 10^{-9}$	$-1.797 \cdot 10^{-9}$	0	$9.026 \cdot 10^{-11}$	$9.026 \cdot 10^{-11}$	0
cHudIm	$4.159 \cdot 10^{-27}$	$4.159 \cdot 10^{-27}$	$-1.346 \cdot 10^{-6}$	$4.118 \cdot 10^{-27}$	$4.118 \cdot 10^{-27}$	$-2.647 \cdot 10^{-6}$
cHudRe	$-5.132 \cdot 10^{-26}$	$-5.132 \cdot 10^{-26}$	$-1.344 \cdot 10^{-6}$	$3.944 \cdot 10^{-27}$	$3.944 \cdot 10^{-27}$	$-2.662 \cdot 10^{-6}$
cW	$3.347 \cdot 10^{-5}$	$3.347 \cdot 10^{-5}$	0	0.0001118	0.0001118	0
cWtil	$-3.932 \cdot 10^{-9}$	$-3.932 \cdot 10^{-9}$	0	$1.919 \cdot 10^{-8}$	$1.919 \cdot 10^{-8}$	0
cdBIm	$6.541 \cdot 10^{-17}$	$6.541 \cdot 10^{-17}$	$-5.81 \cdot 10^{-7}$	$2.329 \cdot 10^{-16}$	$2.329 \cdot 10^{-16}$	$-1.202 \cdot 10^{-6}$
cdBRe	$2.183 \cdot 10^{-16}$	$2.183 \cdot 10^{-16}$	$-5.497 \cdot 10^{-7}$	$4.054 \cdot 10^{-15}$	$4.054 \cdot 10^{-15}$	$-1.184 \cdot 10^{-6}$
cdHIm	$-1.398 \cdot 10^{-16}$	$-1.398 \cdot 10^{-16}$	$-5.723 \cdot 10^{-7}$	$4.313 \cdot 10^{-18}$	$4.313 \cdot 10^{-18}$	$-1.182 \cdot 10^{-6}$
cdHRe	$-2.184 \cdot 10^{-16}$	$-2.184 \cdot 10^{-16}$	$-5.953 \cdot 10^{-7}$	$9.391 \cdot 10^{-17}$	$9.391 \cdot 10^{-17}$	$-1.171 \cdot 10^{-6}$
cdWIm	$-6.221 \cdot 10^{-16}$	$-6.221 \cdot 10^{-16}$	$-5.948 \cdot 10^{-7}$	$6.918 \cdot 10^{-16}$	$6.918 \cdot 10^{-16}$	$-1.185 \cdot 10^{-6}$
cdWRe	$1.005 \cdot 10^{-16}$	$1.005 \cdot 10^{-16}$	$-5.972 \cdot 10^{-7}$	$1.791 \cdot 10^{-15}$	$1.791 \cdot 10^{-15}$	$-1.172 \cdot 10^{-6}$
cll1221	$7.996 \cdot 10^{-10}$	$7.996 \cdot 10^{-10}$	0	$2.009 \cdot 10^{-11}$	$2.009 \cdot 10^{-11}$	0
cuBIm	$1.616 \cdot 10^{-16}$	$1.616 \cdot 10^{-16}$	$-6.808 \cdot 10^{-7}$	$2.936 \cdot 10^{-16}$	$2.936 \cdot 10^{-16}$	$-1.465 \cdot 10^{-6}$
cuBRe	$2.404 \cdot 10^{-16}$	$2.404 \cdot 10^{-16}$	$-7.07 \cdot 10^{-7}$	$2.936 \cdot 10^{-16}$	$2.936 \cdot 10^{-16}$	$-1.465 \cdot 10^{-6}$
cuHIm	$-1.335 \cdot 10^{-17}$	$-1.335 \cdot 10^{-17}$	$-7.489 \cdot 10^{-7}$	$1.785 \cdot 10^{-18}$	$1.785 \cdot 10^{-18}$	$-1.456 \cdot 10^{-6}$
cuHRe	$-4.453 \cdot 10^{-17}$	$-4.453 \cdot 10^{-17}$	$-7.187 \cdot 10^{-7}$	$1.99 \cdot 10^{-17}$	$1.99 \cdot 10^{-17}$	$-1.407 \cdot 10^{-6}$
cuWIm	$4.279 \cdot 10^{-18}$	$4.279 \cdot 10^{-18}$	$-7.245 \cdot 10^{-7}$	$2.199 \cdot 10^{-16}$	$2.199 \cdot 10^{-16}$	$-1.455 \cdot 10^{-6}$
cuWRe	$2.482 \cdot 10^{-17}$	$2.482 \cdot 10^{-17}$	$-7.253 \cdot 10^{-7}$	$8.602 \cdot 10^{-17}$	$8.602 \cdot 10^{-17}$	$-1.442 \cdot 10^{-6}$
sm	0	0	0	$7.604 \cdot 10^{-9}$	$7.604 \cdot 10^{-9}$	0

### 1.23 $HW^+ \rightarrow u\bar{d}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.001603	-0.001603	0	$6.455 \cdot 10^{-5}$	$6.455 \cdot 10^{-5}$	0
cHW	0.02053	0.02053	0	0.09766	0.09766	0
cHWB	-0.001958	-0.001958	0	0.0001414	0.0001414	0
cHWtil	$-2.153 \cdot 10^{-15}$	$-2.153 \cdot 10^{-15}$	0	0.05295	0.05295	0
cHj3	0.4348	0.4348	0	2.068	2.068	0
cHl311	-0.00455	-0.00455	0	0.0002286	0.0002286	0
cHl322	-0.002987	-0.002987	0	0.0001501	0.0001501	0
cHudIm	$3.735 \cdot 10^{-23}$	$3.735 \cdot 10^{-23}$	$-1.339 \cdot 10^{-6}$	$5.092 \cdot 10^{-20}$	$5.092 \cdot 10^{-20}$	$-2.651 \cdot 10^{-6}$
cHudRe	$-2.344 \cdot 10^{-19}$	$-2.344 \cdot 10^{-19}$	$-1.365 \cdot 10^{-6}$	$2.085 \cdot 10^{-20}$	$2.085 \cdot 10^{-20}$	$-2.685 \cdot 10^{-6}$
cdHIm	$-2.395 \cdot 10^{-13}$	$-2.395 \cdot 10^{-13}$	$-5.846 \cdot 10^{-7}$	$4.416 \cdot 10^{-11}$	$4.416 \cdot 10^{-11}$	$-1.178 \cdot 10^{-6}$
cdHRe	$-1.232 \cdot 10^{-10}$	$-1.232 \cdot 10^{-10}$	$-6.493 \cdot 10^{-7}$	$4.812 \cdot 10^{-11}$	$4.812 \cdot 10^{-11}$	$-1.185 \cdot 10^{-6}$
cdWIm	$-8.338 \cdot 10^{-15}$	$-8.338 \cdot 10^{-15}$	$-5.877 \cdot 10^{-7}$	$1.47 \cdot 10^{-9}$	$1.47 \cdot 10^{-9}$	$-1.157 \cdot 10^{-6}$
cdWRe	$-3.719 \cdot 10^{-11}$	$-3.719 \cdot 10^{-11}$	$-5.647 \cdot 10^{-7}$	$1.217 \cdot 10^{-9}$	$1.217 \cdot 10^{-9}$	$-1.151 \cdot 10^{-6}$
c111221	0.00141	0.00141	0	$3.542 \cdot 10^{-5}$	$3.542 \cdot 10^{-5}$	0
cuHIm	$5.12 \cdot 10^{-14}$	$5.12 \cdot 10^{-14}$	$-7.226 \cdot 10^{-7}$	$9.843 \cdot 10^{-12}$	$9.843 \cdot 10^{-12}$	$-1.443 \cdot 10^{-6}$
cuHRe	$-1.506 \cdot 10^{-12}$	$-1.506 \cdot 10^{-12}$	$-7.305 \cdot 10^{-7}$	$9.346 \cdot 10^{-12}$	$9.346 \cdot 10^{-12}$	$-1.455 \cdot 10^{-6}$
cuWIm	$1.081 \cdot 10^{-14}$	$1.081 \cdot 10^{-14}$	$-7.399 \cdot 10^{-7}$	$2.782 \cdot 10^{-10}$	$2.782 \cdot 10^{-10}$	$-1.438 \cdot 10^{-6}$
cuWRe	$-8.861 \cdot 10^{-12}$	$-8.861 \cdot 10^{-12}$	$-7.222 \cdot 10^{-7}$	$3.144 \cdot 10^{-10}$	$3.144 \cdot 10^{-10}$	$-1.431 \cdot 10^{-6}$
sm	0	0	0	0.01579	0.01579	0

### 1.24 $HW^- \rightarrow t\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.2778	-0.2778	0	0.04323	0.04323	0



cHQ3	-0.8785	-0.8785	0	1.625	1.625	0
cHW	-0.04916	-0.04916	0	0.05559	0.05559	0
cHWB	-0.6535	-0.6535	0	0.2252	0.2252	0
cHWtil	0.0003357	0.0003357	0	0.07877	0.07877	0
cHl311	-0.5289	-0.5289	0	0.03767	0.03767	0
cHl322	-2.495	-2.495	0	0.1242	0.1242	0
cHtbIm	$-7.782 \cdot 10^{-6}$	$-7.782 \cdot 10^{-6}$	0	0.4346	0.4346	0
cHtbRe	-0.01915	-0.01915	0	0.03724	0.03724	0
cbHIm	$7.863 \cdot 10^{-6}$	$7.863 \cdot 10^{-6}$	0	0.06449	0.06449	0
cbHRe	0.002021	0.002021	0	0.06318	0.06318	0
cbWIm	$-1.103 \cdot 10^{-5}$	$-1.103 \cdot 10^{-5}$	0	1.203	1.203	0
cbWRe	-0.006465	-0.006465	0	2.253	2.253	0
c111221	0.04643	0.04643	0	0.003957	0.003957	0
ctHIm	-0.0008855	-0.0008855	0	0.0585	0.0585	0
ctHRe	0.002998	0.002998	0	0.04921	0.04921	0
ctWIm	0.0002073	0.0002073	0	2.125	2.125	0
ctWRe	0.2427	0.2427	0	2.111	2.111	0
sm	0	0	0	0.2595	0.2595	0

## 1.25 $HW^- \rightarrow \gamma e^- \bar{\nu}_e$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$2.942 \cdot 10^{-9}$	$2.942 \cdot 10^{-9}$	0	$2.371 \cdot 10^{-8}$	$2.371 \cdot 10^{-8}$	0
cHBtil	$8.056 \cdot 10^{-9}$	$8.056 \cdot 10^{-9}$	0	$2.207 \cdot 10^{-8}$	$2.207 \cdot 10^{-8}$	0
cHDD	$-2.398 \cdot 10^{-9}$	$-2.398 \cdot 10^{-9}$	0	$9.658 \cdot 10^{-11}$	$9.658 \cdot 10^{-11}$	0
cHW	$1.658 \cdot 10^{-7}$	$1.658 \cdot 10^{-7}$	0	$6.965 \cdot 10^{-7}$	$6.965 \cdot 10^{-7}$	0
cHWB	$-3.79 \cdot 10^{-7}$	$-3.79 \cdot 10^{-7}$	0	$4.338 \cdot 10^{-6}$	$4.338 \cdot 10^{-6}$	0
cHWBtil	$-4.54 \cdot 10^{-7}$	$-4.54 \cdot 10^{-7}$	0	$2.06 \cdot 10^{-9}$	$2.06 \cdot 10^{-9}$	0

cHWtil	$-6.072 \cdot 10^{-10}$	$-6.072 \cdot 10^{-10}$	0	$2.453 \cdot 10^{-7}$	$2.453 \cdot 10^{-7}$	0
cHl311	$1.149 \cdot 10^{-8}$	$1.149 \cdot 10^{-8}$	0	$3.92 \cdot 10^{-8}$	$3.92 \cdot 10^{-8}$	0
cHl322	$-1.408 \cdot 10^{-9}$	$-1.408 \cdot 10^{-9}$	0	$7.072 \cdot 10^{-11}$	$7.072 \cdot 10^{-11}$	0
cW	$-4.561 \cdot 10^{-9}$	$-4.561 \cdot 10^{-9}$	0	$2.025 \cdot 10^{-10}$	$2.025 \cdot 10^{-10}$	0
cWtil	$-4.384 \cdot 10^{-9}$	$-4.384 \cdot 10^{-9}$	0	$3.136 \cdot 10^{-8}$	$3.136 \cdot 10^{-8}$	0
ceBIm11	$4.497 \cdot 10^{-13}$	$4.497 \cdot 10^{-13}$	0	$2.38 \cdot 10^{-8}$	$2.38 \cdot 10^{-8}$	0
ceBRe11	$-1.294 \cdot 10^{-13}$	$-1.294 \cdot 10^{-13}$	0	$1.057 \cdot 10^{-8}$	$1.057 \cdot 10^{-8}$	0
ceHIm11	$-6.208 \cdot 10^{-14}$	$-6.208 \cdot 10^{-14}$	0	$3.125 \cdot 10^{-8}$	$3.125 \cdot 10^{-8}$	0
ceHRe11	$-4.433 \cdot 10^{-14}$	$-4.433 \cdot 10^{-14}$	0	$5.003 \cdot 10^{-10}$	$5.003 \cdot 10^{-10}$	0
ceWIm11	$-9.069 \cdot 10^{-14}$	$-9.069 \cdot 10^{-14}$	0	$5.159 \cdot 10^{-7}$	$5.159 \cdot 10^{-7}$	0
ceWRe11	$9.242 \cdot 10^{-13}$	$9.242 \cdot 10^{-13}$	0	$2.538 \cdot 10^{-7}$	$2.538 \cdot 10^{-7}$	0
cll1221	$2.064 \cdot 10^{-9}$	$2.064 \cdot 10^{-9}$	0	$5.186 \cdot 10^{-11}$	$5.186 \cdot 10^{-11}$	0
sm	0	0	0	$1.043 \cdot 10^{-8}$	$1.043 \cdot 10^{-8}$	0

## 1.26 $HW^- \rightarrow \mu^- \bar{\nu}_\mu$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0004814	-0.0004814	0	$1.939 \cdot 10^{-5}$	$1.939 \cdot 10^{-5}$	0
cHW	0.004669	0.004669	0	0.02221	0.02221	0
cHWB	-0.002328	-0.002328	0	0.0001681	0.0001681	0
cHWtil	$1.422 \cdot 10^{-12}$	$1.422 \cdot 10^{-12}$	0	0.01797	0.01797	0
cHl311	-0.0009451	-0.0009451	0	$4.748 \cdot 10^{-5}$	$4.748 \cdot 10^{-5}$	0
cHl322	0.1254	0.1254	0	0.5905	0.5905	0
ceHIm22	$6.734 \cdot 10^{-8}$	$6.734 \cdot 10^{-8}$	0	0.02027	0.02027	0
ceHRe22	$-1.806 \cdot 10^{-5}$	$-1.806 \cdot 10^{-5}$	0	0.02142	0.02142	0
ceWIm22	$-2.818 \cdot 10^{-8}$	$-2.818 \cdot 10^{-8}$	0	0.3993	0.3993	0
ceWRe22	$-1.203 \cdot 10^{-5}$	$-1.203 \cdot 10^{-5}$	0	0.6826	0.6826	0
cll1221	0.0007563	0.0007563	0	$1.9 \cdot 10^{-5}$	$1.9 \cdot 10^{-5}$	0

sm	0	0	0	0.001156	0.001156	0
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### 1.27 $H\gamma \rightarrow b\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-2.592 \cdot 10^{-6}$	$-2.592 \cdot 10^{-6}$	0	0.006855	0.006855	0
cHBtil	$-1.706 \cdot 10^{-9}$	$-1.706 \cdot 10^{-9}$	0	0.005971	0.005971	0
cHDD	$-2.306 \cdot 10^{-6}$	$-2.306 \cdot 10^{-6}$	0	$1.747 \cdot 10^{-8}$	$1.747 \cdot 10^{-8}$	0
cHW	$-6.175 \cdot 10^{-7}$	$-6.175 \cdot 10^{-7}$	0	0.009445	0.009445	0
cHWB	$9.618 \cdot 10^{-7}$	$9.618 \cdot 10^{-7}$	0	0.006689	0.006689	0
cHWBtil	$-6.467 \cdot 10^{-10}$	$-6.467 \cdot 10^{-10}$	0	0.006826	0.006826	0
cHWtil	$9.464 \cdot 10^{-10}$	$9.464 \cdot 10^{-10}$	0	0.009745	0.009745	0
cHl311	$-7.212 \cdot 10^{-6}$	$-7.212 \cdot 10^{-6}$	0	$1.093 \cdot 10^{-7}$	$1.093 \cdot 10^{-7}$	0
cHl322	$-8.089 \cdot 10^{-6}$	$-8.089 \cdot 10^{-6}$	0	$1.226 \cdot 10^{-7}$	$1.226 \cdot 10^{-7}$	0
cbBIm	$4.774 \cdot 10^{-19}$	$4.774 \cdot 10^{-19}$	0	2.201	2.201	0
cbBRe	$-1.869 \cdot 10^{-6}$	$-1.869 \cdot 10^{-6}$	0	2.266	2.266	0
cbHIm	$-6.776 \cdot 10^{-21}$	$-6.776 \cdot 10^{-21}$	0	0.0004851	0.0004851	0
cbHRe	-0.0006008	-0.0006008	0	0.0007585	0.0007585	0
cbWIm	$3.309 \cdot 10^{-23}$	$3.309 \cdot 10^{-23}$	0	0.6397	0.6397	0
cbWRe	$6.431 \cdot 10^{-6}$	$6.431 \cdot 10^{-6}$	0	0.1109	0.1109	0
cll1221	$1.447 \cdot 10^{-5}$	$1.447 \cdot 10^{-5}$	0	$1.097 \cdot 10^{-7}$	$1.097 \cdot 10^{-7}$	0
sm	0	0	0	$9.926 \cdot 10^{-5}$	$9.926 \cdot 10^{-5}$	0

### 1.28 $H\gamma \rightarrow c\bar{c}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-4.794 \cdot 10^{-6}$	$-4.794 \cdot 10^{-6}$	0	0.02589	0.02589	0

cHBtil	$-2.971 \cdot 10^{-9}$	$-2.971 \cdot 10^{-9}$	0	0.03077	0.03077	0
cHDD	$-9.948 \cdot 10^{-7}$	$-9.948 \cdot 10^{-7}$	0	$7.539 \cdot 10^{-9}$	$7.539 \cdot 10^{-9}$	0
cHW	$-8.359 \cdot 10^{-6}$	$-8.359 \cdot 10^{-6}$	0	0.01596	0.01596	0
cHWB	$2.991 \cdot 10^{-9}$	$2.991 \cdot 10^{-9}$	0	0.01016	0.01016	0
cHWBtil	$1.893 \cdot 10^{-10}$	$1.893 \cdot 10^{-10}$	0	0.01196	0.01196	0
cHWtil	$-1.378 \cdot 10^{-9}$	$-1.378 \cdot 10^{-9}$	0	0.01496	0.01496	0
cHl311	$-3.611 \cdot 10^{-6}$	$-3.611 \cdot 10^{-6}$	0	$5.473 \cdot 10^{-8}$	$5.473 \cdot 10^{-8}$	0
cHl322	$-1.751 \cdot 10^{-6}$	$-1.751 \cdot 10^{-6}$	0	$2.654 \cdot 10^{-8}$	$2.654 \cdot 10^{-8}$	0
c1l1221	$2.036 \cdot 10^{-6}$	$2.036 \cdot 10^{-6}$	0	$1.543 \cdot 10^{-8}$	$1.543 \cdot 10^{-8}$	0
cuBIm	$3.222 \cdot 10^{-21}$	$3.222 \cdot 10^{-21}$	$-5.198 \cdot 10^{-5}$	0.0001006	0.0001006	$2.982 \cdot 10^{-7}$
cuBRe	$9.164 \cdot 10^{-10}$	$9.164 \cdot 10^{-10}$	$1.31 \cdot 10^{-7}$	0.0001006	0.0001006	$2.982 \cdot 10^{-7}$
cuHIm	$-6.353 \cdot 10^{-22}$	$-3.706 \cdot 10^{-22}$	0.4167	$1.062 \cdot 10^{-7}$	$1.062 \cdot 10^{-7}$	$2.825 \cdot 10^{-7}$
cuHRe	$-4.918 \cdot 10^{-6}$	$-4.918 \cdot 10^{-6}$	$1.423 \cdot 10^{-7}$	$1.491 \cdot 10^{-7}$	$1.491 \cdot 10^{-7}$	$2.683 \cdot 10^{-7}$
cuWIm	$-2.629 \cdot 10^{-23}$	$-2.622 \cdot 10^{-23}$	0.002765	$2.736 \cdot 10^{-5}$	$2.736 \cdot 10^{-5}$	$2.924 \cdot 10^{-7}$
cuWRe	$2.326 \cdot 10^{-9}$	$2.326 \cdot 10^{-9}$	$1.72 \cdot 10^{-7}$	$6.669 \cdot 10^{-6}$	$6.669 \cdot 10^{-6}$	$2.699 \cdot 10^{-7}$
sm	0	0	0	$5.252 \cdot 10^{-5}$	$5.252 \cdot 10^{-5}$	0

## 1.29 $H\gamma \rightarrow d\bar{d}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-5.333 \cdot 10^{-12}$	$-5.333 \cdot 10^{-12}$	0	0.007466	0.007466	0
cHBtil	$7.89 \cdot 10^{-15}$	$7.89 \cdot 10^{-15}$	0	0.008073	0.008073	0
cHDD	$-1.225 \cdot 10^{-10}$	$-1.225 \cdot 10^{-10}$	0	$9.287 \cdot 10^{-13}$	$9.287 \cdot 10^{-13}$	0
cHW	$-4.285 \cdot 10^{-13}$	$-4.285 \cdot 10^{-13}$	0	0.009278	0.009278	0
cHWB	$2.118 \cdot 10^{-11}$	$2.118 \cdot 10^{-11}$	0	0.009747	0.009747	0
cHWBtil	$1.012 \cdot 10^{-14}$	$1.012 \cdot 10^{-14}$	0	0.01119	0.01119	0
cHWtil	$1.854 \cdot 10^{-15}$	$1.854 \cdot 10^{-15}$	0	0.01047	0.01047	0
cHl311	$-1.114 \cdot 10^{-11}$	$-1.114 \cdot 10^{-11}$	0	$1.688 \cdot 10^{-13}$	$1.688 \cdot 10^{-13}$	0

cHl322	$-1.557 \cdot 10^{-11}$	$-1.557 \cdot 10^{-11}$	0	$2.359 \cdot 10^{-13}$	$2.359 \cdot 10^{-13}$	0
cdBIm	$-1.956 \cdot 10^{-35}$	$-8.275 \cdot 10^{-36}$	0.5769	$1.026 \cdot 10^{-9}$	$1.026 \cdot 10^{-9}$	$-1.169 \cdot 10^{-6}$
cdBRe	$-7.694 \cdot 10^{-20}$	$-7.694 \cdot 10^{-20}$	$-5.848 \cdot 10^{-7}$	$1.429 \cdot 10^{-9}$	$1.429 \cdot 10^{-9}$	$-1.19 \cdot 10^{-6}$
cdHIm	$3.231 \cdot 10^{-27}$	$4.847 \cdot 10^{-27}$	-0.5	$1.588 \cdot 10^{-12}$	$1.588 \cdot 10^{-12}$	$-1.197 \cdot 10^{-6}$
cdHRe	$-3.115 \cdot 10^{-11}$	$-3.115 \cdot 10^{-11}$	$-5.778 \cdot 10^{-7}$	$9.443 \cdot 10^{-13}$	$9.443 \cdot 10^{-13}$	$-1.176 \cdot 10^{-6}$
cdWIm	$1.478 \cdot 10^{-27}$	$1.478 \cdot 10^{-27}$	$-6.088 \cdot 10^{-7}$	$1.975 \cdot 10^{-10}$	$1.975 \cdot 10^{-10}$	$-1.215 \cdot 10^{-6}$
cdWRe	$4.248 \cdot 10^{-20}$	$4.248 \cdot 10^{-20}$	$-5.886 \cdot 10^{-7}$	$4.355 \cdot 10^{-10}$	$4.355 \cdot 10^{-10}$	$-1.171 \cdot 10^{-6}$
cll1221	$2.874 \cdot 10^{-12}$	$2.874 \cdot 10^{-12}$	0	$2.178 \cdot 10^{-14}$	$2.178 \cdot 10^{-14}$	0
sm	0	0	0	$3.378 \cdot 10^{-10}$	$3.378 \cdot 10^{-10}$	0

### 1.30 $H\gamma \rightarrow e^+e^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-2.131 \cdot 10^{-15}$	$-2.131 \cdot 10^{-15}$	0	0.01496	0.01496	0
cHBtil	$2.333 \cdot 10^{-17}$	$2.333 \cdot 10^{-17}$	0	0.0174	0.0174	0
cHDD	$-1.553 \cdot 10^{-13}$	$-1.553 \cdot 10^{-13}$	0	$1.177 \cdot 10^{-15}$	$1.177 \cdot 10^{-15}$	0
cHW	$-2.633 \cdot 10^{-17}$	$-2.633 \cdot 10^{-17}$	0	0.003004	0.003004	0
cHWB	$1.322 \cdot 10^{-14}$	$1.322 \cdot 10^{-14}$	0	0.005258	0.005258	0
cHWBtil	$9.918 \cdot 10^{-18}$	$9.918 \cdot 10^{-18}$	0	0.005538	0.005538	0
cHWtil	$-1.94 \cdot 10^{-18}$	$-1.94 \cdot 10^{-18}$	0	0.003009	0.003009	0
cHl311	$-2.059 \cdot 10^{-13}$	$-2.059 \cdot 10^{-13}$	0	$3.12 \cdot 10^{-15}$	$3.12 \cdot 10^{-15}$	0
cHl322	$-4.746 \cdot 10^{-13}$	$-4.746 \cdot 10^{-13}$	0	$7.193 \cdot 10^{-15}$	$7.193 \cdot 10^{-15}$	0
ceBIm11	$2.138 \cdot 10^{-32}$	$2.138 \cdot 10^{-32}$	0	0.03166	0.03166	0
ceBRe11	$1.106 \cdot 10^{-18}$	$1.106 \cdot 10^{-18}$	0	0.711	0.711	0
ceHIm11	$3.176 \cdot 10^{-22}$	$3.176 \cdot 10^{-22}$	0	0.01142	0.01142	0
ceHRe11	$-1.756 \cdot 10^{-7}$	$-1.756 \cdot 10^{-7}$	0	0.001814	0.001814	0
ceWIm11	$3.542 \cdot 10^{-23}$	$3.542 \cdot 10^{-23}$	0	0.2332	0.2332	0
ceWRe11	$-3.349 \cdot 10^{-18}$	$-3.349 \cdot 10^{-18}$	0	0.2318	0.2318	0

c111221	$2.484 \cdot 10^{-12}$	$2.484 \cdot 10^{-12}$	0	$1.882 \cdot 10^{-14}$	$1.882 \cdot 10^{-14}$	0
sm	0	0	0	$3.856 \cdot 10^{-12}$	$3.856 \cdot 10^{-12}$	0

### 1.31 $H\gamma \rightarrow t\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	-0.03095	-0.03095	0	0.02119	0.02119	0
cHBtil	$-6.74 \cdot 10^{-6}$	$-6.74 \cdot 10^{-6}$	0	0.01844	0.01844	0
cHDD	-0.03301	-0.03301	0	0.0002501	0.0002501	0
cHW	-0.02391	-0.02391	0	0.01136	0.01136	0
cHWB	0.04384	0.04384	0	0.01434	0.01434	0
cHWBtil	-0.001279	-0.001279	0	0.01969	0.01969	0
cHWtil	$-1.405 \cdot 10^{-6}$	$-1.405 \cdot 10^{-6}$	0	0.009046	0.009046	0
cHl311	-0.03109	-0.03109	0	0.0004711	0.0004711	0
cHl322	-0.0337	-0.0337	0	0.0005108	0.0005108	0
c111221	0.01237	0.01237	0	$9.373 \cdot 10^{-5}$	$9.373 \cdot 10^{-5}$	0
ctBIm	$6.885 \cdot 10^{-18}$	$6.885 \cdot 10^{-18}$	0	2.166	2.166	0
ctBRe	0.2605	0.2605	0	2.778	2.778	0
ctHIm	$3.583 \cdot 10^{-18}$	$3.583 \cdot 10^{-18}$	0	0.00239	0.00239	0
ctHRe	-0.0907	-0.0907	0	0.002771	0.002771	0
ctWIm	$3.743 \cdot 10^{-17}$	$3.743 \cdot 10^{-17}$	0	0.6664	0.6664	0
ctWRe	0.3636	0.3636	0	0.3933	0.3933	0
sm	0	0	0	0.5175	0.5175	0

### 1.32 $H\gamma \rightarrow \mu^+\mu^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$

cHB	0.0003412	0.0003412	0	0.003556	0.003556	0
cHBtil	$2.662 \cdot 10^{-7}$	$2.662 \cdot 10^{-7}$	0	0.003874	0.003874	0
cHDD	$-6.533 \cdot 10^{-6}$	$-6.533 \cdot 10^{-6}$	0	$2.025 \cdot 10^{-6}$	$2.025 \cdot 10^{-6}$	0
cHW	0.00187	0.00187	0	0.009736	0.009736	0
cHWB	0.0008399	0.0008399	0	0.003156	0.003156	0
cHWBtil	$-2.84 \cdot 10^{-7}$	$-2.84 \cdot 10^{-7}$	0	0.003603	0.003603	0
cHWtil	$3.451 \cdot 10^{-7}$	$3.451 \cdot 10^{-7}$	0	0.009653	0.009653	0
cHe22	-0.01123	-0.01123	0	0.08767	0.08767	0
cHl122	0.04397	0.04397	0	0.3008	0.3008	0
cHl1311	-0.0003653	-0.0003653	0	$3.027 \cdot 10^{-5}$	$3.027 \cdot 10^{-5}$	0
cHl322	0.04924	0.04924	0	0.333	0.333	0
ceBIm22	$-1.16 \cdot 10^{-9}$	$-1.16 \cdot 10^{-9}$	0	0.1608	0.1608	0
ceBRe22	$-5.649 \cdot 10^{-7}$	$-5.649 \cdot 10^{-7}$	0	0.1371	0.1371	0
ceHIm22	$-1.242 \cdot 10^{-13}$	$-1.242 \cdot 10^{-13}$	0	0.02021	0.02021	0
ceHRe22	$2.074 \cdot 10^{-6}$	$2.074 \cdot 10^{-6}$	0	0.02028	0.02028	0
ceWIm22	$2.408 \cdot 10^{-8}$	$2.408 \cdot 10^{-8}$	0	0.4378	0.4378	0
ceWRe22	$-1.023 \cdot 10^{-6}$	$-1.023 \cdot 10^{-6}$	0	0.08867	0.08867	0
cll1221	$6.414 \cdot 10^{-5}$	$6.414 \cdot 10^{-5}$	0	$2.657 \cdot 10^{-6}$	$2.657 \cdot 10^{-6}$	0
sm	0	0	0	0.003297	0.003297	0

### 1.33 $H_z \rightarrow \nu_\tau \bar{\nu}_\tau$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	0.001219	0.001219	0	0.001038	0.001038	0
cHBtil	$3.162 \cdot 10^{-20}$	$3.162 \cdot 10^{-20}$	0	0.0008615	0.0008615	0
cHDD	$1.583 \cdot 10^{-18}$	$1.583 \cdot 10^{-18}$	0	$1.017 \cdot 10^{-34}$	$1.017 \cdot 10^{-34}$	0
cHW	0.00254	0.00254	0	0.007095	0.007095	0
cHWB	0.002164	0.002164	0	0.003338	0.003338	0

cHWBtil	$-9.035 \cdot 10^{-20}$	$-9.035 \cdot 10^{-20}$	0	0.002398	0.002398	0
cHWtil	$1.446 \cdot 10^{-19}$	$1.446 \cdot 10^{-19}$	0	0.006747	0.006747	0
cHl133	-0.03729	-0.03729	0	0.1359	0.1359	0
cHl311	-0.0002844	-0.0002844	0	$8.621 \cdot 10^{-6}$	$8.621 \cdot 10^{-6}$	0
cHl322	-0.0007968	-0.0007968	0	$2.415 \cdot 10^{-5}$	$2.415 \cdot 10^{-5}$	0
cHl333	0.09438	0.09438	0	0.3441	0.3441	0
cll1221	0.0003582	0.0003582	0	$5.429 \cdot 10^{-6}$	$5.429 \cdot 10^{-6}$	0
sm	0	0	0	0.004983	0.004983	0

### 1.34 $H_z \rightarrow b\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	0.0008637	0.0008637	0	0.001059	0.001059	0
cHBtil	$1.614 \cdot 10^{-7}$	$1.614 \cdot 10^{-7}$	0	0.001126	0.001126	0
cHDD	-0.0001053	-0.0001053	0	$1.03 \cdot 10^{-5}$	$1.03 \cdot 10^{-5}$	0
cHQ1	0.0406	0.0406	0	0.1815	0.1815	0
cHQ3	0.2228	0.2228	0	0.9671	0.9671	0
cHW	0.008251	0.008251	0	0.02747	0.02747	0
cHWB	0.001526	0.001526	0	0.003382	0.003382	0
cHWBtil	$1.613 \cdot 10^{-7}$	$1.613 \cdot 10^{-7}$	0	0.004281	0.004281	0
cHWtil	$2.182 \cdot 10^{-7}$	$2.182 \cdot 10^{-7}$	0	0.02337	0.02337	0
cHbq	-0.04184	-0.04184	0	1.008	1.008	0
cHl311	-0.002056	-0.002056	0	$8.047 \cdot 10^{-5}$	$8.047 \cdot 10^{-5}$	0
cHl322	-0.002114	-0.002114	0	$8.272 \cdot 10^{-5}$	$8.272 \cdot 10^{-5}$	0
cbBIm	$2.347 \cdot 10^{-6}$	$2.347 \cdot 10^{-6}$	0	0.2997	0.2997	0
cbBRe	-0.0006946	-0.0006946	0	0.06305	0.06305	0
cbHIm	$-1.117 \cdot 10^{-8}$	$-1.117 \cdot 10^{-8}$	0	0.06434	0.06434	0
cbHRe	$-8.475 \cdot 10^{-6}$	$-8.475 \cdot 10^{-6}$	0	0.06116	0.06116	0



cbWIm	$-3.559 \cdot 10^{-6}$	$-3.559 \cdot 10^{-6}$	0	1.164	1.164	0
cbWRe	-0.00127	-0.00127	0	1.152	1.152	0
cll1221	0.0007939	0.0007939	0	$1.555 \cdot 10^{-5}$	$1.555 \cdot 10^{-5}$	0
sm	0	0	0	0.01405	0.01405	0

### 1.35 $H_z \rightarrow s\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	0.001287	0.001287	0	0.00156	0.00156	0
cHBtil	$2.967 \cdot 10^{-7}$	$2.967 \cdot 10^{-7}$	0	0.001373	0.001373	0
cHDD	$-8.285 \cdot 10^{-5}$	$-8.285 \cdot 10^{-5}$	0	$8.213 \cdot 10^{-7}$	$8.213 \cdot 10^{-7}$	0
cHW	0.008056	0.008056	0	0.02662	0.02662	0
cHWB	0.00375	0.00375	0	0.005612	0.005612	0
cHWBtil	$-3.443 \cdot 10^{-8}$	$-3.443 \cdot 10^{-8}$	0	0.003409	0.003409	0
cHWtil	$-1.569 \cdot 10^{-7}$	$-1.569 \cdot 10^{-7}$	0	0.02174	0.02174	0
cHd	-0.01188	-0.01188	0	0.2781	0.2781	0
cHj1	0.1395	0.1395	0	0.6023	0.6023	0
cHj3	0.1644	0.1644	0	0.7099	0.7099	0
cHl311	-0.001077	-0.001077	0	$4.198 \cdot 10^{-5}$	$4.198 \cdot 10^{-5}$	0
cHl322	-0.00105	-0.00105	0	$4.093 \cdot 10^{-5}$	$4.093 \cdot 10^{-5}$	0
cdBIm	$3.804 \cdot 10^{-12}$	$3.804 \cdot 10^{-12}$	$3.155 \cdot 10^{-7}$	$1.369 \cdot 10^{-7}$	$1.369 \cdot 10^{-7}$	$5.845 \cdot 10^{-7}$
cdBRe	$-8.345 \cdot 10^{-9}$	$-8.345 \cdot 10^{-9}$	$3.235 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	$6.699 \cdot 10^{-7}$
cdHIm	$5.522 \cdot 10^{-15}$	$5.522 \cdot 10^{-15}$	$3.26 \cdot 10^{-7}$	$1.744 \cdot 10^{-8}$	$1.744 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$
cdHRe	$-1.051 \cdot 10^{-7}$	$-1.051 \cdot 10^{-7}$	$2.854 \cdot 10^{-7}$	$2.069 \cdot 10^{-8}$	$2.069 \cdot 10^{-8}$	$6.284 \cdot 10^{-7}$
cdWIm	$-4.79 \cdot 10^{-11}$	$-4.79 \cdot 10^{-11}$	$3.132 \cdot 10^{-7}$	$2.981 \cdot 10^{-7}$	$2.981 \cdot 10^{-7}$	$6.375 \cdot 10^{-7}$
cdWRe	$-1.512 \cdot 10^{-8}$	$-1.512 \cdot 10^{-8}$	$2.646 \cdot 10^{-7}$	$3.919 \cdot 10^{-7}$	$3.919 \cdot 10^{-7}$	$6.379 \cdot 10^{-7}$
cll1221	0.0002827	0.0002827	0	$5.509 \cdot 10^{-6}$	$5.509 \cdot 10^{-6}$	0
sm	0	0	0	0.01438	0.01438	0

### 1.36 $H_z \rightarrow t\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	-0.01381	-0.01381	0	0.00557	0.00557	0
cHBtil	-0.0003533	-0.0003533	0	0.008091	0.008091	0
cHDD	-0.1262	-0.1262	0	0.01168	0.01168	0
cHQ1	2.088	2.088	0	1.498	1.498	0
cHQ3	-2.089	-2.089	0	1.456	1.456	0
cHW	-0.04333	-0.04333	0	0.02498	0.02498	0
cHWB	-0.06391	-0.06391	0	0.009991	0.009991	0
cHWBtil	$-5.45 \cdot 10^{-6}$	$-5.45 \cdot 10^{-6}$	0	0.005017	0.005017	0
cHWtil	$8.306 \cdot 10^{-7}$	$8.306 \cdot 10^{-7}$	0	0.02487	0.02487	0
cHl311	-0.3183	-0.3183	0	0.01092	0.01092	0
cHl322	-0.4147	-0.4147	0	0.01415	0.01415	0
cHt	-2.239	-2.239	0	1.493	1.493	0
cll1221	0.5904	0.5904	0	0.01001	0.01001	0
ctBIm	0.0002589	0.0002589	0	0.5738	0.5738	0
ctBRe	-0.01796	-0.01796	0	0.8901	0.8901	0
ctHIm	-0.0001018	-0.0001018	0	0.06868	0.06868	0
ctHRe	-0.02136	-0.02136	0	0.06553	0.06553	0
ctWIm	$-7.636 \cdot 10^{-6}$	$-7.636 \cdot 10^{-6}$	0	2.891	2.891	0
ctWRe	0.3341	0.3341	0	0.6614	0.6614	0
sm	0	0	0	3.255	3.255	0

### 1.37 $H_z \rightarrow u\bar{u}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$

cHB	0.0006007	0.0006007	0	0.005038	0.005038	0
cHBtil	$-7.379 \cdot 10^{-7}$	$-7.379 \cdot 10^{-7}$	0	0.005274	0.005274	0
cHDD	-0.0001168	-0.0001168	0	$4.205 \cdot 10^{-6}$	$4.205 \cdot 10^{-6}$	0
cHW	0.006379	0.006379	0	0.02579	0.02579	0
cHWB	0.000994	0.000994	0	0.003886	0.003886	0
cHWBtil	$-9.444 \cdot 10^{-8}$	$-9.444 \cdot 10^{-8}$	0	0.003426	0.003426	0
cHWtil	$1.346 \cdot 10^{-7}$	$1.346 \cdot 10^{-7}$	0	0.02012	0.02012	0
cHj1	-0.1064	-0.1064	0	0.5634	0.5634	0
cHj3	0.09891	0.09891	0	0.5236	0.5236	0
cHl311	-0.0009977	-0.0009977	0	$5.354 \cdot 10^{-5}$	$5.354 \cdot 10^{-5}$	0
cHl322	-0.0008238	-0.0008238	0	$4.421 \cdot 10^{-5}$	$4.421 \cdot 10^{-5}$	0
cHu	0.04473	0.04473	0	0.5236	0.5236	0
cll1221	0.0008653	0.0008653	0	$2.322 \cdot 10^{-5}$	$2.322 \cdot 10^{-5}$	0
cuBIm	$-3.605 \cdot 10^{-15}$	$-3.605 \cdot 10^{-15}$	$-7.212 \cdot 10^{-7}$	$7.273 \cdot 10^{-11}$	$7.273 \cdot 10^{-11}$	$-1.457 \cdot 10^{-6}$
cuBRe	$2.466 \cdot 10^{-12}$	$2.466 \cdot 10^{-12}$	$-7.3 \cdot 10^{-7}$	$7.273 \cdot 10^{-11}$	$7.273 \cdot 10^{-11}$	$-1.457 \cdot 10^{-6}$
cuHIm	$2.629 \cdot 10^{-17}$	$2.629 \cdot 10^{-17}$	$-7.227 \cdot 10^{-7}$	$9.591 \cdot 10^{-12}$	$9.591 \cdot 10^{-12}$	$-1.449 \cdot 10^{-6}$
cuHRe	$1.834 \cdot 10^{-12}$	$1.834 \cdot 10^{-12}$	$-7.088 \cdot 10^{-7}$	$9.356 \cdot 10^{-12}$	$9.356 \cdot 10^{-12}$	$-1.454 \cdot 10^{-6}$
cuWIm	$2.036 \cdot 10^{-14}$	$2.036 \cdot 10^{-14}$	$-6.877 \cdot 10^{-7}$	$1.923 \cdot 10^{-10}$	$1.923 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$
cuWRe	$-4.467 \cdot 10^{-12}$	$-4.467 \cdot 10^{-12}$	$-7.388 \cdot 10^{-7}$	$1.153 \cdot 10^{-10}$	$1.153 \cdot 10^{-10}$	$-1.388 \cdot 10^{-6}$
sm	0	0	0	0.01058	0.01058	0

### 1.38 $W^+W^- \rightarrow Hb\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.244 \cdot 10^{-9}$	$1.244 \cdot 10^{-9}$	0	$3.581 \cdot 10^{-11}$	$3.581 \cdot 10^{-11}$	0
cHB	$-2.788 \cdot 10^{-8}$	$-2.788 \cdot 10^{-8}$	0	$1.422 \cdot 10^{-10}$	$1.422 \cdot 10^{-10}$	0
cHBtil	$-6.648 \cdot 10^{-9}$	$-6.648 \cdot 10^{-9}$	0	$7.237 \cdot 10^{-11}$	$7.237 \cdot 10^{-11}$	0
cHDD	$-2.49 \cdot 10^{-6}$	$-2.49 \cdot 10^{-6}$	0	$2.782 \cdot 10^{-7}$	$2.782 \cdot 10^{-7}$	0

cHQ1	$2.763 \cdot 10^{-6}$	$2.763 \cdot 10^{-6}$	0	$2.599 \cdot 10^{-7}$	$2.599 \cdot 10^{-7}$	0
cHQ3	$-5.351 \cdot 10^{-6}$	$-5.351 \cdot 10^{-6}$	0	$1.402 \cdot 10^{-6}$	$1.402 \cdot 10^{-6}$	0
cHW	$-4.884 \cdot 10^{-6}$	$-4.884 \cdot 10^{-6}$	0	$9.352 \cdot 10^{-6}$	$9.352 \cdot 10^{-6}$	0
cHWB	$-1.511 \cdot 10^{-6}$	$-1.511 \cdot 10^{-6}$	0	$2.841 \cdot 10^{-7}$	$2.841 \cdot 10^{-7}$	0
cHWBtil	$3.423 \cdot 10^{-8}$	$3.423 \cdot 10^{-8}$	0	$2.411 \cdot 10^{-8}$	$2.411 \cdot 10^{-8}$	0
cHWtil	$-9.93 \cdot 10^{-7}$	$-9.93 \cdot 10^{-7}$	0	$1.829 \cdot 10^{-6}$	$1.829 \cdot 10^{-6}$	0
cHbq	$-3.249 \cdot 10^{-8}$	$-3.249 \cdot 10^{-8}$	0	$7.577 \cdot 10^{-8}$	$7.577 \cdot 10^{-8}$	0
cHl311	$-4.184 \cdot 10^{-6}$	$-4.184 \cdot 10^{-6}$	0	$4.268 \cdot 10^{-7}$	$4.268 \cdot 10^{-7}$	0
cHl322	$-3.462 \cdot 10^{-5}$	$-3.462 \cdot 10^{-5}$	0	$2.632 \cdot 10^{-6}$	$2.632 \cdot 10^{-6}$	0
cHtbIm	$-8.58 \cdot 10^{-7}$	$-8.58 \cdot 10^{-7}$	0	$5.351 \cdot 10^{-7}$	$5.351 \cdot 10^{-7}$	0
cHtbRe	$-2.418 \cdot 10^{-8}$	$-2.418 \cdot 10^{-8}$	0	$2.081 \cdot 10^{-7}$	$2.081 \cdot 10^{-7}$	0
cW	$-6.802 \cdot 10^{-6}$	$-6.802 \cdot 10^{-6}$	0	$1.454 \cdot 10^{-5}$	$1.454 \cdot 10^{-5}$	0
cWtil	$-1.977 \cdot 10^{-7}$	$-1.977 \cdot 10^{-7}$	0	$3.727 \cdot 10^{-7}$	$3.727 \cdot 10^{-7}$	0
cbBIm	$9.653 \cdot 10^{-8}$	$9.653 \cdot 10^{-8}$	0	$8.784 \cdot 10^{-8}$	$8.784 \cdot 10^{-8}$	0
cbBRe	$3.953 \cdot 10^{-8}$	$3.953 \cdot 10^{-8}$	0	$1.032 \cdot 10^{-8}$	$1.032 \cdot 10^{-8}$	0
cbHIm	$-1.416 \cdot 10^{-8}$	$-1.416 \cdot 10^{-8}$	0	$9.897 \cdot 10^{-8}$	$9.897 \cdot 10^{-8}$	0
cbHRe	$3.048 \cdot 10^{-8}$	$3.048 \cdot 10^{-8}$	0	$2.499 \cdot 10^{-7}$	$2.499 \cdot 10^{-7}$	0
cbWIm	$-3.924 \cdot 10^{-8}$	$-3.924 \cdot 10^{-8}$	0	$1.199 \cdot 10^{-6}$	$1.199 \cdot 10^{-6}$	0
cbWRe	$9.392 \cdot 10^{-10}$	$9.392 \cdot 10^{-10}$	0	$2.995 \cdot 10^{-6}$	$2.995 \cdot 10^{-6}$	0
cll1221	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0	$6.081 \cdot 10^{-8}$	$6.081 \cdot 10^{-8}$	0
ctHIm	$-4.345 \cdot 10^{-8}$	$-4.345 \cdot 10^{-8}$	0	$2.262 \cdot 10^{-9}$	$2.262 \cdot 10^{-9}$	0
ctHRe	$7.609 \cdot 10^{-7}$	$7.609 \cdot 10^{-7}$	0	$3.404 \cdot 10^{-8}$	$3.404 \cdot 10^{-8}$	0
ctWIm	$5.805 \cdot 10^{-6}$	$5.805 \cdot 10^{-6}$	0	$5.631 \cdot 10^{-6}$	$5.631 \cdot 10^{-6}$	0
ctWRe	$-6.412 \cdot 10^{-7}$	$-6.412 \cdot 10^{-7}$	0	$4.705 \cdot 10^{-6}$	$4.705 \cdot 10^{-6}$	0
sm	0	0	0	$1.661 \cdot 10^{-7}$	$1.661 \cdot 10^{-7}$	0

### 1.39 $W^+W^- \rightarrow Hc\bar{c}$

interference

square

	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-3.362 \cdot 10^{-12}$	$-3.362 \cdot 10^{-12}$	0	$5.228 \cdot 10^{-12}$	$5.228 \cdot 10^{-12}$	0
cHB	$5.697 \cdot 10^{-9}$	$5.697 \cdot 10^{-9}$	0	$7.081 \cdot 10^{-10}$	$7.081 \cdot 10^{-10}$	0
cHBtil	$-8.818 \cdot 10^{-10}$	$-8.818 \cdot 10^{-10}$	0	$5.416 \cdot 10^{-11}$	$5.416 \cdot 10^{-11}$	0
cHDD	$-2.653 \cdot 10^{-5}$	$-2.653 \cdot 10^{-5}$	0	$2.12 \cdot 10^{-6}$	$2.12 \cdot 10^{-6}$	0
cHW	$-3.135 \cdot 10^{-7}$	$-3.135 \cdot 10^{-7}$	0	$6.492 \cdot 10^{-7}$	$6.492 \cdot 10^{-7}$	0
cHWB	$-7.532 \cdot 10^{-7}$	$-7.532 \cdot 10^{-7}$	0	$1.649 \cdot 10^{-7}$	$1.649 \cdot 10^{-7}$	0
cHWBtil	$4.72 \cdot 10^{-9}$	$4.72 \cdot 10^{-9}$	0	$4.913 \cdot 10^{-8}$	$4.913 \cdot 10^{-8}$	0
cHWtil	$-7.3 \cdot 10^{-8}$	$-7.3 \cdot 10^{-8}$	0	$8.036 \cdot 10^{-6}$	$8.036 \cdot 10^{-6}$	0
cHj1	$-8.83 \cdot 10^{-6}$	$-8.83 \cdot 10^{-6}$	0	$3.359 \cdot 10^{-7}$	$3.359 \cdot 10^{-7}$	0
cHj3	$1.676 \cdot 10^{-7}$	$1.676 \cdot 10^{-7}$	0	$2.367 \cdot 10^{-6}$	$2.367 \cdot 10^{-6}$	0
cHl311	$-7.422 \cdot 10^{-7}$	$-7.422 \cdot 10^{-7}$	0	$6.206 \cdot 10^{-8}$	$6.206 \cdot 10^{-8}$	0
cHl322	$-2.382 \cdot 10^{-7}$	$-2.382 \cdot 10^{-7}$	0	$2.002 \cdot 10^{-8}$	$2.002 \cdot 10^{-8}$	0
cHu	$7.188 \cdot 10^{-7}$	$7.188 \cdot 10^{-7}$	0	$1.626 \cdot 10^{-6}$	$1.626 \cdot 10^{-6}$	0
cHudIm	$-4.172 \cdot 10^{-19}$	$-4.172 \cdot 10^{-19}$	$4.554 \cdot 10^{-7}$	$2.161 \cdot 10^{-24}$	$2.161 \cdot 10^{-24}$	$9.257 \cdot 10^{-7}$
cHudRe	$-3.498 \cdot 10^{-17}$	$-3.498 \cdot 10^{-17}$	$4.86 \cdot 10^{-7}$	$4.845 \cdot 10^{-24}$	$4.845 \cdot 10^{-24}$	$9.288 \cdot 10^{-7}$
cW	$-7.637 \cdot 10^{-7}$	$-7.637 \cdot 10^{-7}$	0	$1.513 \cdot 10^{-6}$	$1.513 \cdot 10^{-6}$	0
cWtil	$-3.895 \cdot 10^{-9}$	$-3.895 \cdot 10^{-9}$	0	$4.429 \cdot 10^{-7}$	$4.429 \cdot 10^{-7}$	0
cdHIm	$-4.428 \cdot 10^{-14}$	$-4.428 \cdot 10^{-14}$	$3.161 \cdot 10^{-7}$	$1.138 \cdot 10^{-21}$	$1.138 \cdot 10^{-21}$	$6.153 \cdot 10^{-7}$
cdHRe	$2.445 \cdot 10^{-13}$	$2.445 \cdot 10^{-13}$	$3.272 \cdot 10^{-7}$	$7.378 \cdot 10^{-22}$	$7.378 \cdot 10^{-22}$	$6.37 \cdot 10^{-7}$
cdWIm	$1.174 \cdot 10^{-12}$	$1.174 \cdot 10^{-12}$	$3.408 \cdot 10^{-7}$	$1.023 \cdot 10^{-18}$	$1.023 \cdot 10^{-18}$	$5.864 \cdot 10^{-7}$
cdWRe	$-1.171 \cdot 10^{-13}$	$-1.171 \cdot 10^{-13}$	$2.562 \cdot 10^{-7}$	$2.411 \cdot 10^{-19}$	$2.411 \cdot 10^{-19}$	$6.637 \cdot 10^{-7}$
cll1221	$6.021 \cdot 10^{-7}$	$6.021 \cdot 10^{-7}$	0	$2.229 \cdot 10^{-8}$	$2.229 \cdot 10^{-8}$	0
cuBIm	$5.567 \cdot 10^{-13}$	$5.567 \cdot 10^{-13}$	$1.437 \cdot 10^{-7}$	$3.697 \cdot 10^{-13}$	$3.697 \cdot 10^{-13}$	$2.705 \cdot 10^{-7}$
cuBRe	$-9.818 \cdot 10^{-12}$	$-9.818 \cdot 10^{-12}$	$1.324 \cdot 10^{-7}$	$3.698 \cdot 10^{-13}$	$3.698 \cdot 10^{-13}$	$2.704 \cdot 10^{-7}$
cuHIm	$-1.47 \cdot 10^{-11}$	$-1.47 \cdot 10^{-11}$	$1.36 \cdot 10^{-7}$	$2.986 \cdot 10^{-12}$	$2.986 \cdot 10^{-12}$	$2.679 \cdot 10^{-7}$
cuHRe	$-1.909 \cdot 10^{-10}$	$-1.909 \cdot 10^{-10}$	$1.572 \cdot 10^{-7}$	$6.98 \cdot 10^{-12}$	$6.98 \cdot 10^{-12}$	$2.722 \cdot 10^{-7}$
cuWIm	$1.418 \cdot 10^{-10}$	$1.418 \cdot 10^{-10}$	$1.411 \cdot 10^{-7}$	$1.157 \cdot 10^{-10}$	$1.157 \cdot 10^{-10}$	$2.592 \cdot 10^{-7}$
cuWRe	$-7.883 \cdot 10^{-10}$	$-7.883 \cdot 10^{-10}$	$1.395 \cdot 10^{-7}$	$5.166 \cdot 10^{-10}$	$5.166 \cdot 10^{-10}$	$2.71 \cdot 10^{-7}$

sm	0	0	0	$1.364 \cdot 10^{-6}$	$1.364 \cdot 10^{-6}$	0
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#### 1.40 $W^+W^- \rightarrow Hdd\bar{d}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$2.758 \cdot 10^{-15}$	$2.758 \cdot 10^{-15}$	0	$7.119 \cdot 10^{-16}$	$7.119 \cdot 10^{-16}$	0
cHB	$-2.19 \cdot 10^{-8}$	$-2.19 \cdot 10^{-8}$	0	$2.45 \cdot 10^{-10}$	$2.45 \cdot 10^{-10}$	0
cHBtil	$5.011 \cdot 10^{-10}$	$5.011 \cdot 10^{-10}$	0	$2.095 \cdot 10^{-12}$	$2.095 \cdot 10^{-12}$	0
cHDD	$-2.898 \cdot 10^{-7}$	$-2.898 \cdot 10^{-7}$	0	$1.905 \cdot 10^{-8}$	$1.905 \cdot 10^{-8}$	0
cHW	$-2.324 \cdot 10^{-8}$	$-2.324 \cdot 10^{-8}$	0	$5.819 \cdot 10^{-9}$	$5.819 \cdot 10^{-9}$	0
cHWB	$-1.224 \cdot 10^{-5}$	$-1.224 \cdot 10^{-5}$	0	$1.997 \cdot 10^{-6}$	$1.997 \cdot 10^{-6}$	0
cHWBtil	$-3.661 \cdot 10^{-9}$	$-3.661 \cdot 10^{-9}$	0	$1.632 \cdot 10^{-8}$	$1.632 \cdot 10^{-8}$	0
cHWtil	$-2.066 \cdot 10^{-9}$	$-2.066 \cdot 10^{-9}$	0	$8.304 \cdot 10^{-10}$	$8.304 \cdot 10^{-10}$	0
cHd	$-3.848 \cdot 10^{-8}$	$-3.848 \cdot 10^{-8}$	0	$6.077 \cdot 10^{-7}$	$6.077 \cdot 10^{-7}$	0
cHj1	$3.446 \cdot 10^{-7}$	$3.446 \cdot 10^{-7}$	0	$4.607 \cdot 10^{-7}$	$4.607 \cdot 10^{-7}$	0
cHj3	$-8.884 \cdot 10^{-8}$	$-8.884 \cdot 10^{-8}$	0	$6.238 \cdot 10^{-7}$	$6.238 \cdot 10^{-7}$	0
cHl311	$-9.027 \cdot 10^{-7}$	$-9.027 \cdot 10^{-7}$	0	$7.694 \cdot 10^{-8}$	$7.694 \cdot 10^{-8}$	0
cHl322	$-1.822 \cdot 10^{-6}$	$-1.822 \cdot 10^{-6}$	0	$1.48 \cdot 10^{-7}$	$1.48 \cdot 10^{-7}$	0
cHudIm	$-1.119 \cdot 10^{-24}$	$-1.119 \cdot 10^{-24}$	$-1.341 \cdot 10^{-6}$	$3.111 \cdot 10^{-35}$	$3.111 \cdot 10^{-35}$	$-2.668 \cdot 10^{-6}$
cHudRe	$-1.083 \cdot 10^{-25}$	$-1.083 \cdot 10^{-25}$	$-1.385 \cdot 10^{-6}$	$4.555 \cdot 10^{-36}$	$4.555 \cdot 10^{-36}$	$-2.679 \cdot 10^{-6}$
cW	$-4.535 \cdot 10^{-7}$	$-4.535 \cdot 10^{-7}$	0	$4.691 \cdot 10^{-7}$	$4.691 \cdot 10^{-7}$	0
cWtil	$2.202 \cdot 10^{-7}$	$2.202 \cdot 10^{-7}$	0	$6.313 \cdot 10^{-7}$	$6.313 \cdot 10^{-7}$	0
cdBIm	$-3.217 \cdot 10^{-17}$	$-3.217 \cdot 10^{-17}$	$-5.907 \cdot 10^{-7}$	$2.125 \cdot 10^{-18}$	$2.125 \cdot 10^{-18}$	$-1.129 \cdot 10^{-6}$
cdBRe	$6.999 \cdot 10^{-17}$	$6.999 \cdot 10^{-17}$	$-5.858 \cdot 10^{-7}$	$3.497 \cdot 10^{-18}$	$3.497 \cdot 10^{-18}$	$-1.172 \cdot 10^{-6}$
cdHIm	$4.905 \cdot 10^{-17}$	$4.905 \cdot 10^{-17}$	$-5.912 \cdot 10^{-7}$	$6.925 \cdot 10^{-17}$	$6.925 \cdot 10^{-17}$	$-1.17 \cdot 10^{-6}$
cdHRe	$3.224 \cdot 10^{-15}$	$3.224 \cdot 10^{-15}$	$-5.893 \cdot 10^{-7}$	$4.922 \cdot 10^{-16}$	$4.922 \cdot 10^{-16}$	$-1.178 \cdot 10^{-6}$
cdWIm	$-1.003 \cdot 10^{-15}$	$-1.003 \cdot 10^{-15}$	$-5.98 \cdot 10^{-7}$	$1.033 \cdot 10^{-15}$	$1.033 \cdot 10^{-15}$	$-1.162 \cdot 10^{-6}$
cdWRe	$-2.787 \cdot 10^{-15}$	$-2.787 \cdot 10^{-15}$	$-5.741 \cdot 10^{-7}$	$1.446 \cdot 10^{-15}$	$1.446 \cdot 10^{-15}$	$-1.176 \cdot 10^{-6}$

c111221	$4.181 \cdot 10^{-8}$	$4.181 \cdot 10^{-8}$	0	$1.828 \cdot 10^{-9}$	$1.828 \cdot 10^{-9}$	0
cuHIm	$-9.653 \cdot 10^{-17}$	$-9.653 \cdot 10^{-17}$	$-7.251 \cdot 10^{-7}$	$1.231 \cdot 10^{-27}$	$1.231 \cdot 10^{-27}$	$-1.462 \cdot 10^{-6}$
cuHRe	$9.471 \cdot 10^{-17}$	$9.471 \cdot 10^{-17}$	$-7.18 \cdot 10^{-7}$	$2.028 \cdot 10^{-25}$	$2.028 \cdot 10^{-25}$	$-1.43 \cdot 10^{-6}$
cuWIm	$-1.342 \cdot 10^{-16}$	$-1.342 \cdot 10^{-16}$	$-6.707 \cdot 10^{-7}$	$1.987 \cdot 10^{-25}$	$1.987 \cdot 10^{-25}$	$-1.459 \cdot 10^{-6}$
cuWRe	$-1.042 \cdot 10^{-16}$	$-1.042 \cdot 10^{-16}$	$-7.681 \cdot 10^{-7}$	$8.134 \cdot 10^{-26}$	$8.134 \cdot 10^{-26}$	$-1.451 \cdot 10^{-6}$
sm	0	0	0	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	0

#### 1.41 $W^+W^- \rightarrow Ht\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$3.02 \cdot 10^{-7}$	$3.02 \cdot 10^{-7}$	0	$1.068 \cdot 10^{-7}$	$1.068 \cdot 10^{-7}$	0
cHB	$-6.345 \cdot 10^{-9}$	$-6.345 \cdot 10^{-9}$	0	$1.023 \cdot 10^{-9}$	$1.023 \cdot 10^{-9}$	0
cHBtil	$-9.617 \cdot 10^{-11}$	$-9.617 \cdot 10^{-11}$	0	$3.441 \cdot 10^{-12}$	$3.441 \cdot 10^{-12}$	0
cHDD	$-1.87 \cdot 10^{-5}$	$-1.87 \cdot 10^{-5}$	0	$1.949 \cdot 10^{-6}$	$1.949 \cdot 10^{-6}$	0
cHQ1	$-1.038 \cdot 10^{-6}$	$-1.038 \cdot 10^{-6}$	0	$1.842 \cdot 10^{-6}$	$1.842 \cdot 10^{-6}$	0
cHQ3	$8.289 \cdot 10^{-6}$	$8.289 \cdot 10^{-6}$	0	$9.67 \cdot 10^{-6}$	$9.67 \cdot 10^{-6}$	0
cHW	$1.584 \cdot 10^{-6}$	$1.584 \cdot 10^{-6}$	0	$1.54 \cdot 10^{-5}$	$1.54 \cdot 10^{-5}$	0
cHWB	$-7.406 \cdot 10^{-5}$	$-7.406 \cdot 10^{-5}$	0	$1.287 \cdot 10^{-5}$	$1.287 \cdot 10^{-5}$	0
cHWBtil	$-5.476 \cdot 10^{-8}$	$-5.476 \cdot 10^{-8}$	0	$2.161 \cdot 10^{-7}$	$2.161 \cdot 10^{-7}$	0
cHWtil	$-4.241 \cdot 10^{-7}$	$-4.241 \cdot 10^{-7}$	0	$1.014 \cdot 10^{-5}$	$1.014 \cdot 10^{-5}$	0
cHl311	$-3.063 \cdot 10^{-5}$	$-3.063 \cdot 10^{-5}$	0	$2.99 \cdot 10^{-6}$	$2.99 \cdot 10^{-6}$	0
cHl322	$-1.89 \cdot 10^{-5}$	$-1.89 \cdot 10^{-5}$	0	$1.816 \cdot 10^{-6}$	$1.816 \cdot 10^{-6}$	0
cHt	$-2.004 \cdot 10^{-6}$	$-2.004 \cdot 10^{-6}$	0	$1.267 \cdot 10^{-6}$	$1.267 \cdot 10^{-6}$	0
cHtbIm	$-2.667 \cdot 10^{-7}$	$-2.667 \cdot 10^{-7}$	0	$4.703 \cdot 10^{-9}$	$4.703 \cdot 10^{-9}$	0
cHtbRe	$-1.901 \cdot 10^{-7}$	$-1.901 \cdot 10^{-7}$	0	$1.2 \cdot 10^{-9}$	$1.2 \cdot 10^{-9}$	0
cW	$-7.962 \cdot 10^{-7}$	$-7.962 \cdot 10^{-7}$	0	$3.294 \cdot 10^{-6}$	$3.294 \cdot 10^{-6}$	0
cWtil	$2.318 \cdot 10^{-9}$	$2.318 \cdot 10^{-9}$	0	$6.878 \cdot 10^{-6}$	$6.878 \cdot 10^{-6}$	0
cbHIm	$-1.095 \cdot 10^{-8}$	$-1.095 \cdot 10^{-8}$	0	$7.083 \cdot 10^{-11}$	$7.083 \cdot 10^{-11}$	0

cbHRe	$2.693 \cdot 10^{-8}$	$2.693 \cdot 10^{-8}$	0	$2.259 \cdot 10^{-11}$	$2.259 \cdot 10^{-11}$	0
cbWIm	$5.461 \cdot 10^{-9}$	$5.461 \cdot 10^{-9}$	0	$9.737 \cdot 10^{-9}$	$9.737 \cdot 10^{-9}$	0
cbWRe	$-1.341 \cdot 10^{-7}$	$-1.341 \cdot 10^{-7}$	0	$8.601 \cdot 10^{-9}$	$8.601 \cdot 10^{-9}$	0
c111221	$1.757 \cdot 10^{-6}$	$1.757 \cdot 10^{-6}$	0	$9.89 \cdot 10^{-8}$	$9.89 \cdot 10^{-8}$	0
ctBIm	$8.569 \cdot 10^{-8}$	$8.569 \cdot 10^{-8}$	0	$2.079 \cdot 10^{-8}$	$2.079 \cdot 10^{-8}$	0
ctBRe	$1.065 \cdot 10^{-7}$	$1.065 \cdot 10^{-7}$	0	$3.409 \cdot 10^{-8}$	$3.409 \cdot 10^{-8}$	0
ctHIm	$5.747 \cdot 10^{-7}$	$5.747 \cdot 10^{-7}$	0	$6.392 \cdot 10^{-7}$	$6.392 \cdot 10^{-7}$	0
ctHRe	$2.891 \cdot 10^{-8}$	$2.891 \cdot 10^{-8}$	0	$1.455 \cdot 10^{-7}$	$1.455 \cdot 10^{-7}$	0
ctWIm	$1.958 \cdot 10^{-7}$	$1.958 \cdot 10^{-7}$	0	$2.37 \cdot 10^{-5}$	$2.37 \cdot 10^{-5}$	0
ctWRe	$1.207 \cdot 10^{-5}$	$1.207 \cdot 10^{-5}$	0	$2.678 \cdot 10^{-5}$	$2.678 \cdot 10^{-5}$	0
sm	0	0	0	$1.768 \cdot 10^{-5}$	$1.768 \cdot 10^{-5}$	0

#### 1.42 $W^+W^- \rightarrow W^+W^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-13.66	-13.66	0	0.7194	0.7194	0
cHW	0.2389	0.2389	0	2.746	2.746	0
cHWB	-1.395	-1.395	0	0.1566	0.1566	0
cHWBtil	$2.031 \cdot 10^{-17}$	$2.031 \cdot 10^{-17}$	0	0.5381	0.5381	0
cHWtil	$-7.226 \cdot 10^{-15}$	$-7.226 \cdot 10^{-15}$	0	2.482	2.482	0
cH1311	-7.395	-7.395	0	0.5402	0.5402	0
cH1322	-2.224	-2.224	0	0.1262	0.1262	0
cW	0.09953	0.09953	0	1.939	1.939	0
cWtil	$-2.716 \cdot 10^{-13}$	$-2.617 \cdot 10^{-13}$	0.03631	21.52	21.52	0
c111221	0.975	0.975	0	0.03631	0.03631	0
sm	0	0	0	25.83	25.83	0



### 1.43 $W^+W^- \rightarrow \gamma\gamma$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	-0.04689	-0.04689	0	0.2695	0.2695	0
cHBtil	$-5.214 \cdot 10^{-17}$	$-5.214 \cdot 10^{-17}$	0	0.2695	0.2695	0
cHW	-0.01225	-0.01225	0	0.02503	0.02503	0
cHWB	-0.001752	-0.001752	0	0.09934	0.09934	0
cHWBtil	$7.723 \cdot 10^{-18}$	$7.723 \cdot 10^{-18}$	0	0.08286	0.08286	0
cHWtil	$9.667 \cdot 10^{-18}$	$9.667 \cdot 10^{-18}$	0	0.02503	0.02503	0
cW	0.002373	0.002373	0	0.6888	0.6888	0
cWtil	$6.366 \cdot 10^{-18}$	$9.323 \cdot 10^{-18}$	-0.4645	0.719	0.719	0
sm	0	0	0	0.1896	0.1896	0

### 1.44 $W^+W^- \rightarrow \gamma\gamma\gamma$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	$1.924 \cdot 10^{-8}$	$1.924 \cdot 10^{-8}$	0	$4.07 \cdot 10^{-8}$	$4.07 \cdot 10^{-8}$	0
cHBtil	$1.128 \cdot 10^{-8}$	$1.128 \cdot 10^{-8}$	0	$2.888 \cdot 10^{-7}$	$2.888 \cdot 10^{-7}$	0
cHW	$-3.281 \cdot 10^{-8}$	$-3.281 \cdot 10^{-8}$	0	$5.549 \cdot 10^{-8}$	$5.549 \cdot 10^{-8}$	0
cHWB	$8.742 \cdot 10^{-8}$	$8.742 \cdot 10^{-8}$	0	$7.361 \cdot 10^{-8}$	$7.361 \cdot 10^{-8}$	0
cHWBtil	$-2.613 \cdot 10^{-9}$	$-2.613 \cdot 10^{-9}$	0	$8.436 \cdot 10^{-8}$	$8.436 \cdot 10^{-8}$	0
cHWtil	$-7.022 \cdot 10^{-11}$	$-7.022 \cdot 10^{-11}$	0	$6.411 \cdot 10^{-9}$	$6.411 \cdot 10^{-9}$	0
cW	$-4.452 \cdot 10^{-7}$	$-4.452 \cdot 10^{-7}$	0	$3.085 \cdot 10^{-6}$	$3.085 \cdot 10^{-6}$	0
cWtil	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0	$1.032 \cdot 10^{-6}$	$1.032 \cdot 10^{-6}$	0
sm	0	0	0	$5.512 \cdot 10^{-5}$	$5.512 \cdot 10^{-5}$	0

# 1.45 $\bar{b}t \rightarrow \bar{d}u$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.003641	-0.003641	0	$7.938 \cdot 10^{-5}$	$7.938 \cdot 10^{-5}$	0
cHQ3	$3.129 \cdot 10^{-5}$	$3.129 \cdot 10^{-5}$	0	$9.484 \cdot 10^{-7}$	$9.484 \cdot 10^{-7}$	0
cHWB	-0.005229	-0.005229	0	0.0002517	0.0002517	0
cHj3	0.0001299	0.0001299	0	$3.938 \cdot 10^{-6}$	$3.938 \cdot 10^{-6}$	0
cHl311	-0.0002268	-0.0002268	0	$9.888 \cdot 10^{-6}$	$9.888 \cdot 10^{-6}$	0
cHl322	-0.003784	-0.003784	0	0.000165	0.000165	0
cHtbIm	$-6.44 \cdot 10^{-22}$	$-6.44 \cdot 10^{-22}$	0	$3.015 \cdot 10^{-5}$	$3.015 \cdot 10^{-5}$	0
cHtbRe	$-1.96 \cdot 10^{-6}$	$-1.96 \cdot 10^{-6}$	0	$1.102 \cdot 10^{-6}$	$1.102 \cdot 10^{-6}$	0
cHudIm	$-6.887 \cdot 10^{-40}$	$-6.887 \cdot 10^{-40}$	$8.68 \cdot 10^{-5}$	$1.939 \cdot 10^{-24}$	$1.939 \cdot 10^{-24}$	$-2.681 \cdot 10^{-6}$
cHudRe	$3.298 \cdot 10^{-21}$	$3.298 \cdot 10^{-21}$	$-1.334 \cdot 10^{-6}$	$2.938 \cdot 10^{-24}$	$2.938 \cdot 10^{-24}$	$-2.655 \cdot 10^{-6}$
cQj31	0.004878	0.004878	0	0.02305	0.02305	0
cQj38	$1.35 \cdot 10^{-10}$	$4.249 \cdot 10^{-19}$	1	0.02127	0.02127	0
cQtjd1Im	$5.953 \cdot 10^{-14}$	$5.953 \cdot 10^{-14}$	$-5.879 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
cQtjd1Re	$-3.586 \cdot 10^{-10}$	$-3.586 \cdot 10^{-10}$	$-5.856 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
cQtjd8Im	$-4.07 \cdot 10^{-27}$	$-4.07 \cdot 10^{-27}$	$9.336 \cdot 10^{-7}$	$3.997 \cdot 10^{-11}$	$3.997 \cdot 10^{-11}$	$-1.176 \cdot 10^{-6}$
cQtjd8Re	$-3.88 \cdot 10^{-28}$	$-6.132 \cdot 10^{-27}$	-14.8	$3.997 \cdot 10^{-11}$	$3.997 \cdot 10^{-11}$	$-1.176 \cdot 10^{-6}$
cQujb1Im	$-3.058 \cdot 10^{-17}$	$-3.058 \cdot 10^{-17}$	$-7.195 \cdot 10^{-7}$	$2.884 \cdot 10^{-12}$	$2.884 \cdot 10^{-12}$	$-1.456 \cdot 10^{-6}$
cQujb1Re	$-1.163 \cdot 10^{-13}$	$-1.163 \cdot 10^{-13}$	$-7.736 \cdot 10^{-7}$	$1.031 \cdot 10^{-12}$	$1.031 \cdot 10^{-12}$	$-1.455 \cdot 10^{-6}$
cQujb8Im	$-9.059 \cdot 10^{-17}$	$-9.059 \cdot 10^{-17}$	$-7.285 \cdot 10^{-7}$	$3.548 \cdot 10^{-12}$	$3.548 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
cQujb8Re	$-5.408 \cdot 10^{-13}$	$-5.408 \cdot 10^{-13}$	$-7.211 \cdot 10^{-7}$	$3.548 \cdot 10^{-12}$	$3.548 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
cbWIm	$2.802 \cdot 10^{-19}$	$2.802 \cdot 10^{-19}$	0	0.009291	0.009291	0
cbWRe	-0.0003306	-0.0003306	0	0.007775	0.007775	0
cdWIm	$-1.294 \cdot 10^{-26}$	$-1.228 \cdot 10^{-26}$	0.05114	$4.68 \cdot 10^{-12}$	$4.68 \cdot 10^{-12}$	$-1.175 \cdot 10^{-6}$
cdWRe	$-8.328 \cdot 10^{-12}$	$-8.328 \cdot 10^{-12}$	$-5.884 \cdot 10^{-7}$	$8.595 \cdot 10^{-12}$	$8.595 \cdot 10^{-12}$	$-1.164 \cdot 10^{-6}$
cjQbd1Im	$-9.897 \cdot 10^{-16}$	$-9.897 \cdot 10^{-16}$	$-5.86 \cdot 10^{-7}$	$7.195 \cdot 10^{-10}$	$7.195 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
cjQbd1Re	$5.919 \cdot 10^{-12}$	$5.919 \cdot 10^{-12}$	$-5.913 \cdot 10^{-7}$	$7.195 \cdot 10^{-10}$	$7.195 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$

cjQbd8Im	$-1.323 \cdot 10^{-15}$	$-1.323 \cdot 10^{-15}$	$-6.047 \cdot 10^{-7}$	$1.599 \cdot 10^{-10}$	$1.599 \cdot 10^{-10}$	$-1.126 \cdot 10^{-6}$
cjQbd8Re	$7.937 \cdot 10^{-12}$	$7.937 \cdot 10^{-12}$	$-5.922 \cdot 10^{-7}$	$1.599 \cdot 10^{-10}$	$1.599 \cdot 10^{-10}$	$-1.188 \cdot 10^{-6}$
cjQtu1Im	$8.559 \cdot 10^{-15}$	$8.559 \cdot 10^{-15}$	$-7.244 \cdot 10^{-7}$	$1.539 \cdot 10^{-10}$	$1.539 \cdot 10^{-10}$	$-1.429 \cdot 10^{-6}$
cjQtu1Re	$5.112 \cdot 10^{-11}$	$5.112 \cdot 10^{-11}$	$-7.238 \cdot 10^{-7}$	$1.539 \cdot 10^{-10}$	$1.539 \cdot 10^{-10}$	$-1.494 \cdot 10^{-6}$
cjQtu8Im	$1.136 \cdot 10^{-14}$	$1.136 \cdot 10^{-14}$	$-7.924 \cdot 10^{-7}$	$3.42 \cdot 10^{-11}$	$3.42 \cdot 10^{-11}$	$-1.433 \cdot 10^{-6}$
cjQtu8Re	$6.819 \cdot 10^{-11}$	$6.819 \cdot 10^{-11}$	$-7.186 \cdot 10^{-7}$	$3.42 \cdot 10^{-11}$	$3.42 \cdot 10^{-11}$	$-1.462 \cdot 10^{-6}$
cjtQd1Im	$1.61 \cdot 10^{-14}$	$1.61 \cdot 10^{-14}$	$-6.211 \cdot 10^{-7}$	$1.16 \cdot 10^{-10}$	$1.16 \cdot 10^{-10}$	$-1.121 \cdot 10^{-6}$
cjtQd1Re	$-1.123 \cdot 10^{-10}$	$-1.123 \cdot 10^{-10}$	$-6.234 \cdot 10^{-7}$	$1.582 \cdot 10^{-10}$	$1.582 \cdot 10^{-10}$	$-1.201 \cdot 10^{-6}$
cjtQd8Im	$2.289 \cdot 10^{-14}$	$2.289 \cdot 10^{-14}$	$-5.679 \cdot 10^{-7}$	$2.93 \cdot 10^{-11}$	$2.93 \cdot 10^{-11}$	$-1.161 \cdot 10^{-6}$
cjtQd8Re	$-5.064 \cdot 10^{-11}$	$-5.064 \cdot 10^{-11}$	$-5.727 \cdot 10^{-7}$	$4.054 \cdot 10^{-12}$	$4.054 \cdot 10^{-12}$	$-1.159 \cdot 10^{-6}$
cjuQb1Im	$-3.193 \cdot 10^{-16}$	$-3.193 \cdot 10^{-16}$	$-7.203 \cdot 10^{-7}$	$3.848 \cdot 10^{-11}$	$3.848 \cdot 10^{-11}$	$-1.455 \cdot 10^{-6}$
cjuQb1Re	$-1.911 \cdot 10^{-12}$	$-1.911 \cdot 10^{-12}$	$-7.327 \cdot 10^{-7}$	$3.848 \cdot 10^{-11}$	$3.848 \cdot 10^{-11}$	$-1.455 \cdot 10^{-6}$
cjuQb8Im	$1.147 \cdot 10^{-29}$	$-3.722 \cdot 10^{-31}$	$1.032$	$8.551 \cdot 10^{-12}$	$8.551 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
cjuQb8Re	$-7.764 \cdot 10^{-30}$	$-4.842 \cdot 10^{-29}$	$-5.236$	$8.551 \cdot 10^{-12}$	$8.551 \cdot 10^{-12}$	$-1.45 \cdot 10^{-6}$
cll1221	0.002623	0.002623	0	$5.719 \cdot 10^{-5}$	$5.719 \cdot 10^{-5}$	0
ctWIm	$3.964 \cdot 10^{-18}$	$3.964 \cdot 10^{-18}$	0	0.008324	0.008324	0
ctWRe	-0.01604	-0.01604	0	0.003155	0.003155	0
cuWIm	$1.402 \cdot 10^{-26}$	$1.406 \cdot 10^{-26}$	$-0.003201$	$1.82 \cdot 10^{-12}$	$1.82 \cdot 10^{-12}$	$-1.484 \cdot 10^{-6}$
cuWRe	$1.757 \cdot 10^{-12}$	$1.757 \cdot 10^{-12}$	$-6.832 \cdot 10^{-7}$	$1.001 \cdot 10^{-12}$	$1.001 \cdot 10^{-12}$	$-1.398 \cdot 10^{-6}$
cutbd1Im	$8.759 \cdot 10^{-27}$	$8.759 \cdot 10^{-27}$	$-1.336 \cdot 10^{-6}$	$1.034 \cdot 10^{-19}$	$1.034 \cdot 10^{-19}$	$-2.612 \cdot 10^{-6}$
cutbd1Re	$-5.229 \cdot 10^{-23}$	$-5.229 \cdot 10^{-23}$	$-1.339 \cdot 10^{-6}$	$3.218 \cdot 10^{-21}$	$3.218 \cdot 10^{-21}$	$-2.673 \cdot 10^{-6}$
cutbd8Im	$1.168 \cdot 10^{-26}$	$1.168 \cdot 10^{-26}$	$-1.284 \cdot 10^{-6}$	$1.494 \cdot 10^{-20}$	$1.494 \cdot 10^{-20}$	$-2.61 \cdot 10^{-6}$
cutbd8Re	$-6.972 \cdot 10^{-23}$	$-6.972 \cdot 10^{-23}$	$-1.334 \cdot 10^{-6}$	$7.151 \cdot 10^{-22}$	$7.151 \cdot 10^{-22}$	$-2.671 \cdot 10^{-6}$
sm	0	0	0	0.02312	0.02312	0

## 1.46 $\gamma W^+ \rightarrow z W^+$

interference			square		
mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$

cHB	0.006812	0.006812	0	0.224	0.224	0
cHBtil	$5.023 \cdot 10^{-18}$	$5.023 \cdot 10^{-18}$	0	0.0007775	0.0007775	0
cHDD	-0.03286	-0.03286	0	0.0004673	0.0004673	0
cHW	0.018	0.018	0	0.00945	0.00945	0
cHWB	0.08575	0.08575	0	0.4899	0.4899	0
cHWBtil	$-1.479 \cdot 10^{-15}$	$-1.479 \cdot 10^{-15}$	0	0.521	0.521	0
cHWtil	$1.311 \cdot 10^{-16}$	$1.311 \cdot 10^{-16}$	0	0.00679	0.00679	0
cHl311	-18.65	-18.65	0	0.5303	0.5303	0
cHl322	-0.07086	-0.07086	0	0.002015	0.002015	0
cW	0.00538	0.00538	0	0.2996	0.2996	0
cWtil	$-3.647 \cdot 10^{-15}$	$-1.287 \cdot 10^{-16}$	0.9647	2.159	2.159	0
c111221	0.008241	0.008241	0	0.0001172	0.0001172	0
sm	0	0	0	17.94	17.94	0

### 1.47 $\mu^+\mu^- \rightarrow \tau^+\tau^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$5.316 \cdot 10^{-5}$	$5.316 \cdot 10^{-5}$	0	$2.434 \cdot 10^{-6}$	$2.434 \cdot 10^{-6}$	0
cHWB	-0.000287	-0.000287	0	0.0001262	0.0001262	0
cHe22	-0.0005347	-0.0005347	0	$9.911 \cdot 10^{-6}$	$9.911 \cdot 10^{-6}$	0
cHe33	-0.0006896	-0.0006896	0	$1.128 \cdot 10^{-5}$	$1.128 \cdot 10^{-5}$	0
cHl122	0.0009893	0.0009893	0	$1.631 \cdot 10^{-5}$	$1.631 \cdot 10^{-5}$	0
cHl133	0.0003526	0.0003526	0	$9.582 \cdot 10^{-6}$	$9.582 \cdot 10^{-6}$	0
cHl311	$-3.801 \cdot 10^{-7}$	$-3.801 \cdot 10^{-7}$	0	$1.29 \cdot 10^{-5}$	$1.29 \cdot 10^{-5}$	0
cHl322	$-4.689 \cdot 10^{-5}$	$-4.689 \cdot 10^{-5}$	0	$6.052 \cdot 10^{-6}$	$6.052 \cdot 10^{-6}$	0
cHl333	-0.0001449	-0.0001449	0	$9.387 \cdot 10^{-6}$	$9.387 \cdot 10^{-6}$	0
ceBIm22	$-2.563 \cdot 10^{-22}$	$-2.563 \cdot 10^{-22}$	0	0.005305	0.005305	0
ceBIm33	$-3.308 \cdot 10^{-22}$	$-3.308 \cdot 10^{-22}$	0	0.00294	0.00294	0

ceBRe22	$9.848 \cdot 10^{-6}$	$9.848 \cdot 10^{-6}$	0	0.003512	0.003512	0
ceBRe33	0.0001105	0.0001105	0	0.007949	0.007949	0
ceHIm22	$7.26 \cdot 10^{-27}$	$7.26 \cdot 10^{-27}$	0	$9.878 \cdot 10^{-8}$	$9.878 \cdot 10^{-8}$	0
ceHIm33	$4.481 \cdot 10^{-27}$	$4.481 \cdot 10^{-27}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
ceHRe22	$-1.964 \cdot 10^{-9}$	$-1.964 \cdot 10^{-9}$	0	$9.878 \cdot 10^{-8}$	$9.878 \cdot 10^{-8}$	0
ceHRe33	$-1.168 \cdot 10^{-10}$	$-1.168 \cdot 10^{-10}$	0	$3.492 \cdot 10^{-10}$	$3.492 \cdot 10^{-10}$	0
ceWIm22	$1.568 \cdot 10^{-21}$	$1.568 \cdot 10^{-21}$	0	0.005904	0.005904	0
ceWIm33	$7.651 \cdot 10^{-24}$	$7.651 \cdot 10^{-24}$	0	0.001224	0.001224	0
ceWRe22	$-5.7 \cdot 10^{-6}$	$-5.7 \cdot 10^{-6}$	0	0.004772	0.004772	0
ceWRe33	$-7.094 \cdot 10^{-5}$	$-7.094 \cdot 10^{-5}$	0	0.005714	0.005714	0
cee2233	0.01346	0.01346	0	0.05241	0.05241	0
cle2233	0.06384	0.06384	0	0.5004	0.5004	0
cle2332	$1.256 \cdot 10^{-5}$	$1.256 \cdot 10^{-5}$	0	2	2	0
cle3322	0.08942	0.08942	0	0.7009	0.7009	0
c111221	$6.03 \cdot 10^{-5}$	$6.03 \cdot 10^{-5}$	0	$4.27 \cdot 10^{-6}$	$4.27 \cdot 10^{-6}$	0
c112233	0.02255	0.02255	0	0.082	0.082	0
c112332	0.1557	0.1557	0	0.5663	0.5663	0
sm	0	0	0	0.007092	0.007092	0

#### 1.48 $\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-2.931	-2.931	0	0.04442	0.04442	0
cHWB	$1.549 \cdot 10^{-16}$	$1.549 \cdot 10^{-16}$	0	$1.252 \cdot 10^{-33}$	$1.252 \cdot 10^{-33}$	0
cH1133	-1.168	-1.168	0	0.0708	0.0708	0
cH1311	-0.02845	-0.02845	0	0.0008625	0.0008625	0
cH1322	-0.0005071	-0.0005071	0	$1.537 \cdot 10^{-5}$	$1.537 \cdot 10^{-5}$	0
cH1333	$2.175 \cdot 10^{-11}$	$2.175 \cdot 10^{-11}$	0	$1.319 \cdot 10^{-12}$	$1.319 \cdot 10^{-12}$	0

c111221	$4.42 \cdot 10^{-6}$	$4.42 \cdot 10^{-6}$	0	$6.699 \cdot 10^{-8}$	$6.699 \cdot 10^{-8}$	0
c113333	-16.72	-16.72	0	14.51	14.51	0
sm	0	0	0	$1.087 \cdot 10^{-11}$	$1.087 \cdot 10^{-11}$	0

### 1.49 $\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.00061	-0.00061	0	$9.244 \cdot 10^{-6}$	$9.244 \cdot 10^{-6}$	0
cHWB	$8.619 \cdot 10^{-21}$	$8.619 \cdot 10^{-21}$	0	$3.82 \cdot 10^{-38}$	$3.82 \cdot 10^{-38}$	0
cH1111	-0.00166	-0.00166	0	$5.031 \cdot 10^{-5}$	$5.031 \cdot 10^{-5}$	0
cH1122	-0.001713	-0.001713	0	$5.193 \cdot 10^{-5}$	$5.193 \cdot 10^{-5}$	0
cH1311	$1.652 \cdot 10^{-19}$	$1.652 \cdot 10^{-19}$	0	$9.404 \cdot 10^{-37}$	$9.404 \cdot 10^{-37}$	0
cH1322	$9.043 \cdot 10^{-20}$	$9.043 \cdot 10^{-20}$	0	$5.29 \cdot 10^{-37}$	$5.29 \cdot 10^{-37}$	0
c111122	0.08373	0.08373	0	0.3027	0.3027	0
c111221	0.2076	0.2076	0	0.7535	0.7535	0
sm	0	0	0	0.0002812	0.0002812	0

### 1.50 $b\bar{b} \rightarrow \gamma\gamma$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-7.738 \cdot 10^{-7}$	$-7.738 \cdot 10^{-7}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0
cHBtil	$-1.199 \cdot 10^{-23}$	$-1.199 \cdot 10^{-23}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0
cHW	$-1.319 \cdot 10^{-7}$	$-1.319 \cdot 10^{-7}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
cHWB	$2.879 \cdot 10^{-7}$	$2.879 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
cHWBtil	$-1.233 \cdot 10^{-23}$	$-1.233 \cdot 10^{-23}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
cHWtil	$-2.443 \cdot 10^{-24}$	$-2.443 \cdot 10^{-24}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
cbBIm	$1.147 \cdot 10^{-21}$	$1.147 \cdot 10^{-21}$	$-6.975 \cdot 10^{-7}$	0.002028	0.002028	0

cbBRe	$9.541 \cdot 10^{-6}$	$9.541 \cdot 10^{-6}$	0	0.002028	0.002028	0
cbWIm	$-3.975 \cdot 10^{-22}$	$-3.975 \cdot 10^{-22}$	0	0.000618	0.000618	0
cbWRe	$-4.304 \cdot 10^{-6}$	$-4.304 \cdot 10^{-6}$	0	0.0006181	0.0006181	0
sm	0	0	0	0.0004918	0.0004918	0

### 1.51 $b\bar{b} \rightarrow \mu^+\mu^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-3.717 \cdot 10^{-5}$	$-3.717 \cdot 10^{-5}$	0	$1.107 \cdot 10^{-6}$	$1.107 \cdot 10^{-6}$	0
cHQ1	$6.152 \cdot 10^{-5}$	$6.152 \cdot 10^{-5}$	0	$2.939 \cdot 10^{-6}$	$2.939 \cdot 10^{-6}$	0
cHQ3	$4.928 \cdot 10^{-5}$	$4.928 \cdot 10^{-5}$	0	$3.329 \cdot 10^{-6}$	$3.329 \cdot 10^{-6}$	0
cHWB	-0.000222	-0.000222	0	$2.734 \cdot 10^{-5}$	$2.734 \cdot 10^{-5}$	0
cHbq	$1.931 \cdot 10^{-6}$	$1.931 \cdot 10^{-6}$	0	$3.148 \cdot 10^{-6}$	$3.148 \cdot 10^{-6}$	0
cHe22	$-2.739 \cdot 10^{-5}$	$-2.739 \cdot 10^{-5}$	0	$1.631 \cdot 10^{-6}$	$1.631 \cdot 10^{-6}$	0
cHl122	0.0003059	0.0003059	0	$1.144 \cdot 10^{-5}$	$1.144 \cdot 10^{-5}$	0
cHl311	$1.338 \cdot 10^{-5}$	$1.338 \cdot 10^{-5}$	0	$2.744 \cdot 10^{-7}$	$2.744 \cdot 10^{-7}$	0
cHl322	$-2.336 \cdot 10^{-5}$	$-2.336 \cdot 10^{-5}$	0	$5.451 \cdot 10^{-7}$	$5.451 \cdot 10^{-7}$	0
cQe22	-0.01149	-0.01149	0	0.2633	0.2633	0
cQl122	0.0332	0.0332	0	0.1748	0.1748	0
cQl322	0.02416	0.02416	0	0.1272	0.1272	0
cbBIm	$-4.296 \cdot 10^{-20}$	$-4.296 \cdot 10^{-20}$	0	0.002266	0.002266	0
cbBRe	$1.834 \cdot 10^{-5}$	$1.834 \cdot 10^{-5}$	0	0.003027	0.003027	0
cbHIm	$-3.478 \cdot 10^{-27}$	$-3.478 \cdot 10^{-27}$	0	$1.164 \cdot 10^{-10}$	$1.164 \cdot 10^{-10}$	0
cbHRe	$-9.153 \cdot 10^{-11}$	$-9.153 \cdot 10^{-11}$	0	$1.164 \cdot 10^{-10}$	$1.164 \cdot 10^{-10}$	0
cbWIm	$-5.281 \cdot 10^{-21}$	$-5.281 \cdot 10^{-21}$	0	0.00174	0.00174	0
cbWRe	$-1.865 \cdot 10^{-5}$	$-1.865 \cdot 10^{-5}$	0	0.0008476	0.0008476	0
cbe22	0.01089	0.01089	0	0.1272	0.1272	0
cb122	0.008151	0.008151	0	0.1917	0.1917	0

ceBIm22	$-1.163 \cdot 10^{-24}$	$-1.163 \cdot 10^{-24}$	0	0.0003437	0.0003437	0
ceBRe22	$6.01 \cdot 10^{-9}$	$6.01 \cdot 10^{-9}$	0	0.0002083	0.0002083	0
ceHIm22	$4.795 \cdot 10^{-26}$	$4.795 \cdot 10^{-26}$	0	$1.822 \cdot 10^{-7}$	$1.822 \cdot 10^{-7}$	0
ceHRe22	$-3.621 \cdot 10^{-9}$	$-3.621 \cdot 10^{-9}$	0	$1.822 \cdot 10^{-7}$	$1.822 \cdot 10^{-7}$	0
ceWIm22	$1.241 \cdot 10^{-23}$	$1.241 \cdot 10^{-23}$	0	0.0004113	0.0004113	0
ceWRe22	$-4.315 \cdot 10^{-7}$	$-4.315 \cdot 10^{-7}$	0	0.002097	0.002097	0
clebQIm22	$-9.393 \cdot 10^{-23}$	$-9.393 \cdot 10^{-23}$	0	0.1667	0.1667	0
clebQRe22	$-4.892 \cdot 10^{-6}$	$-4.892 \cdot 10^{-6}$	0	0.1667	0.1667	0
c111221	$-2.961 \cdot 10^{-6}$	$-2.961 \cdot 10^{-6}$	0	$1.38 \cdot 10^{-7}$	$1.38 \cdot 10^{-7}$	0
sm	0	0	0	0.00101	0.00101	0

### 1.52 $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0001963	-0.0001963	0	$3.77 \cdot 10^{-6}$	$3.77 \cdot 10^{-6}$	0
cHQ1	0.00017	0.00017	0	$6.105 \cdot 10^{-6}$	$6.105 \cdot 10^{-6}$	0
cHQ3	0.0001825	0.0001825	0	$6.552 \cdot 10^{-6}$	$6.552 \cdot 10^{-6}$	0
cHWB	-0.0003082	-0.0003082	0	$5.882 \cdot 10^{-6}$	$5.882 \cdot 10^{-6}$	0
cHbq	$-6.18 \cdot 10^{-5}$	$-6.18 \cdot 10^{-5}$	0	$1.203 \cdot 10^{-5}$	$1.203 \cdot 10^{-5}$	0
cH1111	-0.0005437	-0.0005437	0	$1.648 \cdot 10^{-5}$	$1.648 \cdot 10^{-5}$	0
cH1311	$-6.892 \cdot 10^{-5}$	$-6.892 \cdot 10^{-5}$	0	$6.806 \cdot 10^{-7}$	$6.806 \cdot 10^{-7}$	0
cH1322	-0.0002607	-0.0002607	0	$1.006 \cdot 10^{-5}$	$1.006 \cdot 10^{-5}$	0
cQ1111	-0.06145	-0.06145	0	0.2631	0.2631	0
cQ1311	0.038	0.038	0	0.1627	0.1627	0
cbBIm	$1.627 \cdot 10^{-20}$	$1.627 \cdot 10^{-20}$	0	0.0006578	0.0006578	0
cbBRe	$-1.718 \cdot 10^{-5}$	$-1.718 \cdot 10^{-5}$	0	0.0006581	0.0006581	0
cbWIm	$5.082 \cdot 10^{-20}$	$5.082 \cdot 10^{-20}$	0	0.001769	0.001769	0
cbWRe	$-6.618 \cdot 10^{-5}$	$-6.618 \cdot 10^{-5}$	0	0.0007087	0.0007087	0



cb111	0.002151	0.002151	0	0.04996	0.04996	0
c111221	0.0002886	0.0002886	0	$5.535 \cdot 10^{-6}$	$5.535 \cdot 10^{-6}$	0
sm	0	0	0	0.002911	0.002911	0

### 1.53 $b\bar{b} \rightarrow b\bar{b}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$5.133 \cdot 10^{-5}$	$5.133 \cdot 10^{-5}$	0	$3.397 \cdot 10^{-8}$	$3.397 \cdot 10^{-8}$	0
cHQ1	-0.03404	-0.03404	0	0.0005714	0.0005714	0
cHQ3	-0.03017	-0.03017	0	0.0004727	0.0004727	0
cHWB	0.03449	0.03449	0	0.001667	0.001667	0
cHbq	0.0009816	0.0009816	0	0.0002839	0.0002839	0
cH1311	0.048	0.048	0	0.001224	0.001224	0
cH1322	0.03467	0.03467	0	0.0005638	0.0005638	0
cQQ1	-10.52	-10.52	0	7.316	7.316	0
cQQ8	-0.2961	-0.2961	0	0.3125	0.3125	$-3.2 \cdot 10^{-8}$
cQb1	0.04218	0.04218	0	2.583	2.583	0
cQb8	-2.032	-2.032	0	0.5758	0.5758	0
cbBIm	$-4.989 \cdot 10^{-19}$	$-4.824 \cdot 10^{-19}$	0.03311	0.01868	0.01868	0
cbBRe	-0.0002315	-0.0002315	0	0.02076	0.02076	0
cbGIm	$1.419 \cdot 10^{-18}$	$1.347 \cdot 10^{-18}$	0.05096	0.2536	0.2536	0
cbGRe	-0.01546	-0.01546	0	0.003027	0.003027	0
cbHIm	$8.901 \cdot 10^{-21}$	$8.876 \cdot 10^{-21}$	0.002849	$2.826 \cdot 10^{-6}$	$2.826 \cdot 10^{-6}$	0
cbHRe	0.01047	0.01047	0	$4.661 \cdot 10^{-6}$	$4.661 \cdot 10^{-6}$	0
cbWIm	$-1.025 \cdot 10^{-17}$	$-1.013 \cdot 10^{-17}$	0.01095	0.5447	0.5447	0
cbWRe	-0.0007479	-0.0007479	0	0.06995	0.06995	0
cbb	0.0001804	0.0001804	0	0.0005271	0.0005271	0
c111221	-0.003804	-0.003804	0	$1.328 \cdot 10^{-5}$	$1.328 \cdot 10^{-5}$	0
sm	0	0	0	38.59	38.59	0

# 1.54 $b\bar{b} \rightarrow d\bar{d}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$-2.134 \cdot 10^{-5}$	$-2.134 \cdot 10^{-5}$	0	$5.039 \cdot 10^{-7}$	$5.039 \cdot 10^{-7}$	0
cHQ1	0.0008046	0.0008046	0	$2.609 \cdot 10^{-5}$	$2.609 \cdot 10^{-5}$	0
cHQ3	0.001423	0.001423	0	$4.599 \cdot 10^{-5}$	$4.599 \cdot 10^{-5}$	0
cHWB	$-0.0004972$	$-0.0004972$	0	$2.215 \cdot 10^{-5}$	$2.215 \cdot 10^{-5}$	0
cHbq	$-3.62 \cdot 10^{-5}$	$-3.62 \cdot 10^{-5}$	0	$1.667 \cdot 10^{-6}$	$1.667 \cdot 10^{-6}$	0
cHd	$-5.351 \cdot 10^{-5}$	$-5.351 \cdot 10^{-5}$	0	$2.455 \cdot 10^{-5}$	$2.455 \cdot 10^{-5}$	0
cHj1	0.001423	0.001423	0	$4.599 \cdot 10^{-5}$	$4.599 \cdot 10^{-5}$	0
cHj3	0.001261	0.001261	0	$4.077 \cdot 10^{-5}$	$4.077 \cdot 10^{-5}$	0
cH1311	$-0.0003365$	$-0.0003365$	0	$1.426 \cdot 10^{-5}$	$1.426 \cdot 10^{-5}$	0
cH1322	$-4.665 \cdot 10^{-5}$	$-4.665 \cdot 10^{-5}$	0	$2.179 \cdot 10^{-6}$	$2.179 \cdot 10^{-6}$	0
cQd1	$-0.00994$	$-0.00994$	0	0.6836	0.6836	0
cQd8	0.4654	0.4654	0	0.1571	0.1571	0
cQj11	0.1683	0.1683	0	0.7683	0.7683	0
cQj18	0.1619	0.1619	0	0.05464	0.05464	0
cQj31	0.201	0.201	0	0.9177	0.9177	0
cQj38	0.5355	0.5355	0	0.1807	0.1807	0
cbBIm	$1.722 \cdot 10^{-20}$	$1.722 \cdot 10^{-20}$	$-1.069 \cdot 10^{-5}$	0.0005167	0.0005167	0
cbBRe	$-2.151 \cdot 10^{-5}$	$-2.151 \cdot 10^{-5}$	0	0.000881	0.000881	0
cbGIm	$-1.034 \cdot 10^{-25}$	$-1.151 \cdot 10^{-26}$	0.8887	0.01381	0.01381	0
cbGRe	$-0.004666$	$-0.004666$	0	0.03907	0.03907	0
cbHIm	$-1.945 \cdot 10^{-29}$	$-1.676 \cdot 10^{-29}$	0.138	$6.823 \cdot 10^{-13}$	$6.823 \cdot 10^{-13}$	0
cbHRe	$-5.397 \cdot 10^{-13}$	$-5.397 \cdot 10^{-13}$	0	$6.822 \cdot 10^{-13}$	$6.822 \cdot 10^{-13}$	0
cbWIm	$7.801 \cdot 10^{-20}$	$7.801 \cdot 10^{-20}$	0	0.002798	0.002798	0
cbWRe	$-5.33 \cdot 10^{-5}$	$-5.33 \cdot 10^{-5}$	0	0.005454	0.005454	0
cbd1	0.02124	0.02124	0	0.7445	0.7445	0
cbd8	0.0602	0.0602	0	0.02031	0.02031	0

cbj1	-0.01043	-0.01043	0	0.7174	0.7174	0
cbj8	0.1238	0.1238	0	0.04178	0.04178	0
cdBIm	$1.863 \cdot 10^{-29}$	$1.145 \cdot 10^{-28}$	-5.143	$7.853 \cdot 10^{-13}$	$7.853 \cdot 10^{-13}$	$-1.172 \cdot 10^{-6}$
cdBRe	$-5.28 \cdot 10^{-13}$	$-5.28 \cdot 10^{-13}$	$-5.682 \cdot 10^{-7}$	$7.686 \cdot 10^{-13}$	$7.686 \cdot 10^{-13}$	$-1.171 \cdot 10^{-6}$
cdGIm	$-4.438 \cdot 10^{-27}$	$-4.433 \cdot 10^{-27}$	0.001027	$2.811 \cdot 10^{-11}$	$2.811 \cdot 10^{-11}$	$-1.138 \cdot 10^{-6}$
cdGRe	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	$-6.436 \cdot 10^{-7}$	$2.318 \cdot 10^{-11}$	$2.318 \cdot 10^{-11}$	$-1.165 \cdot 10^{-6}$
cdHIm	$-9.908 \cdot 10^{-31}$	$1.513 \cdot 10^{-30}$	2.527	$3.933 \cdot 10^{-16}$	$3.933 \cdot 10^{-16}$	$-1.17 \cdot 10^{-6}$
cdHRe	$-1.299 \cdot 10^{-14}$	$-1.299 \cdot 10^{-14}$	$-5.39 \cdot 10^{-7}$	$3.933 \cdot 10^{-16}$	$3.933 \cdot 10^{-16}$	$-1.17 \cdot 10^{-6}$
cdWIm	$-1.266 \cdot 10^{-28}$	$-1.711 \cdot 10^{-28}$	-0.3511	$1.647 \cdot 10^{-12}$	$1.647 \cdot 10^{-12}$	$-1.153 \cdot 10^{-6}$
cdWRe	$-3.399 \cdot 10^{-12}$	$-3.399 \cdot 10^{-12}$	$-5.591 \cdot 10^{-7}$	$4.551 \cdot 10^{-12}$	$4.551 \cdot 10^{-12}$	$-1.164 \cdot 10^{-6}$
cjQbd1Im	$-8.89 \cdot 10^{-29}$	$9.063 \cdot 10^{-29}$	2.019	$1.439 \cdot 10^{-9}$	$1.439 \cdot 10^{-9}$	$-1.181 \cdot 10^{-6}$
cjQbd1Re	$1.284 \cdot 10^{-11}$	$1.284 \cdot 10^{-11}$	$-5.453 \cdot 10^{-7}$	$1.439 \cdot 10^{-9}$	$1.439 \cdot 10^{-9}$	$-1.181 \cdot 10^{-6}$
cjQbd8Im	$6.917 \cdot 10^{-28}$	$-1.054 \cdot 10^{-27}$	2.523	$3.198 \cdot 10^{-10}$	$3.198 \cdot 10^{-10}$	$-1.157 \cdot 10^{-6}$
cjQbd8Re	$1.564 \cdot 10^{-11}$	$1.564 \cdot 10^{-11}$	$-5.755 \cdot 10^{-7}$	$3.198 \cdot 10^{-10}$	$3.198 \cdot 10^{-10}$	$-1.157 \cdot 10^{-6}$
cl11221	$8.972 \cdot 10^{-5}$	$8.972 \cdot 10^{-5}$	0	$1.925 \cdot 10^{-6}$	$1.925 \cdot 10^{-6}$	0
sm	0	0	0	0.4941	0.4941	0

### 1.55 $b\bar{b} \rightarrow t\bar{t}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.01265	-0.01265	0	0.0008561	0.0008561	0
cHQ1	-0.0007922	-0.0007922	0	$7.987 \cdot 10^{-6}$	$7.987 \cdot 10^{-6}$	0
cHQ3	-0.01333	-0.01333	0	0.003821	0.003821	0
cHWB	0.007954	0.007954	0	0.00322	0.00322	0
cHbq	-0.0001188	-0.0001188	0	$5.42 \cdot 10^{-6}$	$5.42 \cdot 10^{-6}$	0
cH1311	-0.03876	-0.03876	0	0.004421	0.004421	0
cH1322	-0.128	-0.128	0	0.01027	0.01027	0
cHt	-0.001287	-0.001287	0	$1.456 \cdot 10^{-5}$	$1.456 \cdot 10^{-5}$	0

cHtbIm	$3.375 \cdot 10^{-20}$	$1.855 \cdot 10^{-20}$	0.4504	0.0006015	0.0006015	0
cHtbRe	0.00165	0.00165	0	0.01046	0.01046	0
cQQ1	-0.0201	-0.0201	0	0.005547	0.005547	0
cQQ8	0.09824	0.09824	$1.018 \cdot 10^{-8}$	0.1353	0.1353	0
cQb1	-0.001937	-0.001937	0	0.01399	0.01399	0
cQb8	0.5205	0.5205	0	0.1691	0.1691	0
cQt1	-0.1364	-0.1364	0	0.117	0.117	0
cQt8	-0.08439	-0.08439	0	0.01584	0.01584	0
cQtQb1Im	$-3.374 \cdot 10^{-19}$	$-1.1 \cdot 10^{-18}$	-2.261	0.5529	0.5529	0
cQtQb1Re	-0.006609	-0.006609	0	0.6905	0.6905	0
cQtQb8Im	$-3.8 \cdot 10^{-19}$	$-3.8 \cdot 10^{-19}$	0	0.09435	0.09435	0
cQtQb8Re	0.001561	0.001561	0	0.1232	0.1232	0
cbBIm	$-5.185 \cdot 10^{-20}$	$-5.732 \cdot 10^{-20}$	-0.1056	0.001832	0.001832	0
cbBRe	0.0004802	0.0004802	0	0.0005086	0.0005086	0
cbGIm	$7.421 \cdot 10^{-20}$	$7.421 \cdot 10^{-20}$	0	0.01665	0.01665	0
cbGRe	-0.003092	-0.003092	0	0.03397	0.03397	0
cbHIm	$-1.883 \cdot 10^{-20}$	$-1.883 \cdot 10^{-20}$	0	0.0008223	0.0008223	0
cbHRe	-0.0004241	-0.0004241	0	0.0008222	0.0008222	0
cbWIm	$-3.715 \cdot 10^{-18}$	$-3.724 \cdot 10^{-18}$	-0.002305	0.2789	0.2789	0
cbWRe	-0.002799	-0.002799	0	0.01432	0.01432	0
c111221	-0.004066	-0.004066	0	0.000498	0.000498	0
ctBIm	$1.906 \cdot 10^{-19}$	$1.334 \cdot 10^{-19}$	0.3002	0.000597	0.000597	0
ctBRe	0.003611	0.003611	0	0.00122	0.00122	0
ctGIm	$-5.027 \cdot 10^{-20}$	$-5.027 \cdot 10^{-20}$	0	0.01189	0.01189	0
ctGRe	-0.08544	-0.08544	0	0.04374	0.04374	0
ctHIm	$-2.904 \cdot 10^{-22}$	$-2.904 \cdot 10^{-22}$	0	$5.466 \cdot 10^{-7}$	$5.466 \cdot 10^{-7}$	0
ctHRe	$-9.991 \cdot 10^{-6}$	$-9.991 \cdot 10^{-6}$	0	$4.813 \cdot 10^{-7}$	$4.813 \cdot 10^{-7}$	0
ctWIm	$-1.556 \cdot 10^{-16}$	$-1.556 \cdot 10^{-16}$	0	0.09368	0.09368	0
ctWRe	0.03302	0.03302	0	0.1181	0.1181	0

ctb1	-0.02512	-0.02512	0	0.433	0.433	0
ctb8	0.1701	0.1701	0	0.05079	0.05079	0
sm	0	0	0	0.4148	0.4148	0

### 1.56 $b\bar{b} \rightarrow u\bar{u}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0001085	-0.0001085	0	$2.64 \cdot 10^{-6}$	$2.64 \cdot 10^{-6}$	0
cHQ1	0.0003955	0.0003955	0	$1.204 \cdot 10^{-5}$	$1.204 \cdot 10^{-5}$	0
cHQ3	$9.069 \cdot 10^{-5}$	$9.069 \cdot 10^{-5}$	0	$5.67 \cdot 10^{-6}$	$5.67 \cdot 10^{-6}$	0
cHWB	$8.182 \cdot 10^{-5}$	$8.182 \cdot 10^{-5}$	0	$3.235 \cdot 10^{-5}$	$3.235 \cdot 10^{-5}$	0
cHbq	$3.586 \cdot 10^{-5}$	$3.586 \cdot 10^{-5}$	0	$1.911 \cdot 10^{-5}$	$1.911 \cdot 10^{-5}$	0
cHj1	$-3.712 \cdot 10^{-5}$	$-3.712 \cdot 10^{-5}$	0	$2.839 \cdot 10^{-6}$	$2.839 \cdot 10^{-6}$	0
cHj3	$3.862 \cdot 10^{-5}$	$3.862 \cdot 10^{-5}$	0	$2.881 \cdot 10^{-6}$	$2.881 \cdot 10^{-6}$	0
cHl311	-0.0004637	-0.0004637	0	$2.202 \cdot 10^{-5}$	$2.202 \cdot 10^{-5}$	0
cHl322	-0.001373	-0.001373	0	$6.46 \cdot 10^{-5}$	$6.46 \cdot 10^{-5}$	0
cHu	0.0001386	0.0001386	0	$3.317 \cdot 10^{-5}$	$3.317 \cdot 10^{-5}$	0
cQj11	-0.06625	-0.06625	0	0.324	0.324	0
cQj18	0.06139	0.06139	0	0.02071	0.02071	0
cQj31	0.00696	0.00696	0	0.03404	0.03404	0
cQj38	-0.02307	-0.02307	0	0.007783	0.007783	0
cQu1	0.01921	0.01921	0	0.6608	0.6608	0
cQu8	0.3178	0.3178	0	0.1072	0.1072	0
cQujb1Im	$-3.427 \cdot 10^{-29}$	$-8.356 \cdot 10^{-30}$	0.7562	$3.731 \cdot 10^{-11}$	$3.731 \cdot 10^{-11}$	$-1.447 \cdot 10^{-6}$
cQujb1Re	$2.547 \cdot 10^{-13}$	$2.547 \cdot 10^{-13}$	$-7.067 \cdot 10^{-7}$	$8.144 \cdot 10^{-14}$	$8.144 \cdot 10^{-14}$	$-1.449 \cdot 10^{-6}$
cQujb8Im	$-2.312 \cdot 10^{-29}$	$-6.074 \cdot 10^{-30}$	0.7373	$5.084 \cdot 10^{-13}$	$5.084 \cdot 10^{-13}$	$-1.436 \cdot 10^{-6}$
cQujb8Re	$-3.548 \cdot 10^{-13}$	$-3.548 \cdot 10^{-13}$	$-7.329 \cdot 10^{-7}$	$5.084 \cdot 10^{-13}$	$5.084 \cdot 10^{-13}$	$-1.436 \cdot 10^{-6}$
cbBIm	$-1.087 \cdot 10^{-20}$	$-1.086 \cdot 10^{-20}$	0.0002707	0.0036	0.0036	0

cbBRe	$3.47 \cdot 10^{-5}$	$3.47 \cdot 10^{-5}$	0	0.003606	0.003606	0
cbGIm	$2.298 \cdot 10^{-26}$	$2.298 \cdot 10^{-26}$	0	0.005023	0.005023	0
cbGRe	-0.004666	-0.004666	0	0.02279	0.02279	0
cbHIm	$1.649 \cdot 10^{-29}$	$9.631 \cdot 10^{-30}$	0.4159	$1.46 \cdot 10^{-13}$	$1.46 \cdot 10^{-13}$	0
cbHRe	$-1.156 \cdot 10^{-13}$	$-1.156 \cdot 10^{-13}$	0	$1.46 \cdot 10^{-13}$	$1.46 \cdot 10^{-13}$	0
cbWIm	$-5.51 \cdot 10^{-21}$	$-5.513 \cdot 10^{-21}$	-0.0005338	0.006323	0.006323	0
cbWRe	$-7.017 \cdot 10^{-5}$	$-7.017 \cdot 10^{-5}$	0	0.005561	0.005561	0
cbj1	-0.005996	-0.005996	0	0.4283	0.4283	0
cbj8	0.4967	0.4967	0	0.1676	0.1676	0
cbu1	-0.006814	-0.006814	0	0.1194	0.1194	0
cbu8	0.02307	0.02307	0	0.007783	0.007783	0
cjuQb1Im	$-6.754 \cdot 10^{-29}$	$-5.632 \cdot 10^{-29}$	0.1661	$7.696 \cdot 10^{-11}$	$7.696 \cdot 10^{-11}$	$-1.442 \cdot 10^{-6}$
cjuQb1Re	$-3.725 \cdot 10^{-12}$	$-3.725 \cdot 10^{-12}$	$-7.249 \cdot 10^{-7}$	$7.696 \cdot 10^{-11}$	$7.696 \cdot 10^{-11}$	$-1.442 \cdot 10^{-6}$
cjuQb8Im	$7.934 \cdot 10^{-32}$	$2.456 \cdot 10^{-29}$	-308.5	$1.71 \cdot 10^{-11}$	$1.71 \cdot 10^{-11}$	$-1.403 \cdot 10^{-6}$
cjuQb8Re	$5.471 \cdot 10^{-14}$	$5.471 \cdot 10^{-14}$	$-7.311 \cdot 10^{-7}$	$1.71 \cdot 10^{-11}$	$1.71 \cdot 10^{-11}$	$-1.403 \cdot 10^{-6}$
cll1221	$8.909 \cdot 10^{-5}$	$8.909 \cdot 10^{-5}$	0	$2.193 \cdot 10^{-6}$	$2.193 \cdot 10^{-6}$	0
cuBIm	$-5.275 \cdot 10^{-30}$	$2.934 \cdot 10^{-30}$	1.556	$1.648 \cdot 10^{-13}$	$1.648 \cdot 10^{-13}$	$-1.456 \cdot 10^{-6}$
cuBRe	$3.221 \cdot 10^{-14}$	$3.221 \cdot 10^{-14}$	$-7.141 \cdot 10^{-7}$	$1.648 \cdot 10^{-13}$	$1.648 \cdot 10^{-13}$	$-1.456 \cdot 10^{-6}$
cuGIm	$-8.608 \cdot 10^{-28}$	$-1.067 \cdot 10^{-27}$	-0.2395	$3.739 \cdot 10^{-12}$	$3.739 \cdot 10^{-12}$	$-1.444 \cdot 10^{-6}$
cuGRe	$-2.992 \cdot 10^{-11}$	$-2.992 \cdot 10^{-11}$	$-7.353 \cdot 10^{-7}$	$3.739 \cdot 10^{-12}$	$3.739 \cdot 10^{-12}$	$-1.444 \cdot 10^{-6}$
cuHIm	$3.655 \cdot 10^{-32}$	$-1.207 \cdot 10^{-32}$	1.33	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	$-1.45 \cdot 10^{-6}$
cuHRe	$-2.759 \cdot 10^{-15}$	$-2.759 \cdot 10^{-15}$	$-7.25 \cdot 10^{-7}$	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	$-1.45 \cdot 10^{-6}$
cuWIm	$-3.429 \cdot 10^{-29}$	$-1.438 \cdot 10^{-29}$	0.5806	$9.763 \cdot 10^{-13}$	$9.763 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
cuWRe	$-9.008 \cdot 10^{-14}$	$-9.008 \cdot 10^{-14}$	$-7.216 \cdot 10^{-7}$	$6.054 \cdot 10^{-13}$	$6.054 \cdot 10^{-13}$	$-1.437 \cdot 10^{-6}$
sm	0	0	0	0.8599	0.8599	0

**1.57**  $b\bar{t} \rightarrow e^- \bar{\nu}_e$

interference

square

	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0006751	-0.0006751	0	$1.472 \cdot 10^{-5}$	$1.472 \cdot 10^{-5}$	0
cHQ3	0.0006506	0.0006506	0	$1.972 \cdot 10^{-5}$	$1.972 \cdot 10^{-5}$	0
cHWB	-0.002745	-0.002745	0	0.0001321	0.0001321	0
cH1311	$-2.472 \cdot 10^{-5}$	$-2.472 \cdot 10^{-5}$	0	$3.284 \cdot 10^{-7}$	$3.284 \cdot 10^{-7}$	0
cH1322	-0.001068	-0.001068	0	$4.658 \cdot 10^{-5}$	$4.658 \cdot 10^{-5}$	0
cHtbIm	$-3.59 \cdot 10^{-22}$	$-3.59 \cdot 10^{-22}$	0	$1.915 \cdot 10^{-6}$	$1.915 \cdot 10^{-6}$	0
cHtbRe	$-6.534 \cdot 10^{-7}$	$-6.534 \cdot 10^{-7}$	0	$1.689 \cdot 10^{-6}$	$1.689 \cdot 10^{-6}$	0
cQ1311	0.008795	0.008795	0	0.04156	0.04156	0
cbWIm	$6.258 \cdot 10^{-21}$	$6.258 \cdot 10^{-21}$	0	0.00028	0.00028	0
cbWRe	$-5.727 \cdot 10^{-5}$	$-5.727 \cdot 10^{-5}$	0	0.004342	0.004342	0
ceWIm11	$8.527 \cdot 10^{-23}$	$8.527 \cdot 10^{-23}$	0	0.003007	0.003007	0
ceWRe11	$-1.037 \cdot 10^{-8}$	$-1.037 \cdot 10^{-8}$	0	0.004154	0.004154	0
cleQt1Im11	$8.117 \cdot 10^{-11}$	$8.117 \cdot 10^{-11}$	0	0.08333	0.08333	0
cleQt1Re11	$4.824 \cdot 10^{-7}$	$4.824 \cdot 10^{-7}$	0	0.08333	0.08333	0
cleQt3Im11	$2.217 \cdot 10^{-10}$	$2.217 \cdot 10^{-10}$	0	0.6221	0.6221	0
cleQt3Re11	$-5.711 \cdot 10^{-7}$	$-5.711 \cdot 10^{-7}$	0	0.1702	0.1702	0
clebQIm11	$-2.028 \cdot 10^{-12}$	$-2.028 \cdot 10^{-12}$	0	0.08333	0.08333	0
clebQRe11	$-1.211 \cdot 10^{-8}$	$-1.211 \cdot 10^{-8}$	0	0.08333	0.08333	0
c111221	0.0002279	0.0002279	0	$4.969 \cdot 10^{-6}$	$4.969 \cdot 10^{-6}$	0
ctWIm	$-9.261 \cdot 10^{-19}$	$-9.261 \cdot 10^{-19}$	0	0.004144	0.004144	0
ctWRe	-0.003966	-0.003966	0	0.003762	0.003762	0
sm	0	0	0	0.007778	0.007778	0

### 1.58 $c\bar{c} \rightarrow \mu^+ \mu^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-1.952 \cdot 10^{-5}$	$-1.952 \cdot 10^{-5}$	0	$7.929 \cdot 10^{-7}$	$7.929 \cdot 10^{-7}$	0

cHWB	-0.0002054	-0.0002054	0	$2.892 \cdot 10^{-5}$	$2.892 \cdot 10^{-5}$	0
cHe22	$6.098 \cdot 10^{-5}$	$6.098 \cdot 10^{-5}$	0	$8.699 \cdot 10^{-6}$	$8.699 \cdot 10^{-6}$	0
cHj1	-0.0001522	-0.0001522	0	$3.575 \cdot 10^{-6}$	$3.575 \cdot 10^{-6}$	0
cHj3	$-3.866 \cdot 10^{-5}$	$-3.866 \cdot 10^{-5}$	0	$4.107 \cdot 10^{-6}$	$4.107 \cdot 10^{-6}$	0
cHl122	$-2.257 \cdot 10^{-5}$	$-2.257 \cdot 10^{-5}$	0	$1.924 \cdot 10^{-6}$	$1.924 \cdot 10^{-6}$	0
cHl311	-0.0004995	-0.0004995	0	$2.527 \cdot 10^{-5}$	$2.527 \cdot 10^{-5}$	0
cHl322	$-2.609 \cdot 10^{-5}$	$-2.609 \cdot 10^{-5}$	0	$7.386 \cdot 10^{-7}$	$7.386 \cdot 10^{-7}$	0
cHu	$-9.674 \cdot 10^{-5}$	$-9.674 \cdot 10^{-5}$	0	$5.298 \cdot 10^{-6}$	$5.298 \cdot 10^{-6}$	0
ceBIm22	$9.18 \cdot 10^{-26}$	$9.18 \cdot 10^{-26}$	0	0.000413	0.000413	0
ceBRe22	$7.327 \cdot 10^{-7}$	$7.327 \cdot 10^{-7}$	0	0.0008478	0.0008478	0
ceHIm22	$-6.171 \cdot 10^{-29}$	$-6.171 \cdot 10^{-29}$	0	$1.682 \cdot 10^{-8}$	$1.682 \cdot 10^{-8}$	0
ceHRe22	$-3.32 \cdot 10^{-10}$	$-3.32 \cdot 10^{-10}$	0	$1.682 \cdot 10^{-8}$	$1.682 \cdot 10^{-8}$	0
ceWIm22	$-2.746 \cdot 10^{-23}$	$-2.746 \cdot 10^{-23}$	0	0.0004718	0.0004718	0
ceWRe22	$-1.157 \cdot 10^{-6}$	$-1.157 \cdot 10^{-6}$	0	0.002134	0.002134	0
ceu22	-0.02604	-0.02604	0	0.1521	0.1521	0
cje22	-0.009604	-0.009604	0	0.2288	0.2288	0
cleju1Im22	$-1.862 \cdot 10^{-25}$	$-7.377 \cdot 10^{-25}$	$-2.961$	$8.868 \cdot 10^{-6}$	$8.868 \cdot 10^{-6}$	$2.819 \cdot 10^{-7}$
cleju1Re22	$1.09 \cdot 10^{-8}$	$1.09 \cdot 10^{-8}$	$1.835 \cdot 10^{-7}$	$8.868 \cdot 10^{-6}$	$8.868 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$
cleju3Im22	$2.6 \cdot 10^{-24}$	$1.843 \cdot 10^{-24}$	$0.2912$	$2.862 \cdot 10^{-5}$	$2.862 \cdot 10^{-5}$	$2.795 \cdot 10^{-7}$
cleju3Re22	$-4.015 \cdot 10^{-9}$	$-4.015 \cdot 10^{-9}$	$1.494 \cdot 10^{-7}$	$1.957 \cdot 10^{-6}$	$1.957 \cdot 10^{-6}$	$3.065 \cdot 10^{-7}$
clj122	-0.02419	-0.02419	0	0.1041	0.1041	0
clj322	0.02419	0.02419	0	0.1041	0.1041	0
cll1221	$-2.976 \cdot 10^{-7}$	$-2.976 \cdot 10^{-7}$	0	$3.975 \cdot 10^{-7}$	$3.975 \cdot 10^{-7}$	0
clu22	-0.01713	-0.01713	0	0.2015	0.2015	0
cuBIm	$1.712 \cdot 10^{-22}$	$1.712 \cdot 10^{-22}$	0	$7.116 \cdot 10^{-8}$	$7.116 \cdot 10^{-8}$	$2.811 \cdot 10^{-7}$
cuBRe	$-8.32 \cdot 10^{-8}$	$-8.32 \cdot 10^{-8}$	$1.322 \cdot 10^{-7}$	$7.116 \cdot 10^{-8}$	$7.116 \cdot 10^{-8}$	$2.811 \cdot 10^{-7}$
cuHIm	$-4.295 \cdot 10^{-30}$	$5.478 \cdot 10^{-30}$	$2.275$	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	$2.906 \cdot 10^{-7}$
cuHRe	$-2.062 \cdot 10^{-13}$	$-2.062 \cdot 10^{-13}$	$1.455 \cdot 10^{-7}$	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	$2.744 \cdot 10^{-7}$
cuWIm	$7.586 \cdot 10^{-23}$	$7.586 \cdot 10^{-23}$	$2.36 \cdot 10^{-6}$	$6.483 \cdot 10^{-8}$	$6.483 \cdot 10^{-8}$	$2.777 \cdot 10^{-7}$



cuWRe	$-7.11 \cdot 10^{-8}$	$-7.11 \cdot 10^{-8}$	$1.406 \cdot 10^{-7}$	$4.581 \cdot 10^{-8}$	$4.581 \cdot 10^{-8}$	$2.62 \cdot 10^{-7}$
sm	0	0	0	0.006442	0.006442	0

### 1.59 $c\bar{s} \rightarrow \tau^+ \nu_\tau$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.000778	-0.000778	0	$1.696 \cdot 10^{-5}$	$1.696 \cdot 10^{-5}$	0
cHWB	-0.001266	-0.001266	0	$6.093 \cdot 10^{-5}$	$6.093 \cdot 10^{-5}$	0
cHj3	0.001516	0.001516	0	$4.596 \cdot 10^{-5}$	$4.596 \cdot 10^{-5}$	0
cHl311	-0.001352	-0.001352	0	$5.896 \cdot 10^{-5}$	$5.896 \cdot 10^{-5}$	0
cHl322	-0.000403	-0.000403	0	$1.757 \cdot 10^{-5}$	$1.757 \cdot 10^{-5}$	0
cHl333	0.0005761	0.0005761	0	$1.746 \cdot 10^{-5}$	$1.746 \cdot 10^{-5}$	0
cHudIm	$-2.321 \cdot 10^{-33}$	$2.52 \cdot 10^{-31}$	109.6	$1.868 \cdot 10^{-16}$	$1.868 \cdot 10^{-16}$	$9.634 \cdot 10^{-7}$
cHudRe	$-4.004 \cdot 10^{-16}$	$-4.004 \cdot 10^{-16}$	$4.745 \cdot 10^{-7}$	$6.806 \cdot 10^{-17}$	$6.806 \cdot 10^{-17}$	$9.55 \cdot 10^{-7}$
cdWIm	$-5.812 \cdot 10^{-25}$	$-5.775 \cdot 10^{-25}$	0.006503	$3.807 \cdot 10^{-10}$	$3.807 \cdot 10^{-10}$	$6.305 \cdot 10^{-7}$
cdWRe	$-1.163 \cdot 10^{-9}$	$-1.163 \cdot 10^{-9}$	$3.439 \cdot 10^{-7}$	$9.672 \cdot 10^{-10}$	$9.672 \cdot 10^{-10}$	$6.307 \cdot 10^{-7}$
ceWIm33	$1.958 \cdot 10^{-22}$	$1.958 \cdot 10^{-22}$	0	0.004215	0.004215	0
ceWRe33	$-4.16 \cdot 10^{-5}$	$-4.16 \cdot 10^{-5}$	0	0.00339	0.00339	0
cledjIm33	$8.148 \cdot 10^{-14}$	$8.148 \cdot 10^{-14}$	$3.068 \cdot 10^{-7}$	$2.378 \cdot 10^{-8}$	$2.378 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$
cledjRe33	$-4.855 \cdot 10^{-10}$	$-4.855 \cdot 10^{-10}$	$3.296 \cdot 10^{-7}$	$2.378 \cdot 10^{-8}$	$2.378 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$
cleju1Im33	$-1.515 \cdot 10^{-11}$	$-1.515 \cdot 10^{-11}$	$1.32 \cdot 10^{-7}$	$4.434 \cdot 10^{-6}$	$4.434 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$
cleju1Re33	$9.032 \cdot 10^{-8}$	$9.032 \cdot 10^{-8}$	$1.439 \cdot 10^{-7}$	$4.434 \cdot 10^{-6}$	$4.434 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$
cleju3Im33	$-1.894 \cdot 10^{-11}$	$-1.894 \cdot 10^{-11}$	$1.584 \cdot 10^{-7}$	$6.255 \cdot 10^{-6}$	$6.255 \cdot 10^{-6}$	$2.878 \cdot 10^{-7}$
cleju3Re33	$1.131 \cdot 10^{-7}$	$1.131 \cdot 10^{-7}$	$1.769 \cdot 10^{-7}$	$6.255 \cdot 10^{-6}$	$6.255 \cdot 10^{-6}$	$2.878 \cdot 10^{-7}$
clj333	0.1466	0.1466	0	0.693	0.693	0
cll1221	0.0004372	0.0004372	0	$9.531 \cdot 10^{-6}$	$9.531 \cdot 10^{-6}$	0
cuWIm	$-4.762 \cdot 10^{-23}$	$-4.73 \cdot 10^{-23}$	0.006661	$4.569 \cdot 10^{-8}$	$4.569 \cdot 10^{-8}$	$2.626 \cdot 10^{-7}$
cuWRe	$-2.718 \cdot 10^{-7}$	$-2.718 \cdot 10^{-7}$	$1.472 \cdot 10^{-7}$	$7.099 \cdot 10^{-8}$	$7.099 \cdot 10^{-8}$	$2.676 \cdot 10^{-7}$

sm	0	0	0	0.0004513	0.0004513	0
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### 1.60 $d\bar{d} \rightarrow c\bar{c}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$2.084 \cdot 10^{-6}$	$2.084 \cdot 10^{-6}$	0	$1.323 \cdot 10^{-7}$	$1.323 \cdot 10^{-7}$	0
cHWB	-0.001459	-0.001459	0	$8.784 \cdot 10^{-5}$	$8.784 \cdot 10^{-5}$	0
cHd	$4.316 \cdot 10^{-5}$	$4.316 \cdot 10^{-5}$	0	$2.093 \cdot 10^{-5}$	$2.093 \cdot 10^{-5}$	0
cHj1	-0.0001787	-0.0001787	0	$1.421 \cdot 10^{-6}$	$1.421 \cdot 10^{-6}$	0
cHj3	0.0001889	0.0001889	0	$1.468 \cdot 10^{-5}$	$1.468 \cdot 10^{-5}$	0
cHl311	-0.001845	-0.001845	0	$8.682 \cdot 10^{-5}$	$8.682 \cdot 10^{-5}$	0
cHl322	-0.001389	-0.001389	0	$6.537 \cdot 10^{-5}$	$6.537 \cdot 10^{-5}$	0
cHu	0.0001222	0.0001222	0	$2.878 \cdot 10^{-5}$	$2.878 \cdot 10^{-5}$	0
cdBIm	$6.178 \cdot 10^{-28}$	$6.177 \cdot 10^{-28}$	$8.424 \cdot 10^{-5}$	$1.543 \cdot 10^{-12}$	$1.543 \cdot 10^{-12}$	$-1.167 \cdot 10^{-6}$
cdBRe	$-4.313 \cdot 10^{-13}$	$-4.313 \cdot 10^{-13}$	$-5.796 \cdot 10^{-7}$	$3.786 \cdot 10^{-13}$	$3.786 \cdot 10^{-13}$	$-1.162 \cdot 10^{-6}$
cdGIm	$9.501 \cdot 10^{-33}$	$-5.919 \cdot 10^{-33}$	1.623	$4.113 \cdot 10^{-12}$	$4.113 \cdot 10^{-12}$	$-1.167 \cdot 10^{-6}$
cdGRe	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	$-5.721 \cdot 10^{-7}$	$2.87 \cdot 10^{-11}$	$2.87 \cdot 10^{-11}$	$-1.15 \cdot 10^{-6}$
cdHIm	$-7.892 \cdot 10^{-32}$	$-5.016 \cdot 10^{-32}$	0.3644	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$-1.184 \cdot 10^{-6}$
cdHRe	$-1.194 \cdot 10^{-15}$	$-1.194 \cdot 10^{-15}$	$-5.862 \cdot 10^{-7}$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$-1.184 \cdot 10^{-6}$
cdWIm	$5.553 \cdot 10^{-28}$	$5.554 \cdot 10^{-28}$	-0.0001357	$3.418 \cdot 10^{-12}$	$3.418 \cdot 10^{-12}$	$-1.17 \cdot 10^{-6}$
cdWRe	$-6.021 \cdot 10^{-13}$	$-6.021 \cdot 10^{-13}$	$-5.979 \cdot 10^{-7}$	$6.643 \cdot 10^{-13}$	$6.643 \cdot 10^{-13}$	$-1.174 \cdot 10^{-6}$
cjd1	-0.008006	-0.008006	0	0.5722	0.5722	0
cjd8	0.2968	0.2968	0	0.1002	0.1002	0
cjj11	-0.04417	-0.04417	0	0.4321	0.4321	0
cjj18	0.8914	0.8914	$1.122 \cdot 10^{-8}$	0.6016	0.6016	0
cjj31	0.001724	0.001724	0	0.01686	0.01686	0
cjj38	-0.6984	-0.6984	0	0.4714	0.4714	0
cju1	0.0009138	0.0009138	0	0.03144	0.03144	0

cju8	0.02023	0.02023	0	0.006829	0.006829	0
cjujd11Im	$-6.642 \cdot 10^{-31}$	$-6.471 \cdot 10^{-31}$	0.02572	$2.303 \cdot 10^{-15}$	$2.303 \cdot 10^{-15}$	$-6.08 \cdot 10^{-7}$
cjujd11Re	$1.544 \cdot 10^{-15}$	$1.544 \cdot 10^{-15}$	$-3.238 \cdot 10^{-7}$	$4.014 \cdot 10^{-16}$	$4.014 \cdot 10^{-16}$	$-5.979 \cdot 10^{-7}$
cjujd1Im	$-1.401 \cdot 10^{-30}$	$-1.423 \cdot 10^{-30}$	-0.01564	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	$-5.747 \cdot 10^{-7}$
cjujd1Re	$-3.864 \cdot 10^{-14}$	$-3.864 \cdot 10^{-14}$	$-2.847 \cdot 10^{-7}$	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	$-5.747 \cdot 10^{-7}$
cjujd81Im	$2.416 \cdot 10^{-30}$	$2.553 \cdot 10^{-30}$	-0.05694	$1.917 \cdot 10^{-15}$	$1.917 \cdot 10^{-15}$	$-6.259 \cdot 10^{-7}$
cjujd81Re	$-1.757 \cdot 10^{-14}$	$-1.757 \cdot 10^{-14}$	$-2.846 \cdot 10^{-7}$	$3.943 \cdot 10^{-15}$	$3.943 \cdot 10^{-15}$	$-5.833 \cdot 10^{-7}$
cjujd8Im	$-7.929 \cdot 10^{-32}$	$-3.56 \cdot 10^{-32}$	0.551	$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	$-6.112 \cdot 10^{-7}$
cjujd8Re	$-4.076 \cdot 10^{-16}$	$-4.076 \cdot 10^{-16}$	$-2.944 \cdot 10^{-7}$	$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	$-5.877 \cdot 10^{-7}$
cll1221	$3.832 \cdot 10^{-5}$	$3.832 \cdot 10^{-5}$	0	$1.03 \cdot 10^{-6}$	$1.03 \cdot 10^{-6}$	0
cuBIm	$9.298 \cdot 10^{-25}$	$-4.323 \cdot 10^{-25}$	1.465	$5.126 \cdot 10^{-8}$	$5.126 \cdot 10^{-8}$	$2.926 \cdot 10^{-7}$
cuBRe	$-2.97 \cdot 10^{-9}$	$-2.97 \cdot 10^{-9}$	$1.347 \cdot 10^{-7}$	$5.126 \cdot 10^{-8}$	$5.126 \cdot 10^{-8}$	$2.731 \cdot 10^{-7}$
cuGIm	$4.669 \cdot 10^{-22}$	$3.681 \cdot 10^{-22}$	0.2116	$1.565 \cdot 10^{-6}$	$1.565 \cdot 10^{-6}$	$3.194 \cdot 10^{-7}$
cuGRe	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	$9.669 \cdot 10^{-8}$	$1.565 \cdot 10^{-6}$	$1.565 \cdot 10^{-6}$	$3.194 \cdot 10^{-7}$
cuHIm	$-5.155 \cdot 10^{-32}$	$-1.193 \cdot 10^{-31}$	-1.314	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$2.755 \cdot 10^{-7}$
cuHRe	$-1.194 \cdot 10^{-15}$	$-1.194 \cdot 10^{-15}$	$1.675 \cdot 10^{-7}$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$2.755 \cdot 10^{-7}$
cuWIm	$6.754 \cdot 10^{-24}$	$-8.602 \cdot 10^{-24}$	2.274	$3.436 \cdot 10^{-7}$	$3.436 \cdot 10^{-7}$	$2.91 \cdot 10^{-7}$
cuWRe	$-5.849 \cdot 10^{-8}$	$-5.849 \cdot 10^{-8}$	$1.368 \cdot 10^{-7}$	$2.534 \cdot 10^{-7}$	$2.534 \cdot 10^{-7}$	$2.762 \cdot 10^{-7}$
cud1	-0.03026	-0.03026	0	0.5303	0.5303	0
cud8	0.3229	0.3229	0	0.109	0.109	0
sm	0	0	0	0.5384	0.5384	0

### 1.61 $d\bar{d} \rightarrow e^+e^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-2.619 \cdot 10^{-5}$	$-2.619 \cdot 10^{-5}$	0	$8.307 \cdot 10^{-7}$	$8.307 \cdot 10^{-7}$	0
cHWB	$1.173 \cdot 10^{-5}$	$1.173 \cdot 10^{-5}$	0	$1.984 \cdot 10^{-5}$	$1.984 \cdot 10^{-5}$	0
cHd	$2.539 \cdot 10^{-5}$	$2.539 \cdot 10^{-5}$	0	$3.909 \cdot 10^{-6}$	$3.909 \cdot 10^{-6}$	0

cHe11	$-5.739 \cdot 10^{-5}$	$-5.739 \cdot 10^{-5}$	0	$8.91 \cdot 10^{-6}$	$8.91 \cdot 10^{-6}$	0
cHj1	$5.04 \cdot 10^{-5}$	$5.04 \cdot 10^{-5}$	0	$4.424 \cdot 10^{-6}$	$4.424 \cdot 10^{-6}$	0
cHj3	0.0001126	0.0001126	0	$3.236 \cdot 10^{-6}$	$3.236 \cdot 10^{-6}$	0
cHl111	$-8.661 \cdot 10^{-6}$	$-8.661 \cdot 10^{-6}$	0	$6.64 \cdot 10^{-7}$	$6.64 \cdot 10^{-7}$	0
cHl311	$-6.837 \cdot 10^{-5}$	$-6.837 \cdot 10^{-5}$	0	$1.377 \cdot 10^{-6}$	$1.377 \cdot 10^{-6}$	0
cHl322	-0.0004196	-0.0004196	0	$2.26 \cdot 10^{-5}$	$2.26 \cdot 10^{-5}$	0
cdBIm	$2.177 \cdot 10^{-27}$	$2.177 \cdot 10^{-27}$	0	$2.133 \cdot 10^{-12}$	$2.133 \cdot 10^{-12}$	$-1.172 \cdot 10^{-6}$
cdBRe	$6.732 \cdot 10^{-15}$	$6.732 \cdot 10^{-15}$	$-5.794 \cdot 10^{-7}$	$9.444 \cdot 10^{-13}$	$9.444 \cdot 10^{-13}$	$-1.175 \cdot 10^{-6}$
cdHIm	$-5.587 \cdot 10^{-40}$	$2.041 \cdot 10^{-39}$	4.653	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	$-1.174 \cdot 10^{-6}$
cdHRe	$-6.49 \cdot 10^{-23}$	$-6.49 \cdot 10^{-23}$	$-5.855 \cdot 10^{-7}$	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	$-1.174 \cdot 10^{-6}$
cdWIm	$2.594 \cdot 10^{-27}$	$2.594 \cdot 10^{-27}$	$-5.398 \cdot 10^{-7}$	$1.473 \cdot 10^{-12}$	$1.473 \cdot 10^{-12}$	$-1.154 \cdot 10^{-6}$
cdWRe	$-5.633 \cdot 10^{-13}$	$-5.633 \cdot 10^{-13}$	$-5.858 \cdot 10^{-7}$	$6.245 \cdot 10^{-13}$	$6.245 \cdot 10^{-13}$	$-1.169 \cdot 10^{-6}$
ceBIm11	$2.735 \cdot 10^{-24}$	$2.735 \cdot 10^{-24}$	0	0.0002878	0.0002878	0
ceBRe11	$2.225 \cdot 10^{-10}$	$2.225 \cdot 10^{-10}$	0	0.0003328	0.0003328	0
ceHIm11	$4.461 \cdot 10^{-34}$	$4.461 \cdot 10^{-34}$	0	$2.274 \cdot 10^{-13}$	$2.274 \cdot 10^{-13}$	0
ceHRe11	$-2.194 \cdot 10^{-17}$	$-2.194 \cdot 10^{-17}$	0	$2.274 \cdot 10^{-13}$	$2.274 \cdot 10^{-13}$	0
ceWIm11	$3.507 \cdot 10^{-24}$	$3.507 \cdot 10^{-24}$	0	0.0005346	0.0005346	0
ceWRe11	$-3.045 \cdot 10^{-9}$	$-3.045 \cdot 10^{-9}$	0	0.00215	0.00215	0
ced11	0.002143	0.002143	0	0.02503	0.02503	0
cje11	-0.01141	-0.01141	0	0.2615	0.2615	0
cld11	0.001776	0.001776	0	0.04176	0.04176	0
cledjIm11	$-1.096 \cdot 10^{-32}$	$-5.478 \cdot 10^{-33}$	0.5	$1.199 \cdot 10^{-10}$	$1.199 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
cledjRe11	$-7.12 \cdot 10^{-16}$	$-7.12 \cdot 10^{-16}$	$-5.899 \cdot 10^{-7}$	$1.199 \cdot 10^{-10}$	$1.199 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
clj111	0.006645	0.006645	0	0.03499	0.03499	0
clj311	0.03527	0.03527	0	0.1857	0.1857	0
cll1221	$1.666 \cdot 10^{-5}$	$1.666 \cdot 10^{-5}$	0	$5.945 \cdot 10^{-7}$	$5.945 \cdot 10^{-7}$	0
sm	0	0	0	0.0002958	0.0002958	0

**1.62**  $d\bar{d} \rightarrow s\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0006576	-0.0006576	0	$1.383 \cdot 10^{-5}$	$1.383 \cdot 10^{-5}$	0
cHWB	-0.001149	-0.001149	0	$4.218 \cdot 10^{-5}$	$4.218 \cdot 10^{-5}$	0
cHd	-0.0001403	-0.0001403	0	$6.734 \cdot 10^{-5}$	$6.734 \cdot 10^{-5}$	0
cHj1	0.001106	0.001106	0	$7.167 \cdot 10^{-5}$	$7.167 \cdot 10^{-5}$	0
cHj3	$3.837 \cdot 10^{-5}$	$3.837 \cdot 10^{-5}$	0	$3.381 \cdot 10^{-6}$	$3.381 \cdot 10^{-6}$	0
cHl311	-0.001008	-0.001008	0	$4.243 \cdot 10^{-5}$	$4.243 \cdot 10^{-5}$	0
cHl322	-0.001917	-0.001917	0	$8.067 \cdot 10^{-5}$	$8.067 \cdot 10^{-5}$	0
cdBIIm	$3.357 \cdot 10^{-26}$	$1.276 \cdot 10^{-26}$	0.6198	$2.734 \cdot 10^{-10}$	$2.734 \cdot 10^{-10}$	$6.219 \cdot 10^{-7}$
cdBRe	$-3.443 \cdot 10^{-10}$	$-3.443 \cdot 10^{-10}$	$3.195 \cdot 10^{-7}$	$6.447 \cdot 10^{-13}$	$6.447 \cdot 10^{-13}$	$6.205 \cdot 10^{-7}$
cdGIm	$-4.647 \cdot 10^{-25}$	$-4.636 \cdot 10^{-25}$	0.002406	$2.358 \cdot 10^{-11}$	$2.358 \cdot 10^{-11}$	$6.363 \cdot 10^{-7}$
cdGRe	$-5.56 \cdot 10^{-8}$	$-5.56 \cdot 10^{-8}$	$3.058 \cdot 10^{-7}$	$1.082 \cdot 10^{-8}$	$1.082 \cdot 10^{-8}$	$5.545 \cdot 10^{-7}$
cdHIm	$5.246 \cdot 10^{-34}$	$-2.706 \cdot 10^{-34}$	1.516	$3.893 \cdot 10^{-19}$	$3.893 \cdot 10^{-19}$	$-2.568 \cdot 10^{-7}$
cdHRe	$-1.289 \cdot 10^{-17}$	$-1.289 \cdot 10^{-17}$	$-1.552 \cdot 10^{-7}$	$7.787 \cdot 10^{-19}$	$7.787 \cdot 10^{-19}$	$-2.697 \cdot 10^{-7}$
cdWIm	$1.764 \cdot 10^{-26}$	$1.701 \cdot 10^{-26}$	0.03591	$2.061 \cdot 10^{-10}$	$2.061 \cdot 10^{-10}$	$6.307 \cdot 10^{-7}$
cdWRe	$-2.478 \cdot 10^{-9}$	$-2.478 \cdot 10^{-9}$	$3.228 \cdot 10^{-7}$	$3.817 \cdot 10^{-12}$	$3.817 \cdot 10^{-12}$	$6.287 \cdot 10^{-7}$
cdd1	0.01089	0.01089	0	0.7633	0.7633	0
cdd8	1.316	1.316	0	0.888	0.888	0
cjd1	-0.02744	-0.02744	0	1.887	1.887	0
cjd8	0.9362	0.9362	0	0.316	0.316	0
cjj11	0.01077	0.01077	0	0.0984	0.0984	0
cjj18	0.1379	0.1379	0	0.09305	0.09305	0
cjj31	0.2891	0.2891	0	2.64	2.64	0
cjj38	0.4181	0.4181	0	0.2822	0.2822	0
cll1221	$3.104 \cdot 10^{-5}$	$3.104 \cdot 10^{-5}$	0	$7.043 \cdot 10^{-7}$	$7.043 \cdot 10^{-7}$	0
sm	0	0	0	0.6906	0.6906	0

### 1.63 $e^+\nu_\mu \rightarrow e^+\nu_\mu$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.002693	-0.002693	0	0.0001399	0.0001399	0
cHWB	0.01129	0.01129	0	0.008849	0.008849	0
cHe11	-0.005424	-0.005424	0	0.0003519	0.0003519	0
cH1111	0.06358	0.06358	0	0.003617	0.003617	0
cH1122	-0.0005532	-0.0005532	0	$1.677 \cdot 10^{-5}$	$1.677 \cdot 10^{-5}$	0
cH1311	0.0007891	0.0007891	0	$2.49 \cdot 10^{-5}$	$2.49 \cdot 10^{-5}$	0
cH1322	0.004213	0.004213	0	0.0009711	0.0009711	0
ceBIm11	$-6.397 \cdot 10^{-23}$	$-6.397 \cdot 10^{-23}$	0	0.009718	0.009718	0
ceBRe11	$1.279 \cdot 10^{-8}$	$1.279 \cdot 10^{-8}$	0	0.002133	0.002133	0
ceWIm11	$2.391 \cdot 10^{-24}$	$2.391 \cdot 10^{-24}$	0	0.0476	0.0476	0
ceWRe11	$3.77 \cdot 10^{-8}$	$3.77 \cdot 10^{-8}$	0	0.0188	0.0188	0
cle2211	-0.1602	-0.1602	0	1	1	0
c111122	0.05553	0.05553	0	0.2093	0.2093	0
c111221	0.0006348	0.0006348	0	$4.447 \cdot 10^{-5}$	$4.447 \cdot 10^{-5}$	0
sm	0	0	0	0.02634	0.02634	0

### 1.64 $e^+\nu_e \rightarrow \mu^+\nu_\mu$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.002171	-0.002171	0	$4.733 \cdot 10^{-5}$	$4.733 \cdot 10^{-5}$	0
cHWB	-0.006568	-0.006568	0	0.0003162	0.0003162	0
cH1311	-0.0001616	-0.0001616	0	$2.147 \cdot 10^{-6}$	$2.147 \cdot 10^{-6}$	0
cH1322	-0.00139	-0.00139	0	$1.847 \cdot 10^{-5}$	$1.847 \cdot 10^{-5}$	0
ceWIm11	$-3.008 \cdot 10^{-23}$	$-3.008 \cdot 10^{-23}$	0	0.01083	0.01083	0

ceWIm22	$5.021 \cdot 10^{-33}$	$5.021 \cdot 10^{-33}$	0	0.009951	0.009951	0
ceWRe11	$-1.458 \cdot 10^{-8}$	$-1.458 \cdot 10^{-8}$	0	0.01077	0.01077	0
ceWRe22	$-3.014 \cdot 10^{-6}$	$-3.014 \cdot 10^{-6}$	0	0.01077	0.01077	0
cle1221	$1.786 \cdot 10^{-9}$	$1.786 \cdot 10^{-9}$	0	1	1	0
c111221	0.001344	0.001344	0	0.003204	0.003204	0
sm	0	0	0	0.01348	0.01348	0

### 1.65 $e^+\nu_e \rightarrow e^+\nu_e$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.003013	-0.003013	0	$9.521 \cdot 10^{-5}$	$9.521 \cdot 10^{-5}$	0
cHWB	-0.00419	-0.00419	0	0.001905	0.001905	0
cHe11	-0.001439	-0.001439	0	$9.336 \cdot 10^{-5}$	$9.336 \cdot 10^{-5}$	0
cH1111	-0.0005371	-0.0005371	0	$1.651 \cdot 10^{-5}$	$1.651 \cdot 10^{-5}$	0
cH1311	0.003818	0.003818	0	0.0001251	0.0001251	0
cH1322	-0.001381	-0.001381	0	$9.955 \cdot 10^{-5}$	$9.955 \cdot 10^{-5}$	0
ceBIm11	$-3.076 \cdot 10^{-22}$	$-3.076 \cdot 10^{-22}$	0	0.001321	0.001321	0
ceBRe11	$9.163 \cdot 10^{-8}$	$9.163 \cdot 10^{-8}$	0	0.02821	0.02821	0
ceWIm11	$-4.696 \cdot 10^{-20}$	$-4.696 \cdot 10^{-20}$	0	0.1939	0.1939	0
ceWRe11	$8.073 \cdot 10^{-8}$	$8.073 \cdot 10^{-8}$	0	0.3094	0.3094	0
cle1111	-0.2475	-0.2475	0	1	1	0
c111111	0.3394	0.3394	0	0.9622	0.9622	0
c111221	$4.744 \cdot 10^{-5}$	$4.744 \cdot 10^{-5}$	0	$5.918 \cdot 10^{-6}$	$5.918 \cdot 10^{-6}$	0
sm	0	0	0	0.01123	0.01123	0

### 1.66 $e^+\tau^- \rightarrow e^+\tau^-$

interference

square

	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-6.605 \cdot 10^{-5}$	$-6.605 \cdot 10^{-5}$	0	$4.37 \cdot 10^{-5}$	$4.37 \cdot 10^{-5}$	0
cHWB	-0.0161	-0.0161	0	0.005244	0.005244	0
cHe11	0.0007443	0.0007443	0	$2.674 \cdot 10^{-5}$	$2.674 \cdot 10^{-5}$	0
cHe33	0.001126	0.001126	0	$5.874 \cdot 10^{-5}$	$5.874 \cdot 10^{-5}$	0
cHl111	0.00451	0.00451	0	0.0005214	0.0005214	0
cHl133	0.006334	0.006334	0	0.0006421	0.0006421	0
cHl311	-0.0002584	-0.0002584	0	$3.288 \cdot 10^{-5}$	$3.288 \cdot 10^{-5}$	0
cHl322	0.0005866	0.0005866	0	$5.146 \cdot 10^{-5}$	$5.146 \cdot 10^{-5}$	0
cHl333	-0.0008265	-0.0008265	0	$4.099 \cdot 10^{-5}$	$4.099 \cdot 10^{-5}$	0
ceBIm11	$-1.488 \cdot 10^{-17}$	$-1.488 \cdot 10^{-17}$	0	0.006554	0.006554	0
ceBIm33	$3.381 \cdot 10^{-14}$	$3.381 \cdot 10^{-14}$	0	0.1072	0.1072	0
ceBRe11	$1.916 \cdot 10^{-8}$	$1.916 \cdot 10^{-8}$	0	0.008328	0.008328	0
ceBRe33	$-3.298 \cdot 10^{-5}$	$-3.298 \cdot 10^{-5}$	0	0.05268	0.05268	0
ceHIm11	$-4.388 \cdot 10^{-20}$	$-4.388 \cdot 10^{-20}$	0	$6.845 \cdot 10^{-8}$	$6.845 \cdot 10^{-8}$	0
ceHIm33	$4.997 \cdot 10^{-26}$	$4.997 \cdot 10^{-26}$	0	$5.659 \cdot 10^{-15}$	$5.659 \cdot 10^{-15}$	0
ceHRe11	$-1.398 \cdot 10^{-11}$	$-1.398 \cdot 10^{-11}$	0	$8.483 \cdot 10^{-8}$	$8.483 \cdot 10^{-8}$	0
ceHRe33	$-2.775 \cdot 10^{-15}$	$-2.775 \cdot 10^{-15}$	0	$7.515 \cdot 10^{-15}$	$7.515 \cdot 10^{-15}$	0
ceWIm11	$3.517 \cdot 10^{-17}$	$3.517 \cdot 10^{-17}$	0	0.01378	0.01378	0
ceWIm33	$3.402 \cdot 10^{-14}$	$3.402 \cdot 10^{-14}$	0	0.005416	0.005416	0
ceWRe11	$1.167 \cdot 10^{-8}$	$1.167 \cdot 10^{-8}$	0	0.04022	0.04022	0
ceWRe33	0.0001478	0.0001478	0	0.0872	0.0872	0
cee1133	-0.2541	-0.2541	0	0.3812	0.3812	0
cle1133	-0.2161	-0.2161	0	1	1	0
cle1331	$-2.07 \cdot 10^{-8}$	$-2.07 \cdot 10^{-8}$	0	0.01469	0.01469	0
cle3311	-0.1565	-0.1565	0	1	1	0
c1l1133	-0.8724	-0.8724	0	0.6411	0.6411	0
c1l1221	-0.0002769	-0.0002769	0	$2.508 \cdot 10^{-6}$	$2.508 \cdot 10^{-6}$	0
c1l1331	-0.07109	-0.07109	0	0.1571	0.1571	0



sm	0	0	0	0.3873	0.3873	0
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### 1.67 $e^+e^- \rightarrow \mu^+\mu^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0003878	-0.0003878	0	$1.166 \cdot 10^{-5}$	$1.166 \cdot 10^{-5}$	0
cHWB	-0.0002078	-0.0002078	0	$7.008 \cdot 10^{-5}$	$7.008 \cdot 10^{-5}$	0
cHe11	0.000122	0.000122	0	$1.036 \cdot 10^{-5}$	$1.036 \cdot 10^{-5}$	0
cHe22	$1.759 \cdot 10^{-5}$	$1.759 \cdot 10^{-5}$	0	$9.444 \cdot 10^{-6}$	$9.444 \cdot 10^{-6}$	0
cHl111	-0.0003596	-0.0003596	0	$1.199 \cdot 10^{-5}$	$1.199 \cdot 10^{-5}$	0
cHl122	-0.0002812	-0.0002812	0	$1.076 \cdot 10^{-5}$	$1.076 \cdot 10^{-5}$	0
cHl311	-0.0001685	-0.0001685	0	$2.341 \cdot 10^{-5}$	$2.341 \cdot 10^{-5}$	0
cHl322	-0.0001049	-0.0001049	0	$1.45 \cdot 10^{-5}$	$1.45 \cdot 10^{-5}$	0
ceBIm11	$4.137 \cdot 10^{-23}$	$4.137 \cdot 10^{-23}$	0	0.008813	0.008813	0
ceBIm22	$1.697 \cdot 10^{-22}$	$1.697 \cdot 10^{-22}$	0	0.008534	0.008534	0
ceBRe11	$3.988 \cdot 10^{-8}$	$3.988 \cdot 10^{-8}$	0	0.009333	0.009333	0
ceBRe22	$6.064 \cdot 10^{-6}$	$6.064 \cdot 10^{-6}$	0	0.006029	0.006029	0
ceHIm11	$-3.266 \cdot 10^{-30}$	$-3.266 \cdot 10^{-30}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
ceHIm22	$9.821 \cdot 10^{-33}$	$9.821 \cdot 10^{-33}$	0	$8.169 \cdot 10^{-15}$	$8.169 \cdot 10^{-15}$	0
ceHRe11	$-3.356 \cdot 10^{-14}$	$-3.356 \cdot 10^{-14}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
ceHRe22	$-1.668 \cdot 10^{-16}$	$-1.668 \cdot 10^{-16}$	0	$8.169 \cdot 10^{-15}$	$8.169 \cdot 10^{-15}$	0
ceWIm11	$7.659 \cdot 10^{-24}$	$7.659 \cdot 10^{-24}$	0	0.004045	0.004045	0
ceWIm22	$-1.872 \cdot 10^{-22}$	$-1.872 \cdot 10^{-22}$	0	0.001718	0.001718	0
ceWRe11	$-2.548 \cdot 10^{-8}$	$-2.548 \cdot 10^{-8}$	0	0.005984	0.005984	0
ceWRe22	$-5.269 \cdot 10^{-6}$	$-5.269 \cdot 10^{-6}$	0	0.005984	0.005984	0
cee1122	0.1448	0.1448	0	0.5637	0.5637	0
cle1122	0.03844	0.03844	0	0.3014	0.3014	0
cle1221	$3.565 \cdot 10^{-9}$	$3.565 \cdot 10^{-9}$	0	2	2	0

cle2211	0.02107	0.02107	0	0.1651	0.1651	0
c111122	0.2349	0.2349	0	0.8543	0.8543	0
c111221	0.03309	0.03309	0	0.1214	0.1214	0
sm	0	0	0	0.00812	0.00812	0

### 1.68 $e^+e^- \rightarrow e^+e^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	0.0007675	0.0007675	0	$1.152 \cdot 10^{-5}$	$1.152 \cdot 10^{-5}$	0
cHWB	-0.001581	-0.001581	0	0.0001862	0.0001862	0
cHe11	0.003132	0.003132	0	0.0001114	0.0001114	0
cH1111	-0.004027	-0.004027	0	0.0001818	0.0001818	0
cH1311	-0.003977	-0.003977	0	0.000306	0.000306	0
cH1322	0.001031	0.001031	0	$1.439 \cdot 10^{-5}$	$1.439 \cdot 10^{-5}$	0
ceBIm11	$-1.129 \cdot 10^{-22}$	$-1.129 \cdot 10^{-22}$	0	0.1166	0.1166	0
ceBRe11	$1.234 \cdot 10^{-7}$	$1.234 \cdot 10^{-7}$	0	0.09892	0.09892	0
ceHIm11	$1.105 \cdot 10^{-24}$	$1.105 \cdot 10^{-24}$	0	$6.317 \cdot 10^{-14}$	$6.317 \cdot 10^{-14}$	0
ceHRe11	$6.145 \cdot 10^{-8}$	$6.145 \cdot 10^{-8}$	0	$9.335 \cdot 10^{-14}$	$9.335 \cdot 10^{-14}$	0
ceWIm11	$-1.118 \cdot 10^{-22}$	$-1.118 \cdot 10^{-22}$	0	0.01534	0.01534	0
ceWRe11	$-6.928 \cdot 10^{-8}$	$-6.928 \cdot 10^{-8}$	0	0.07256	0.07256	0
cee1111	-0.3634	-0.3634	0	4.765	4.765	0
cle1111	-0.1445	-0.1445	0	3.337	3.337	0
c111111	-0.007923	-0.007923	0	0.532	0.532	0
c111221	-0.0005898	-0.0005898	0	$4.752 \cdot 10^{-6}$	$4.752 \cdot 10^{-6}$	0
sm	0	0	0	0.03823	0.03823	0

### 1.69 $gg \rightarrow gg$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cG	$8.548 \cdot 10^{-10}$	$8.548 \cdot 10^{-10}$	$-3.276 \cdot 10^{-7}$	101.1	101.1	0
cGtil	$3.195 \cdot 10^{-16}$	$2.867 \cdot 10^{-16}$	$0.1027$	91.29	91.29	0
cHGtil	$6.496 \cdot 10^{-14}$	$6.496 \cdot 10^{-14}$	0	$4.281 \cdot 10^{-31}$	$4.281 \cdot 10^{-31}$	0
sm	0	0	0	129.1	129.1	0

### 1.70 $gg \rightarrow ggg$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cG	-0.007337	-0.007337	0	0.03177	0.03177	0
cGtil	-0.00402	-0.00402	0	0.02475	0.02475	0
cHGtil	$-8.891 \cdot 10^{-15}$	$-8.891 \cdot 10^{-15}$	0	$1.099 \cdot 10^{-26}$	$1.099 \cdot 10^{-26}$	0
sm	0	0	0	0.3733	0.3733	0

### 1.71 $gg \rightarrow t\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cG	-0.01184	-0.01184	0	2.384	2.384	0
cGtil	$-1.054 \cdot 10^{-17}$	$-1.054 \cdot 10^{-17}$	0	2.5	2.5	0
cHG	-0.0482	-0.0482	0	0.04069	0.04069	0
cHGtil	$-2.928 \cdot 10^{-18}$	$-2.928 \cdot 10^{-18}$	0	0.04069	0.04069	0
ctGIm	$5.468 \cdot 10^{-18}$	$5.468 \cdot 10^{-18}$	0	0.09942	0.09942	0
ctGRe	-0.5927	-0.5927	0	0.118	0.118	0
sm	0	0	0	0.4375	0.4375	0

### 1.72 $gg \rightarrow u\bar{u}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cG	$-9.299 \cdot 10^{-11}$	$-9.299 \cdot 10^{-11}$	0	0.8092	0.8092	0
cGtil	$-3.662 \cdot 10^{-17}$	$-3.662 \cdot 10^{-17}$	0	0.6964	0.6964	0
cHG	$-7.563 \cdot 10^{-12}$	$-7.563 \cdot 10^{-12}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0
cHGtil	$4.249 \cdot 10^{-29}$	$4.249 \cdot 10^{-29}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0
cuGIm	$-3.716 \cdot 10^{-28}$	$1.553 \cdot 10^{-27}$	5.179	$1.445 \cdot 10^{-11}$	$1.445 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$
cuGRe	$-5.707 \cdot 10^{-11}$	$-5.707 \cdot 10^{-11}$	$-7.184 \cdot 10^{-7}$	$1.445 \cdot 10^{-11}$	$1.445 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$
sm	0	0	0	0.558	0.558	0

### 1.73 $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0002921	-0.0002921	0	$5.602 \cdot 10^{-6}$	$5.602 \cdot 10^{-6}$	0
cHWB	$5.677 \cdot 10^{-5}$	$5.677 \cdot 10^{-5}$	0	$5.952 \cdot 10^{-6}$	$5.952 \cdot 10^{-6}$	0
cHd	$-2.155 \cdot 10^{-5}$	$-2.155 \cdot 10^{-5}$	0	$4.196 \cdot 10^{-6}$	$4.196 \cdot 10^{-6}$	0
cHj1	0.0003288	0.0003288	0	$1.181 \cdot 10^{-5}$	$1.181 \cdot 10^{-5}$	0
cHj3	0.0004418	0.0004418	0	$1.586 \cdot 10^{-5}$	$1.586 \cdot 10^{-5}$	0
cHl133	$-1.828 \cdot 10^{-5}$	$-1.828 \cdot 10^{-5}$	0	$5.541 \cdot 10^{-7}$	$5.541 \cdot 10^{-7}$	0
cHl1311	$-3.668 \cdot 10^{-5}$	$-3.668 \cdot 10^{-5}$	0	$1.649 \cdot 10^{-6}$	$1.649 \cdot 10^{-6}$	0
cHl1322	$-7.409 \cdot 10^{-6}$	$-7.409 \cdot 10^{-6}$	0	$5.986 \cdot 10^{-7}$	$5.986 \cdot 10^{-7}$	0
cHl1333	$3.052 \cdot 10^{-5}$	$3.052 \cdot 10^{-5}$	0	$9.252 \cdot 10^{-7}$	$9.252 \cdot 10^{-7}$	0
cdBIm	$-9.827 \cdot 10^{-25}$	$-9.827 \cdot 10^{-25}$	$7.123 \cdot 10^{-7}$	$1.856 \cdot 10^{-10}$	$1.856 \cdot 10^{-10}$	$6.467 \cdot 10^{-7}$
cdBRe	$-1.855 \cdot 10^{-10}$	$-1.855 \cdot 10^{-10}$	$3.234 \cdot 10^{-7}$	$1.875 \cdot 10^{-10}$	$1.875 \cdot 10^{-10}$	$6.401 \cdot 10^{-7}$
cdWIm	$5.508 \cdot 10^{-26}$	$5.508 \cdot 10^{-26}$	$2.547 \cdot 10^{-5}$	$3.597 \cdot 10^{-10}$	$3.597 \cdot 10^{-10}$	$6.394 \cdot 10^{-7}$
cdWRe	$-3.361 \cdot 10^{-10}$	$-3.361 \cdot 10^{-10}$	$3.273 \cdot 10^{-7}$	$6.152 \cdot 10^{-10}$	$6.152 \cdot 10^{-10}$	$6.34 \cdot 10^{-7}$

cld33	0.007914	0.007914	0	0.1837	0.1837	0
clj133	-0.05499	-0.05499	0	0.2355	0.2355	0
clj333	0.00462	0.00462	0	0.01978	0.01978	0
cll1221	0.0001153	0.0001153	0	$2.23 \cdot 10^{-6}$	$2.23 \cdot 10^{-6}$	0
sm	0	0	0	0.001146	0.001146	0

### 1.74 $s\bar{s} \rightarrow s\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-2.39	-2.39	0	0.0641	0.0641	0
cHWB	0.009693	0.009693	0	0.0001788	0.0001788	0
cHd	-0.0003562	-0.0003562	0	0.0001993	0.0001993	0
cHj1	-0.009508	-0.009508	0	0.0001057	0.0001057	0
cHj3	-0.0001256	-0.0001256	0	$8.366 \cdot 10^{-6}$	$8.366 \cdot 10^{-6}$	0
cHl311	0.01147	0.01147	0	$9.281 \cdot 10^{-5}$	$9.281 \cdot 10^{-5}$	0
cHl322	$1.193 \cdot 10^{-5}$	$1.193 \cdot 10^{-5}$	0	$1.492 \cdot 10^{-7}$	$1.492 \cdot 10^{-7}$	0
cdBIm	$-1.616 \cdot 10^{-23}$	$-1.648 \cdot 10^{-23}$	-0.0203	$1.677 \cdot 10^{-9}$	$1.677 \cdot 10^{-9}$	$6.559 \cdot 10^{-7}$
cdBRe	$5.114 \cdot 10^{-9}$	$5.114 \cdot 10^{-9}$	$3.129 \cdot 10^{-7}$	$1.1 \cdot 10^{-9}$	$1.1 \cdot 10^{-9}$	$6.366 \cdot 10^{-7}$
cdGIm	$-2.228 \cdot 10^{-24}$	$-8.353 \cdot 10^{-25}$	0.6251	$2.065 \cdot 10^{-8}$	$2.065 \cdot 10^{-8}$	$6.297 \cdot 10^{-7}$
cdGRe	$-2.354 \cdot 10^{-7}$	$-2.354 \cdot 10^{-7}$	$3.399 \cdot 10^{-7}$	$1.403 \cdot 10^{-7}$	$1.403 \cdot 10^{-7}$	$6.416 \cdot 10^{-7}$
cdHIm	$-2.071 \cdot 10^{-24}$	$-3.389 \cdot 10^{-24}$	-0.6363	$3.8 \cdot 10^{-16}$	$3.8 \cdot 10^{-16}$	$6.316 \cdot 10^{-7}$
cdHRe	$5.537 \cdot 10^{-8}$	$5.537 \cdot 10^{-8}$	$3.251 \cdot 10^{-7}$	$6.894 \cdot 10^{-16}$	$6.894 \cdot 10^{-16}$	$6.382 \cdot 10^{-7}$
cdWIm	$7.034 \cdot 10^{-25}$	$1.008 \cdot 10^{-24}$	-0.4331	$2.911 \cdot 10^{-9}$	$2.911 \cdot 10^{-9}$	$6.528 \cdot 10^{-7}$
cdWRe	$-2.703 \cdot 10^{-8}$	$-2.703 \cdot 10^{-8}$	$3.329 \cdot 10^{-7}$	$6.491 \cdot 10^{-9}$	$6.491 \cdot 10^{-9}$	$6.316 \cdot 10^{-7}$
cdd1	-6.692	-6.692	0	6.757	6.757	0
cdd8	-0.004935	-0.004935	$-1.013 \cdot 10^{-7}$	0.03259	0.03259	$-1.841 \cdot 10^{-7}$
cjd1	0.005204	0.005204	0	3.711	3.711	0
cjd8	-5.769	-5.769	0	0.4671	0.4671	0

cjj11	-6.56	-6.56	0	6.396	6.396	0
cjj18	-0.02172	-0.02172	0	0.07338	0.07338	$-2.726 \cdot 10^{-8}$
cjj31	-308.3	-308.3	0	10.47	10.47	0
cjj38	-0.353	-0.353	$-8.499 \cdot 10^{-8}$	0.3404	0.3404	$-1.763 \cdot 10^{-7}$
cll1221	$-7.596 \cdot 10^{-5}$	$-7.596 \cdot 10^{-5}$	0	$2.279 \cdot 10^{-7}$	$2.279 \cdot 10^{-7}$	0
sm	0	0	0	2.411	2.411	0

### 1.75 $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0002774	-0.0002774	0	$7.07 \cdot 10^{-6}$	$7.07 \cdot 10^{-6}$	0
cHQ1	$3.212 \cdot 10^{-6}$	$3.212 \cdot 10^{-6}$	0	$1.75 \cdot 10^{-7}$	$1.75 \cdot 10^{-7}$	0
cHQ3	0.0003489	0.0003489	0	$1.568 \cdot 10^{-5}$	$1.568 \cdot 10^{-5}$	0
cHWB	-0.0004929	-0.0004929	0	$2.45 \cdot 10^{-5}$	$2.45 \cdot 10^{-5}$	0
cHl122	-0.0001464	-0.0001464	0	$4.438 \cdot 10^{-6}$	$4.438 \cdot 10^{-6}$	0
cHl311	-0.0003617	-0.0003617	0	$1.874 \cdot 10^{-5}$	$1.874 \cdot 10^{-5}$	0
cHl322	$2.154 \cdot 10^{-5}$	$2.154 \cdot 10^{-5}$	0	$3.08 \cdot 10^{-6}$	$3.08 \cdot 10^{-6}$	0
cHt	0.0001722	0.0001722	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0
cQl122	-0.0006883	-0.0006883	0	0.0008859	0.0008859	0
cQl322	0.005144	0.005144	0	0.03151	0.03151	0
cll1221	$1.485 \cdot 10^{-5}$	$1.485 \cdot 10^{-5}$	0	$7.802 \cdot 10^{-7}$	$7.802 \cdot 10^{-7}$	0
ctBIm	$7.305 \cdot 10^{-19}$	$7.305 \cdot 10^{-19}$	0	0.0005339	0.0005339	0
ctBRe	-0.0003499	-0.0003499	0	0.0004182	0.0004182	0
ctWIm	$-4.392 \cdot 10^{-20}$	$-4.392 \cdot 10^{-20}$	0	0.001345	0.001345	0
ctWRe	-0.002329	-0.002329	0	0.0008153	0.0008153	0
ctl22	-0.02518	-0.02518	0	0.3143	0.3143	0
sm	0	0	0	0.001389	0.001389	0

# 1.76 $t\bar{t} \rightarrow \tau^+\tau^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.00026	-0.00026	0	$6.485 \cdot 10^{-6}$	$6.485 \cdot 10^{-6}$	0
cHQ1	-0.0003012	-0.0003012	0	$5.911 \cdot 10^{-6}$	$5.911 \cdot 10^{-6}$	0
cHQ3	0.0001063	0.0001063	0	$3.325 \cdot 10^{-6}$	$3.325 \cdot 10^{-6}$	0
cHWB	-0.0005706	-0.0005706	0	$7.921 \cdot 10^{-5}$	$7.921 \cdot 10^{-5}$	0
cHe33	$-1.646 \cdot 10^{-5}$	$-1.646 \cdot 10^{-5}$	0	$3.057 \cdot 10^{-6}$	$3.057 \cdot 10^{-6}$	0
cHl133	0.0004085	0.0004085	0	$9.903 \cdot 10^{-6}$	$9.903 \cdot 10^{-6}$	0
cHl311	$-4.949 \cdot 10^{-6}$	$-4.949 \cdot 10^{-6}$	0	$1.59 \cdot 10^{-6}$	$1.59 \cdot 10^{-6}$	0
cHl322	$-4.527 \cdot 10^{-5}$	$-4.527 \cdot 10^{-5}$	0	$3.198 \cdot 10^{-6}$	$3.198 \cdot 10^{-6}$	0
cHl333	0.000147	0.000147	0	$4.147 \cdot 10^{-6}$	$4.147 \cdot 10^{-6}$	0
cHt	$4.926 \cdot 10^{-5}$	$4.926 \cdot 10^{-5}$	0	$3.102 \cdot 10^{-6}$	$3.102 \cdot 10^{-6}$	0
cQe33	-0.008618	-0.008618	0	0.1647	0.1647	0
cQl133	-0.07169	-0.07169	0	0.3048	0.3048	0
cQl333	0.06878	0.06878	0	0.2923	0.2923	0
ceBIm33	$1.787 \cdot 10^{-20}$	$1.787 \cdot 10^{-20}$	0	0.0008797	0.0008797	0
ceBRe33	$-3.033 \cdot 10^{-5}$	$-3.033 \cdot 10^{-5}$	0	0.0003056	0.0003056	0
ceHIm33	$1.357 \cdot 10^{-21}$	$1.357 \cdot 10^{-21}$	0	0.0002929	0.0002929	0
ceHRe33	$-9.962 \cdot 10^{-5}$	$-9.962 \cdot 10^{-5}$	0	0.0002929	0.0002929	0
ceWIm33	$-6.451 \cdot 10^{-20}$	$-6.451 \cdot 10^{-20}$	0	0.00131	0.00131	0
ceWRe33	$2.318 \cdot 10^{-6}$	$2.318 \cdot 10^{-6}$	0	0.001765	0.001765	0
cleQt1Im33	$-9.486 \cdot 10^{-20}$	$-9.486 \cdot 10^{-20}$	0	0.1668	0.1668	0
cleQt1Re33	0.00333	0.00333	0	0.1668	0.1668	0
cleQt3Im33	$-5.339 \cdot 10^{-19}$	$-5.339 \cdot 10^{-19}$	$8.816 \cdot 10^{-5}$	2.237	2.237	0
cleQt3Re33	-0.0003626	-0.0003626	0	0.1661	0.1661	0
c1l1221	0.0001326	0.0001326	0	$3.338 \cdot 10^{-6}$	$3.338 \cdot 10^{-6}$	0
ctBIm	$-1.171 \cdot 10^{-18}$	$-1.171 \cdot 10^{-18}$	0	0.002592	0.002592	0
ctBRe	-0.002994	-0.002994	0	0.003732	0.003732	0

ctHIm	$6.707 \cdot 10^{-24}$	$6.707 \cdot 10^{-24}$	0	$3.492 \cdot 10^{-8}$	$3.492 \cdot 10^{-8}$	0
ctHRe	$-1 \cdot 10^{-6}$	$-1 \cdot 10^{-6}$	0	$3.099 \cdot 10^{-8}$	$3.099 \cdot 10^{-8}$	0
ctWIm	$-1.579 \cdot 10^{-18}$	$-1.579 \cdot 10^{-18}$	0	0.00118	0.00118	0
ctWRe	-0.002976	-0.002976	0	0.0008593	0.0008593	0
cte33	-0.05045	-0.05045	0	0.2923	0.2923	0
ctl33	-0.009105	-0.009105	0	0.07985	0.07985	0
sm	0	0	0	0.001011	0.001011	0

### 1.77 $t\bar{t} \rightarrow c\bar{c}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-9.447 \cdot 10^{-5}$	$-9.447 \cdot 10^{-5}$	0	$2.301 \cdot 10^{-6}$	$2.301 \cdot 10^{-6}$	0
cHQ1	-0.0007782	-0.0007782	0	$2.119 \cdot 10^{-5}$	$2.119 \cdot 10^{-5}$	0
cHQ3	0.000589	0.000589	0	$1.669 \cdot 10^{-5}$	$1.669 \cdot 10^{-5}$	0
cHWB	-0.001146	-0.001146	0	$9.957 \cdot 10^{-5}$	$9.957 \cdot 10^{-5}$	0
cHj1	-0.0005809	-0.0005809	0	$1.579 \cdot 10^{-5}$	$1.579 \cdot 10^{-5}$	0
cHj3	0.0008982	0.0008982	0	$2.345 \cdot 10^{-5}$	$2.345 \cdot 10^{-5}$	0
cHl311	-0.0009539	-0.0009539	0	$4.475 \cdot 10^{-5}$	$4.475 \cdot 10^{-5}$	0
cHl322	-0.0001886	-0.0001886	0	$9.19 \cdot 10^{-6}$	$9.19 \cdot 10^{-6}$	0
cHt	$-2.865 \cdot 10^{-5}$	$-2.865 \cdot 10^{-5}$	0	$1.269 \cdot 10^{-5}$	$1.269 \cdot 10^{-5}$	0
cHu	0.0001941	0.0001941	0	$5.153 \cdot 10^{-6}$	$5.153 \cdot 10^{-6}$	0
cQj11	0.1605	0.1605	0	0.7307	0.7307	0
cQj18	0.4666	0.4666	0	0.1508	0.1508	0
cQj31	0.1047	0.1047	0	0.4756	0.4756	0
cQj38	0.4953	0.4953	0	0.1605	0.1605	0
cQu1	0.004315	0.004315	0	0.03237	0.03237	0
cQu8	0.04759	0.04759	0	0.009427	0.009427	0
cjQtu1Im	$-2.597 \cdot 10^{-22}$	$-3.484 \cdot 10^{-21}$	-12.41	0.0001065	0.0001065	$2.817 \cdot 10^{-7}$



cjQtu1Re	$4.152 \cdot 10^{-5}$	$4.152 \cdot 10^{-5}$	$1.204 \cdot 10^{-7}$	0.0001065	0.0001065	$2.817 \cdot 10^{-7}$
cjQtu8Im	$1.763 \cdot 10^{-21}$	$-1.45 \cdot 10^{-21}$	1.822	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	$2.957 \cdot 10^{-7}$
cjQtu8Re	$4.751 \cdot 10^{-5}$	$4.751 \cdot 10^{-5}$	$1.263 \cdot 10^{-7}$	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	$2.535 \cdot 10^{-7}$
c111221	0.0007329	0.0007329	0	$1.72 \cdot 10^{-5}$	$1.72 \cdot 10^{-5}$	0
ctBIm	$1.531 \cdot 10^{-18}$	$1.531 \cdot 10^{-18}$	$-2.685 \cdot 10^{-5}$	0.002932	0.002932	0
ctBRe	-0.002745	-0.002745	0	0.004271	0.004271	0
ctGIm	$-1.943 \cdot 10^{-23}$	$-2.118 \cdot 10^{-23}$	-0.08986	0.01167	0.01167	0
ctGRe	-0.1986	-0.1986	0	0.0414	0.0414	0
ctHIm	$-1.747 \cdot 10^{-24}$	$4.623 \cdot 10^{-23}$	27.47	$5.351 \cdot 10^{-8}$	$5.351 \cdot 10^{-8}$	0
ctHRe	$-1.547 \cdot 10^{-6}$	$-1.547 \cdot 10^{-6}$	0	$4.749 \cdot 10^{-8}$	$4.749 \cdot 10^{-8}$	0
ctWIm	$5.511 \cdot 10^{-19}$	$5.512 \cdot 10^{-19}$	-0.0001494	0.003606	0.003606	0
ctWRe	-0.00356	-0.00356	0	0.006686	0.006686	0
ctj1	0.009761	0.009761	0	0.1157	0.1157	0
ctj8	0.2424	0.2424	0	0.07517	0.07517	0
ctu1	0.009463	0.009463	0	0.07562	0.07562	0
ctu8	0.3329	0.3329	0	0.1057	0.1057	0
cuBIm	$-8.669 \cdot 10^{-22}$	$-8.537 \cdot 10^{-22}$	0.01512	$1.107 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$2.709 \cdot 10^{-7}$
cuBRe	$-9.053 \cdot 10^{-7}$	$-9.053 \cdot 10^{-7}$	$1.436 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$2.709 \cdot 10^{-7}$
cuGIm	$-1.348 \cdot 10^{-23}$	$-5.56 \cdot 10^{-24}$	0.5875	$1.299 \cdot 10^{-6}$	$1.299 \cdot 10^{-6}$	$3.079 \cdot 10^{-7}$
cuGRe	$-1.159 \cdot 10^{-5}$	$-1.159 \cdot 10^{-5}$	$8.631 \cdot 10^{-8}$	$1.299 \cdot 10^{-6}$	$1.299 \cdot 10^{-6}$	$3.079 \cdot 10^{-7}$
cuHIm	$3.862 \cdot 10^{-23}$	$3.855 \cdot 10^{-23}$	0.001785	$4.676 \cdot 10^{-8}$	$4.676 \cdot 10^{-8}$	$2.78 \cdot 10^{-7}$
cuHRe	$-1.533 \cdot 10^{-6}$	$-1.533 \cdot 10^{-6}$	$1.304 \cdot 10^{-7}$	$4.676 \cdot 10^{-8}$	$4.676 \cdot 10^{-8}$	$2.78 \cdot 10^{-7}$
cuWIm	$5.537 \cdot 10^{-22}$	$5.482 \cdot 10^{-22}$	0.01007	$2.403 \cdot 10^{-7}$	$2.403 \cdot 10^{-7}$	$2.914 \cdot 10^{-7}$
cuWRe	$-1.121 \cdot 10^{-6}$	$-1.121 \cdot 10^{-6}$	$1.783 \cdot 10^{-7}$	$1.892 \cdot 10^{-7}$	$1.892 \cdot 10^{-7}$	$2.642 \cdot 10^{-7}$
sm	0	0	0	0.6421	0.6421	0

1.78  $t\bar{t} \rightarrow d\bar{d}$

interference

square

	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-1.241 \cdot 10^{-5}$	$-1.241 \cdot 10^{-5}$	0	$5.834 \cdot 10^{-7}$	$5.834 \cdot 10^{-7}$	0
cHQ1	-0.0001069	-0.0001069	0	$5.257 \cdot 10^{-6}$	$5.257 \cdot 10^{-6}$	0
cHQ3	$7.483 \cdot 10^{-5}$	$7.483 \cdot 10^{-5}$	0	$4.283 \cdot 10^{-6}$	$4.283 \cdot 10^{-6}$	0
cHWB	$-1.202 \cdot 10^{-6}$	$-1.202 \cdot 10^{-6}$	0	$3.603 \cdot 10^{-5}$	$3.603 \cdot 10^{-5}$	0
cHd	$-9.162 \cdot 10^{-5}$	$-9.162 \cdot 10^{-5}$	0	$5.122 \cdot 10^{-6}$	$5.122 \cdot 10^{-6}$	0
cHj1	0.0001014	0.0001014	0	$5.362 \cdot 10^{-6}$	$5.362 \cdot 10^{-6}$	0
cHj3	0.0001182	0.0001182	0	$5.609 \cdot 10^{-6}$	$5.609 \cdot 10^{-6}$	0
cH1311	-0.001085	-0.001085	0	$5.166 \cdot 10^{-5}$	$5.166 \cdot 10^{-5}$	0
cH1322	-0.00149	-0.00149	0	$7.065 \cdot 10^{-5}$	$7.065 \cdot 10^{-5}$	0
cHt	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	0	$1.054 \cdot 10^{-5}$	$1.054 \cdot 10^{-5}$	0
cQd1	-0.004483	-0.004483	0	0.1987	0.1987	0
cQd8	0.03152	0.03152	0	0.004003	0.004003	0
cQj11	$9.079 \cdot 10^{-5}$	$9.079 \cdot 10^{-5}$	0	0.003801	0.003801	0
cQj18	0.03788	0.03788	0	0.006153	0.006153	0
cQj31	0.01243	0.01243	0	0.06505	0.06505	0
cQj38	-0.07392	-0.07392	0	0.01831	0.01831	0
cQtjd1Im	$-5.788 \cdot 10^{-26}$	$-4.622 \cdot 10^{-26}$	0.2014	$3.601 \cdot 10^{-10}$	$3.601 \cdot 10^{-10}$	$-1.166 \cdot 10^{-6}$
cQtjd1Re	$-7.081 \cdot 10^{-10}$	$-7.081 \cdot 10^{-10}$	$-5.932 \cdot 10^{-7}$	$3.601 \cdot 10^{-10}$	$3.601 \cdot 10^{-10}$	$-1.194 \cdot 10^{-6}$
cQtjd8Im	$3.518 \cdot 10^{-27}$	$6.404 \cdot 10^{-28}$	0.818	$8.001 \cdot 10^{-11}$	$8.001 \cdot 10^{-11}$	$-1.175 \cdot 10^{-6}$
cQtjd8Re	$1.481 \cdot 10^{-11}$	$1.481 \cdot 10^{-11}$	$-5.401 \cdot 10^{-7}$	$8.001 \cdot 10^{-11}$	$8.001 \cdot 10^{-11}$	$-1.175 \cdot 10^{-6}$
cdBIm	$3.937 \cdot 10^{-26}$	$3.996 \cdot 10^{-26}$	-0.015	$1.435 \cdot 10^{-12}$	$1.435 \cdot 10^{-12}$	$-1.185 \cdot 10^{-6}$
cdBRe	$1.081 \cdot 10^{-11}$	$1.081 \cdot 10^{-11}$	$-5.549 \cdot 10^{-7}$	$8.492 \cdot 10^{-13}$	$8.492 \cdot 10^{-13}$	$-1.166 \cdot 10^{-6}$
cdGIm	$2.348 \cdot 10^{-27}$	$1.622 \cdot 10^{-27}$	0.3091	$1.015 \cdot 10^{-11}$	$1.015 \cdot 10^{-11}$	$-1.183 \cdot 10^{-6}$
cdGRe	$-1.567 \cdot 10^{-10}$	$-1.567 \cdot 10^{-10}$	$-5.745 \cdot 10^{-7}$	$2.486 \cdot 10^{-11}$	$2.486 \cdot 10^{-11}$	$-1.167 \cdot 10^{-6}$
cdHIm	$6.129 \cdot 10^{-28}$	$2.623 \cdot 10^{-28}$	0.5721	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	$-1.17 \cdot 10^{-6}$
cdHRe	$-2.094 \cdot 10^{-11}$	$-2.094 \cdot 10^{-11}$	$-5.73 \cdot 10^{-7}$	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	$-1.17 \cdot 10^{-6}$
cdWIm	$1.74 \cdot 10^{-28}$	$-8.407 \cdot 10^{-29}$	1.483	$3.678 \cdot 10^{-12}$	$3.678 \cdot 10^{-12}$	$-1.196 \cdot 10^{-6}$
cdWRe	$-1.283 \cdot 10^{-11}$	$-1.283 \cdot 10^{-11}$	$-5.457 \cdot 10^{-7}$	$1.36 \cdot 10^{-12}$	$1.36 \cdot 10^{-12}$	$-1.176 \cdot 10^{-6}$

cjtQd1Im	$3.727 \cdot 10^{-27}$	$2.94 \cdot 10^{-27}$	0.2111	$2.682 \cdot 10^{-10}$	$2.682 \cdot 10^{-10}$	$-1.193 \cdot 10^{-6}$
cjtQd1Re	$-7.965 \cdot 10^{-11}$	$-7.965 \cdot 10^{-11}$	$-5.901 \cdot 10^{-7}$	$2.16 \cdot 10^{-10}$	$2.16 \cdot 10^{-10}$	$-1.158 \cdot 10^{-6}$
cjtQd8Im	$-4.408 \cdot 10^{-27}$	$-4.929 \cdot 10^{-27}$	-0.1182	$1.01 \cdot 10^{-11}$	$1.01 \cdot 10^{-11}$	$-1.188 \cdot 10^{-6}$
cjtQd8Re	$-4.74 \cdot 10^{-11}$	$-4.74 \cdot 10^{-11}$	$-5.696 \cdot 10^{-7}$	$1.44 \cdot 10^{-12}$	$1.44 \cdot 10^{-12}$	$-1.18 \cdot 10^{-6}$
cll1221	0.0006444	0.0006444	0	$1.53 \cdot 10^{-5}$	$1.53 \cdot 10^{-5}$	0
ctBIm	$-1.459 \cdot 10^{-19}$	$-1.458 \cdot 10^{-19}$	0.0003226	0.0003946	0.0003946	0
ctBRe	0.0002113	0.0002113	0	0.001267	0.001267	0
ctGIm	$5.147 \cdot 10^{-24}$	$5.147 \cdot 10^{-24}$	0	0.03317	0.03317	0
ctGRe	-0.1986	-0.1986	0	0.02582	0.02582	0
ctHIm	$1.972 \cdot 10^{-27}$	$1.972 \cdot 10^{-27}$	0	$7.236 \cdot 10^{-13}$	$7.236 \cdot 10^{-13}$	0
ctHRe	$-2.088 \cdot 10^{-11}$	$-2.088 \cdot 10^{-11}$	0	$6.421 \cdot 10^{-13}$	$6.421 \cdot 10^{-13}$	0
ctWIm	$-2.169 \cdot 10^{-18}$	$-2.169 \cdot 10^{-18}$	0	0.002943	0.002943	0
ctWRe	-0.0001972	-0.0001972	0	0.004181	0.004181	0
ctd1	-0.05004	-0.05004	0	0.8696	0.8696	0
ctd8	0.5922	0.5922	0	0.1932	0.1932	0
ctj1	0.01135	0.01135	0	0.6003	0.6003	0
ctj8	0.1505	0.1505	0	0.04415	0.04415	0
sm	0	0	0	1.03	1.03	0

### 1.79 $t\bar{t} \rightarrow s\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-1.497 \cdot 10^{-5}$	$-1.497 \cdot 10^{-5}$	0	$6.405 \cdot 10^{-7}$	$6.405 \cdot 10^{-7}$	0
cHQ1	-0.0007777	-0.0007777	0	$2.742 \cdot 10^{-5}$	$2.742 \cdot 10^{-5}$	0
cHQ3	0.001196	0.001196	0	$4.174 \cdot 10^{-5}$	$4.174 \cdot 10^{-5}$	0
cHWB	-0.001206	-0.001206	0	$7.686 \cdot 10^{-5}$	$7.686 \cdot 10^{-5}$	0
cHd	$-7.527 \cdot 10^{-5}$	$-7.527 \cdot 10^{-5}$	0	$5.367 \cdot 10^{-6}$	$5.367 \cdot 10^{-6}$	0
cHj1	0.0009627	0.0009627	0	$2.694 \cdot 10^{-5}$	$2.694 \cdot 10^{-5}$	0

cHj3	$5.495 \cdot 10^{-5}$	$5.495 \cdot 10^{-5}$	0	$5.738 \cdot 10^{-6}$	$5.738 \cdot 10^{-6}$	0
cH1311	-0.001226	-0.001226	0	$5.826 \cdot 10^{-5}$	$5.826 \cdot 10^{-5}$	0
cH1322	-0.001694	-0.001694	0	$8.021 \cdot 10^{-5}$	$8.021 \cdot 10^{-5}$	0
cHt	$8.206 \cdot 10^{-5}$	$8.206 \cdot 10^{-5}$	0	$2.917 \cdot 10^{-5}$	$2.917 \cdot 10^{-5}$	0
cQd1	-0.009813	-0.009813	0	0.5796	0.5796	0
cQd8	0.02339	0.02339	0	0.001261	0.001261	0
cQj11	-0.01672	-0.01672	0	0.086	0.086	0
cQj18	0.6065	0.6065	0	0.1981	0.1981	0
cQj31	0.1693	0.1693	0	0.8323	0.8323	0
cQj38	-0.02125	-0.02125	0	0.0005374	0.0005374	0
cQtjd1Im	$-1.429 \cdot 10^{-25}$	$1.149 \cdot 10^{-23}$	81.36	$1.428 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$6.303 \cdot 10^{-7}$
cQtjd1Re	$-2.816 \cdot 10^{-7}$	$-2.816 \cdot 10^{-7}$	$3.196 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$6.303 \cdot 10^{-7}$
cQtjd8Im	$-9.296 \cdot 10^{-25}$	$-9.345 \cdot 10^{-25}$	-0.005169	$3.173 \cdot 10^{-8}$	$3.173 \cdot 10^{-8}$	$6.303 \cdot 10^{-7}$
cQtjd8Re	$-8.983 \cdot 10^{-9}$	$-8.983 \cdot 10^{-9}$	$3.117 \cdot 10^{-7}$	$3.173 \cdot 10^{-8}$	$3.173 \cdot 10^{-8}$	$6.303 \cdot 10^{-7}$
cdBIm	$-5.558 \cdot 10^{-24}$	$-5.077 \cdot 10^{-24}$	0.08654	$3.059 \cdot 10^{-10}$	$3.059 \cdot 10^{-10}$	$6.537 \cdot 10^{-7}$
cdBRe	$-1.191 \cdot 10^{-9}$	$-1.191 \cdot 10^{-9}$	$2.519 \cdot 10^{-7}$	$9.472 \cdot 10^{-10}$	$9.472 \cdot 10^{-10}$	$6.334 \cdot 10^{-7}$
cdGIm	$-7.713 \cdot 10^{-26}$	$-6.459 \cdot 10^{-25}$	-7.375	$1.066 \cdot 10^{-8}$	$1.066 \cdot 10^{-8}$	$6.569 \cdot 10^{-7}$
cdGRe	$-6.213 \cdot 10^{-8}$	$-6.213 \cdot 10^{-8}$	$3.219 \cdot 10^{-7}$	$9.82 \cdot 10^{-9}$	$9.82 \cdot 10^{-9}$	$6.314 \cdot 10^{-7}$
cdHIm	$3.648 \cdot 10^{-25}$	$-5.601 \cdot 10^{-25}$	2.535	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	$6.381 \cdot 10^{-7}$
cdHRe	$-8.275 \cdot 10^{-9}$	$-8.275 \cdot 10^{-9}$	$3.142 \cdot 10^{-7}$	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	$6.381 \cdot 10^{-7}$
cdWIm	$8.254 \cdot 10^{-25}$	$7.647 \cdot 10^{-25}$	0.07359	$2.445 \cdot 10^{-10}$	$2.445 \cdot 10^{-10}$	$6.545 \cdot 10^{-7}$
cdWRe	$3.159 \cdot 10^{-10}$	$3.159 \cdot 10^{-10}$	$3.165 \cdot 10^{-7}$	$1.61 \cdot 10^{-9}$	$1.61 \cdot 10^{-9}$	$6.209 \cdot 10^{-7}$
cjtQd1Im	$1.245 \cdot 10^{-25}$	$5.321 \cdot 10^{-26}$	0.5726	$1.049 \cdot 10^{-9}$	$1.049 \cdot 10^{-9}$	$6.67 \cdot 10^{-7}$
cjtQd1Re	$1.673 \cdot 10^{-8}$	$1.673 \cdot 10^{-8}$	$3.586 \cdot 10^{-7}$	$1.97 \cdot 10^{-9}$	$1.97 \cdot 10^{-9}$	$6.598 \cdot 10^{-7}$
cjtQd8Im	$-4.121 \cdot 10^{-24}$	$-6.861 \cdot 10^{-24}$	-0.6649	$1.709 \cdot 10^{-8}$	$1.709 \cdot 10^{-8}$	$6.438 \cdot 10^{-7}$
cjtQd8Re	$-1.103 \cdot 10^{-8}$	$-1.103 \cdot 10^{-8}$	$3.626 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$6.669 \cdot 10^{-7}$
cl11221	0.0005554	0.0005554	0	$1.321 \cdot 10^{-5}$	$1.321 \cdot 10^{-5}$	0
ctBIm	$-7.194 \cdot 10^{-21}$	$-7.194 \cdot 10^{-21}$	0	0.0001837	0.0001837	0
ctBRe	-0.0001335	-0.0001335	0	0.001023	0.001023	0

ctGIm	$8.187 \cdot 10^{-25}$	$8.187 \cdot 10^{-25}$	0	0.03178	0.03178	0
ctGRe	-0.1986	-0.1986	0	0.0268	0.0268	0
ctHIm	$-2.969 \cdot 10^{-25}$	$-2.969 \cdot 10^{-25}$	0	$2.87 \cdot 10^{-10}$	$2.87 \cdot 10^{-10}$	0
ctHRe	$-8.4 \cdot 10^{-9}$	$-8.4 \cdot 10^{-9}$	0	$2.547 \cdot 10^{-10}$	$2.547 \cdot 10^{-10}$	0
ctWIm	$-5.879 \cdot 10^{-19}$	$-5.879 \cdot 10^{-19}$	0	0.001322	0.001322	0
ctWRe	-0.0002754	-0.0002754	0	0.00434	0.00434	0
ctd1	-0.0004685	-0.0004685	0	0.0008918	0.0008918	0
ctd8	0.02024	0.02024	0	0.0001982	0.0001982	0
ctj1	-0.005701	-0.005701	0	0.01381	0.01381	0
ctj8	0.4013	0.4013	0	0.1288	0.1288	0
sm	0	0	0	0.6704	0.6704	0

## 1.80 $t\bar{t} \rightarrow t\bar{t}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	0.02023	0.02023	0	0.0009	0.0009	0
cHQ1	0.9847	0.9847	0	0.03553	0.03553	0
cHQ3	-0.9857	-0.9857	0	0.03561	0.03561	0
cHWB	0.005076	0.005076	0	$7.45 \cdot 10^{-5}$	$7.45 \cdot 10^{-5}$	0
cHl311	0.942	0.942	0	0.02759	0.02759	0
cHl322	0.04869	0.04869	0	0.003648	0.003648	0
cHt	-0.1476	-0.1476	0	0.0098	0.0098	0
cQQ1	-0.09334	-0.09334	0	1.974	1.974	0
cQQ8	-7.599	-7.599	$-1.316 \cdot 10^{-8}$	2.947	2.947	0
cQt1	-0.2718	-0.2718	0	8.418	8.418	0
cQt8	-7.008	-7.008	0	1.697	1.697	0
cll1221	-0.02156	-0.02156	0	0.0009052	0.0009052	0
ctBIm	$-5.346 \cdot 10^{-17}$	$-5.186 \cdot 10^{-17}$	0.03008	0.03725	0.03725	0

ctBRe	0.3038	0.3038	0	0.1475	0.1475	0
ctGIm	$8.286 \cdot 10^{-17}$	$8.883 \cdot 10^{-17}$	$-0.07201$	0.6186	0.6186	0
ctGRe	-0.1372	-0.1372	0	0.09184	0.09184	0
ctHIm	$-1.083 \cdot 10^{-18}$	$-1.106 \cdot 10^{-18}$	$-0.02085$	0.004922	0.004922	0
ctHRe	0.2077	0.2077	0	0.009518	0.009518	0
ctWIm	$3.097 \cdot 10^{-16}$	$3.097 \cdot 10^{-16}$	$-9.72 \cdot 10^{-6}$	0.5925	0.5925	0
ctWRe	0.02067	0.02067	0	0.01461	0.01461	0
ctt	-46.65	-46.65	0	31.06	31.06	0
sm	0	0	0	0.4729	0.4729	0

### 1.81 $u\bar{d} \rightarrow \mu^+ \nu_\mu$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-4.042 \cdot 10^{-6}$	$-4.042 \cdot 10^{-6}$	0	$8.81 \cdot 10^{-8}$	$8.81 \cdot 10^{-8}$	0
cHWB	$-5.35 \cdot 10^{-6}$	$-5.35 \cdot 10^{-6}$	0	$2.575 \cdot 10^{-7}$	$2.575 \cdot 10^{-7}$	0
cHj3	0.0008194	0.0008194	0	$2.484 \cdot 10^{-5}$	$2.484 \cdot 10^{-5}$	0
cHl311	$-4.605 \cdot 10^{-5}$	$-4.605 \cdot 10^{-5}$	0	$2.008 \cdot 10^{-6}$	$2.008 \cdot 10^{-6}$	0
cHl322	$-6.549 \cdot 10^{-8}$	$-6.549 \cdot 10^{-8}$	0	$8.701 \cdot 10^{-10}$	$8.701 \cdot 10^{-10}$	0
cHudIm	$-5.472 \cdot 10^{-40}$	$1.66 \cdot 10^{-40}$	$1.303$	$3.891 \cdot 10^{-25}$	$3.891 \cdot 10^{-25}$	$-2.673 \cdot 10^{-6}$
cHudRe	$-3.037 \cdot 10^{-24}$	$-3.037 \cdot 10^{-24}$	$-1.35 \cdot 10^{-6}$	$1.315 \cdot 10^{-25}$	$1.315 \cdot 10^{-25}$	$-2.662 \cdot 10^{-6}$
cdWIm	$7.8 \cdot 10^{-28}$	$9.15 \cdot 10^{-28}$	$-0.1731$	$2.726 \cdot 10^{-12}$	$2.726 \cdot 10^{-12}$	$-1.174 \cdot 10^{-6}$
cdWRe	$-3.777 \cdot 10^{-12}$	$-3.777 \cdot 10^{-12}$	$-5.825 \cdot 10^{-7}$	$6.926 \cdot 10^{-13}$	$6.926 \cdot 10^{-13}$	$-1.184 \cdot 10^{-6}$
ceWIm22	$1.453 \cdot 10^{-24}$	$1.453 \cdot 10^{-24}$	0	0.001985	0.001985	0
ceWRe22	$-2.502 \cdot 10^{-6}$	$-2.502 \cdot 10^{-6}$	0	0.003324	0.003324	0
cledjIm22	$1.223 \cdot 10^{-17}$	$1.223 \cdot 10^{-17}$	$-5.723 \cdot 10^{-7}$	$5.996 \cdot 10^{-11}$	$5.996 \cdot 10^{-11}$	$-1.184 \cdot 10^{-6}$
cledjRe22	$-7.276 \cdot 10^{-14}$	$-7.276 \cdot 10^{-14}$	$-5.772 \cdot 10^{-7}$	$5.996 \cdot 10^{-11}$	$5.996 \cdot 10^{-11}$	$-1.168 \cdot 10^{-6}$
cleju1Im22	$-2.593 \cdot 10^{-18}$	$-2.593 \cdot 10^{-18}$	$-7.327 \cdot 10^{-7}$	$1.283 \cdot 10^{-11}$	$1.283 \cdot 10^{-11}$	$-1.481 \cdot 10^{-6}$
cleju1Re22	$1.552 \cdot 10^{-14}$	$1.552 \cdot 10^{-14}$	$-7.089 \cdot 10^{-7}$	$1.283 \cdot 10^{-11}$	$1.283 \cdot 10^{-11}$	$-1.481 \cdot 10^{-6}$

cleju3Im22	$7.424 \cdot 10^{-18}$	$7.424 \cdot 10^{-18}$	$-7.274 \cdot 10^{-7}$	$1.125 \cdot 10^{-10}$	$1.125 \cdot 10^{-10}$	$-1.422 \cdot 10^{-6}$
cleju3Re22	$5.736 \cdot 10^{-14}$	$5.736 \cdot 10^{-14}$	$-7.322 \cdot 10^{-7}$	$1.713 \cdot 10^{-10}$	$1.713 \cdot 10^{-10}$	$-1.401 \cdot 10^{-6}$
clj322	0.0005259	0.0005259	0	0.002485	0.002485	0
cll1221	0.0007436	0.0007436	0	$1.621 \cdot 10^{-5}$	$1.621 \cdot 10^{-5}$	0
cuWIm	$4.638 \cdot 10^{-28}$	$4.642 \cdot 10^{-28}$	$-0.0008504$	$6.623 \cdot 10^{-13}$	$6.623 \cdot 10^{-13}$	$-1.45 \cdot 10^{-6}$
cuWRe	$-5.781 \cdot 10^{-13}$	$-5.781 \cdot 10^{-13}$	$-7.266 \cdot 10^{-7}$	$5.832 \cdot 10^{-13}$	$5.832 \cdot 10^{-13}$	$-1.44 \cdot 10^{-6}$
sm	0	0	0	0.005333	0.005333	0

## 1.82 $u\bar{d} \rightarrow c\bar{s}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.002675	-0.002675	0	$5.832 \cdot 10^{-5}$	$5.832 \cdot 10^{-5}$	0
cHWB	-0.001459	-0.001459	0	$7.024 \cdot 10^{-5}$	$7.024 \cdot 10^{-5}$	0
cHj3	0.007423	0.007423	0	0.00045	0.00045	0
cHl311	-0.0001451	-0.0001451	0	$6.327 \cdot 10^{-6}$	$6.327 \cdot 10^{-6}$	0
cHl322	-0.003541	-0.003541	0	0.0001544	0.0001544	0
cHudIm	$1.315 \cdot 10^{-31}$	$1.424 \cdot 10^{-31}$	$-0.08333$	$2.107 \cdot 10^{-16}$	$2.107 \cdot 10^{-16}$	$9.492 \cdot 10^{-7}$
cHudRe	$-1.249 \cdot 10^{-15}$	$-1.249 \cdot 10^{-15}$	$4.803 \cdot 10^{-7}$	$7.031 \cdot 10^{-17}$	$7.031 \cdot 10^{-17}$	$9.386 \cdot 10^{-7}$
cdWIm	$-4.785 \cdot 10^{-26}$	$-1.627 \cdot 10^{-25}$	$-2.401$	$2.115 \cdot 10^{-9}$	$2.115 \cdot 10^{-9}$	$6.147 \cdot 10^{-7}$
cdWRe	$-2.453 \cdot 10^{-9}$	$-2.453 \cdot 10^{-9}$	$3.261 \cdot 10^{-7}$	$3.691 \cdot 10^{-9}$	$3.691 \cdot 10^{-9}$	$6.503 \cdot 10^{-7}$
cjj31	1.161	1.161	0	10.97	10.97	0
cjj38	$-2.233 \cdot 10^{-8}$	$1.234 \cdot 10^{-17}$	1	1.407	1.407	0
cjujd11Im	$-6.502 \cdot 10^{-19}$	$-6.502 \cdot 10^{-19}$	$-2.922 \cdot 10^{-7}$	$3.45 \cdot 10^{-15}$	$3.45 \cdot 10^{-15}$	$-6.088 \cdot 10^{-7}$
cjujd11Re	$-3.816 \cdot 10^{-15}$	$-3.816 \cdot 10^{-15}$	$-3.145 \cdot 10^{-7}$	$3.317 \cdot 10^{-15}$	$3.317 \cdot 10^{-15}$	$-6.03 \cdot 10^{-7}$
cjujd1Im	$-3.182 \cdot 10^{-18}$	$-3.182 \cdot 10^{-18}$	$-3.142 \cdot 10^{-7}$	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	$-6.053 \cdot 10^{-7}$
cjujd1Re	$-1.905 \cdot 10^{-14}$	$-1.905 \cdot 10^{-14}$	$-3.15 \cdot 10^{-7}$	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	$-6.053 \cdot 10^{-7}$
cjujd81Im	$-6.885 \cdot 10^{-20}$	$-6.885 \cdot 10^{-20}$	$-2.905 \cdot 10^{-7}$	$2.724 \cdot 10^{-18}$	$2.724 \cdot 10^{-18}$	$-5.873 \cdot 10^{-7}$
cjujd81Re	$-4.237 \cdot 10^{-15}$	$-4.237 \cdot 10^{-15}$	$-2.832 \cdot 10^{-7}$	$5.066 \cdot 10^{-16}$	$5.066 \cdot 10^{-16}$	$-5.922 \cdot 10^{-7}$
cjujd8Im	$3.018 \cdot 10^{-34}$	$3.565 \cdot 10^{-32}$	$-117.1$	$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	$-6.105 \cdot 10^{-7}$

cjujd8Re	$1.907 \cdot 10^{-40}$	$-2.73 \cdot 10^{-32}$	$1.432 \cdot 10^8$	$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	$-6.105 \cdot 10^{-7}$
cll1221	0.002524	0.002524	0	$5.502 \cdot 10^{-5}$	$5.502 \cdot 10^{-5}$	0
cuWIm	$-3.53 \cdot 10^{-23}$	$-1.765 \cdot 10^{-23}$	0.4999	$6.69 \cdot 10^{-7}$	$6.69 \cdot 10^{-7}$	$2.691 \cdot 10^{-7}$
cuWRe	$-7.366 \cdot 10^{-7}$	$-7.366 \cdot 10^{-7}$	$1.358 \cdot 10^{-7}$	$3.934 \cdot 10^{-7}$	$3.934 \cdot 10^{-7}$	$2.542 \cdot 10^{-7}$
sm	0	0	0	0.007163	0.007163	0

### 1.83 $u\bar{d} \rightarrow u\bar{d}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	0.0001268	0.0001268	0	$2.385 \cdot 10^{-6}$	$2.385 \cdot 10^{-6}$	0
cHWB	0.01811	0.01811	0	0.0009286	0.0009286	0
cHd	0.0001486	0.0001486	0	$7.274 \cdot 10^{-5}$	$7.274 \cdot 10^{-5}$	0
cHj1	-0.001558	-0.001558	0	0.0001597	0.0001597	0
cHj3	$4.671 \cdot 10^{-5}$	$4.671 \cdot 10^{-5}$	0	$9.143 \cdot 10^{-6}$	$9.143 \cdot 10^{-6}$	0
cHl311	0.03642	0.03642	0	0.00171	0.00171	0
cHl322	0.01477	0.01477	0	0.0004775	0.0004775	0
cHu	0.000203	0.000203	0	$5.07 \cdot 10^{-5}$	$5.07 \cdot 10^{-5}$	0
cHudIm	$-1.17 \cdot 10^{-36}$	$-1.287 \cdot 10^{-36}$	-0.09975	$1.944 \cdot 10^{-24}$	$1.944 \cdot 10^{-24}$	$-2.675 \cdot 10^{-6}$
cHudRe	$-1.542 \cdot 10^{-20}$	$-1.542 \cdot 10^{-20}$	$-1.362 \cdot 10^{-6}$	$2.946 \cdot 10^{-24}$	$2.946 \cdot 10^{-24}$	$-2.682 \cdot 10^{-6}$
cdBIm	$-5.445 \cdot 10^{-26}$	$-5.445 \cdot 10^{-26}$	$1.102 \cdot 10^{-6}$	$7.988 \cdot 10^{-12}$	$7.988 \cdot 10^{-12}$	$-1.177 \cdot 10^{-6}$
cdBRe	$-1.587 \cdot 10^{-11}$	$-1.587 \cdot 10^{-11}$	$-5.672 \cdot 10^{-7}$	$5.721 \cdot 10^{-11}$	$5.721 \cdot 10^{-11}$	$-1.171 \cdot 10^{-6}$
cdGIm	$1.859 \cdot 10^{-28}$	$1.852 \cdot 10^{-28}$	0.003768	$6.284 \cdot 10^{-10}$	$6.284 \cdot 10^{-10}$	$-1.178 \cdot 10^{-6}$
cdGRe	$-1.506 \cdot 10^{-10}$	$-1.506 \cdot 10^{-10}$	$-5.977 \cdot 10^{-7}$	$1.338 \cdot 10^{-10}$	$1.338 \cdot 10^{-10}$	$-1.121 \cdot 10^{-6}$
cdHIm	$8.213 \cdot 10^{-37}$	$7.986 \cdot 10^{-37}$	0.02773	$9.843 \cdot 10^{-23}$	$9.843 \cdot 10^{-23}$	$-1.178 \cdot 10^{-6}$
cdHRe	$-1.938 \cdot 10^{-21}$	$-1.938 \cdot 10^{-21}$	$-5.676 \cdot 10^{-7}$	$9.634 \cdot 10^{-23}$	$9.634 \cdot 10^{-23}$	$-1.173 \cdot 10^{-6}$
cdWIm	$2.272 \cdot 10^{-25}$	$2.307 \cdot 10^{-25}$	-0.01567	$1.489 \cdot 10^{-12}$	$1.489 \cdot 10^{-12}$	$-1.141 \cdot 10^{-6}$
cdWRe	$5.662 \cdot 10^{-10}$	$5.662 \cdot 10^{-10}$	$-5.829 \cdot 10^{-7}$	$8.305 \cdot 10^{-11}$	$8.305 \cdot 10^{-11}$	$-1.168 \cdot 10^{-6}$
cjd1	0.01482	0.01482	0	1	1	0



cjd8	-0.7035	-0.7035	0	0.2222	0.2222	0
cjj11	0.002924	0.002924	0	0.0164	0.0164	0
cjj18	-0.3611	-0.3611	$2.77 \cdot 10^{-8}$	0.1654	0.1654	0
cjj31	-0.07659	-0.07659	0	0.2352	0.2352	0
cjj38	35.29	35.29	$5.667 \cdot 10^{-8}$	4.95	4.95	$8.08 \cdot 10^{-8}$
cju1	-0.04825	-0.04825	0	1	1	0
cju8	-2.816	-2.816	0	0.2222	0.2222	0
cjujd11Im	$7.722 \cdot 10^{-33}$	$7.747 \cdot 10^{-33}$	$-0.003241$	$5.593 \cdot 10^{-20}$	$5.593 \cdot 10^{-20}$	$-2.664 \cdot 10^{-6}$
cjujd11Re	$-1.724 \cdot 10^{-20}$	$-1.724 \cdot 10^{-20}$	$-1.334 \cdot 10^{-6}$	$7.641 \cdot 10^{-20}$	$7.641 \cdot 10^{-20}$	$-2.67 \cdot 10^{-6}$
cjujd1Im	$1.127 \cdot 10^{-33}$	$1.126 \cdot 10^{-33}$	0.0006297	$6.264 \cdot 10^{-20}$	$6.264 \cdot 10^{-20}$	$-2.666 \cdot 10^{-6}$
cjujd1Re	$1.096 \cdot 10^{-20}$	$1.096 \cdot 10^{-20}$	$-1.369 \cdot 10^{-6}$	$1.384 \cdot 10^{-19}$	$1.384 \cdot 10^{-19}$	$-2.673 \cdot 10^{-6}$
cjujd81Im	$-3.668 \cdot 10^{-35}$	$-4.169 \cdot 10^{-35}$	$-0.1365$	$1.541 \cdot 10^{-20}$	$1.541 \cdot 10^{-20}$	$-2.661 \cdot 10^{-6}$
cjujd81Re	$8.151 \cdot 10^{-20}$	$8.151 \cdot 10^{-20}$	$-1.325 \cdot 10^{-6}$	$1.133 \cdot 10^{-20}$	$1.133 \cdot 10^{-20}$	$-2.648 \cdot 10^{-6}$
cjujd8Im	$8.878 \cdot 10^{-36}$	$3.032 \cdot 10^{-36}$	$0.6585$	$1.234 \cdot 10^{-20}$	$1.234 \cdot 10^{-20}$	$-2.675 \cdot 10^{-6}$
cjujd8Re	$2.578 \cdot 10^{-20}$	$2.578 \cdot 10^{-20}$	$-1.319 \cdot 10^{-6}$	$1.174 \cdot 10^{-20}$	$1.174 \cdot 10^{-20}$	$-2.726 \cdot 10^{-6}$
cll1221	-0.001137	-0.001137	0	$1.899 \cdot 10^{-5}$	$1.899 \cdot 10^{-5}$	0
cuBIm	$6.334 \cdot 10^{-27}$	$6.34 \cdot 10^{-27}$	$-0.001057$	$4.489 \cdot 10^{-14}$	$4.489 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
cuBRe	$-8.302 \cdot 10^{-14}$	$-8.302 \cdot 10^{-14}$	$-7.228 \cdot 10^{-7}$	$4.489 \cdot 10^{-14}$	$4.489 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
cuGIm	$-6.249 \cdot 10^{-28}$	$-6.613 \cdot 10^{-28}$	$-0.05816$	$5.611 \cdot 10^{-13}$	$5.611 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
cuGRe	$-3.001 \cdot 10^{-11}$	$-3.001 \cdot 10^{-11}$	$-7.331 \cdot 10^{-7}$	$5.611 \cdot 10^{-13}$	$5.611 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
cuHIm	$-4.723 \cdot 10^{-35}$	$-4.743 \cdot 10^{-35}$	$-0.004302$	$9.378 \cdot 10^{-23}$	$9.378 \cdot 10^{-23}$	$-1.45 \cdot 10^{-6}$
cuHRe	$-1.938 \cdot 10^{-21}$	$-1.938 \cdot 10^{-21}$	$-7.224 \cdot 10^{-7}$	$9.634 \cdot 10^{-23}$	$9.634 \cdot 10^{-23}$	$-1.443 \cdot 10^{-6}$
cuWIm	$2.912 \cdot 10^{-25}$	$2.913 \cdot 10^{-25}$	-0.0004085	$5.596 \cdot 10^{-12}$	$5.596 \cdot 10^{-12}$	$-1.448 \cdot 10^{-6}$
cuWRe	$-7.442 \cdot 10^{-12}$	$-7.442 \cdot 10^{-12}$	$-7.256 \cdot 10^{-7}$	$3.185 \cdot 10^{-13}$	$3.185 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
cud1	0.7821	0.7821	0	0.8793	0.8793	0
cud8	-0.2208	-0.2208	0	0.04209	0.04209	0
sm	0	0	0	8745	8745	0

**1.84**  $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$1.11 \cdot 10^{-5}$	$1.11 \cdot 10^{-5}$	0	$1.525 \cdot 10^{-7}$	$1.525 \cdot 10^{-7}$	0
cHWB	-0.0003131	-0.0003131	0	$1.675 \cdot 10^{-5}$	$1.675 \cdot 10^{-5}$	0
cHj1	-0.0003881	-0.0003881	0	$1.708 \cdot 10^{-5}$	$1.708 \cdot 10^{-5}$	0
cHj3	0.0001606	0.0001606	0	$7.071 \cdot 10^{-6}$	$7.071 \cdot 10^{-6}$	0
cH1111	$-8.203 \cdot 10^{-5}$	$-8.203 \cdot 10^{-5}$	0	$2.487 \cdot 10^{-6}$	$2.487 \cdot 10^{-6}$	0
cH1311	-0.0002038	-0.0002038	0	$4.057 \cdot 10^{-6}$	$4.057 \cdot 10^{-6}$	0
cH1322	-0.0001306	-0.0001306	0	$7.097 \cdot 10^{-6}$	$7.097 \cdot 10^{-6}$	0
cHu	$4.891 \cdot 10^{-5}$	$4.891 \cdot 10^{-5}$	0	$4.76 \cdot 10^{-6}$	$4.76 \cdot 10^{-6}$	0
clj111	0.0005219	0.0005219	0	0.00274	0.00274	0
clj311	0.05443	0.05443	0	0.2858	0.2858	0
cll1221	$5.077 \cdot 10^{-5}$	$5.077 \cdot 10^{-5}$	0	$1.439 \cdot 10^{-6}$	$1.439 \cdot 10^{-6}$	0
clu11	$-6.068 \cdot 10^{-6}$	$-6.068 \cdot 10^{-6}$	0	$7.044 \cdot 10^{-5}$	$7.044 \cdot 10^{-5}$	0
cuBIm	$-5.429 \cdot 10^{-29}$	$-5.429 \cdot 10^{-29}$	$1.262 \cdot 10^{-5}$	$9.532 \cdot 10^{-14}$	$9.532 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
cuBRe	$2.078 \cdot 10^{-14}$	$2.078 \cdot 10^{-14}$	$-7.217 \cdot 10^{-7}$	$9.532 \cdot 10^{-14}$	$9.532 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
cuWIm	$-8.177 \cdot 10^{-29}$	$-8.177 \cdot 10^{-29}$	$4.195 \cdot 10^{-6}$	$1.984 \cdot 10^{-13}$	$1.984 \cdot 10^{-13}$	$-1.461 \cdot 10^{-6}$
cuWRe	$-1.338 \cdot 10^{-13}$	$-1.338 \cdot 10^{-13}$	$-7.472 \cdot 10^{-7}$	$3.292 \cdot 10^{-13}$	$3.293 \cdot 10^{-13}$	$-1.458 \cdot 10^{-6}$
sm	0	0	0	0.002195	0.002195	0

### 1.85 $u\bar{u} \rightarrow c\bar{c}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0003402	-0.0003402	0	$8.068 \cdot 10^{-6}$	$8.068 \cdot 10^{-6}$	0
cHWB	-0.001095	-0.001095	0	$9.711 \cdot 10^{-5}$	$9.711 \cdot 10^{-5}$	0
cHj1	-0.001024	-0.001024	0	$5.687 \cdot 10^{-5}$	$5.687 \cdot 10^{-5}$	0
cHj3	0.0007241	0.0007241	0	$4.267 \cdot 10^{-5}$	$4.267 \cdot 10^{-5}$	0
cH1311	-0.000247	-0.000247	0	$1.216 \cdot 10^{-5}$	$1.216 \cdot 10^{-5}$	0

cHl322	-0.0007758	-0.0007758	0	$3.673 \cdot 10^{-5}$	$3.673 \cdot 10^{-5}$	0
cHu	0.0001118	0.0001118	0	$2.185 \cdot 10^{-5}$	$2.185 \cdot 10^{-5}$	0
cjj11	0.4034	0.4034	0	3.693	3.693	0
cjj18	0.03782	0.03782	0	0.02553	0.02553	0
cjj31	0.1637	0.1637	0	1.499	1.499	0
cjj38	0.01357	0.01357	0	0.009159	0.009159	0
cju1	0.03861	0.03861	0	1.38	1.38	0
cju8	0.1679	0.1679	0	0.05665	0.05665	0
cll1221	0.0004976	0.0004976	0	$1.175 \cdot 10^{-5}$	$1.175 \cdot 10^{-5}$	0
cuBIm	$3.411 \cdot 10^{-24}$	$3.263 \cdot 10^{-24}$	0.04336	$2.94 \cdot 10^{-8}$	$2.94 \cdot 10^{-8}$	$3.062 \cdot 10^{-7}$
cuBRe	$-2.507 \cdot 10^{-7}$	$-2.507 \cdot 10^{-7}$	$1.197 \cdot 10^{-7}$	$2.94 \cdot 10^{-8}$	$2.94 \cdot 10^{-8}$	$2.721 \cdot 10^{-7}$
cuGIm	$1.059 \cdot 10^{-22}$	$1.566 \cdot 10^{-22}$	-0.4792	$2.106 \cdot 10^{-6}$	$2.106 \cdot 10^{-6}$	$2.85 \cdot 10^{-7}$
cuGRe	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	$9.669 \cdot 10^{-8}$	$2.106 \cdot 10^{-6}$	$2.106 \cdot 10^{-6}$	$2.85 \cdot 10^{-7}$
cuHIm	$9.79 \cdot 10^{-34}$	$1.23 \cdot 10^{-33}$	-0.2568	$1.553 \cdot 10^{-17}$	$1.553 \cdot 10^{-17}$	$-5.794 \cdot 10^{-7}$
cuHRe	$-5.091 \cdot 10^{-16}$	$-5.091 \cdot 10^{-16}$	$-2.947 \cdot 10^{-7}$	$3.107 \cdot 10^{-17}$	$3.107 \cdot 10^{-17}$	$-5.794 \cdot 10^{-7}$
cuWIm	$-4.446 \cdot 10^{-24}$	$3.838 \cdot 10^{-25}$	1.086	$3.16 \cdot 10^{-7}$	$3.16 \cdot 10^{-7}$	$2.848 \cdot 10^{-7}$
cuWRe	$-2.776 \cdot 10^{-7}$	$-2.776 \cdot 10^{-7}$	$1.441 \cdot 10^{-7}$	$3.4 \cdot 10^{-7}$	$3.4 \cdot 10^{-7}$	$2.647 \cdot 10^{-7}$
cuu1	0.2107	0.2107	0	3.693	3.693	0
cuu8	0.3937	0.3937	$-2.54 \cdot 10^{-8}$	0.2657	0.2657	0
sm	0	0	0	0.5504	0.5504	0

## 1.86 $u\bar{u} \rightarrow u\bar{u}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	0.02165	0.02165	0	0.0004055	0.0004055	0
cHWB	0.02046	0.02046	0	0.00167	0.00167	0
cHj1	0.02917	0.02917	0	0.000469	0.000469	0
cHj3	-0.08805	-0.08805	0	0.007282	0.007282	0

ch1311	0.02874	0.02874	0	0.0005511	0.0005511	0
ch1322	0.005304	0.005304	0	$4.289 \cdot 10^{-5}$	$4.289 \cdot 10^{-5}$	0
chU	-0.08705	-0.08705	0	0.005673	0.005673	0
cjj11	-25.04	-25.04	0	8.748	8.748	0
cjj18	-0.34	-0.34	0	0.3339	0.3339	$-2.995 \cdot 10^{-8}$
cjj31	-10.48	-10.48	0	7.303	7.303	0
cjj38	-0.1178	-0.1178	$-1.698 \cdot 10^{-7}$	0.1934	0.1934	$-2.069 \cdot 10^{-7}$
cju1	-0.1134	-0.1134	0	2.44	2.44	0
cju8	-3.537	-3.537	0	0.5006	0.5006	0
cl11221	-0.002754	-0.002754	0	$1.123 \cdot 10^{-5}$	$1.123 \cdot 10^{-5}$	0
cuBIm	$-1.349 \cdot 10^{-27}$	$-2.507 \cdot 10^{-27}$	-0.8579	$4.583 \cdot 10^{-11}$	$4.583 \cdot 10^{-11}$	$-1.44 \cdot 10^{-6}$
cuBRe	$1.893 \cdot 10^{-10}$	$1.893 \cdot 10^{-10}$	$-7.395 \cdot 10^{-7}$	$4.583 \cdot 10^{-11}$	$4.583 \cdot 10^{-11}$	$-1.44 \cdot 10^{-6}$
cuGIm	$9.612 \cdot 10^{-27}$	$3.088 \cdot 10^{-26}$	-2.213	$3.57 \cdot 10^{-10}$	$3.57 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$
cuGRe	$-2.575 \cdot 10^{-10}$	$-2.575 \cdot 10^{-10}$	$-7.377 \cdot 10^{-7}$	$3.57 \cdot 10^{-10}$	$3.57 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$
cuHIm	$3.28 \cdot 10^{-28}$	$3.917 \cdot 10^{-29}$	0.8806	$1.149 \cdot 10^{-22}$	$1.149 \cdot 10^{-22}$	$-1.479 \cdot 10^{-6}$
cuHRe	$1.821 \cdot 10^{-10}$	$1.821 \cdot 10^{-10}$	$-7.141 \cdot 10^{-7}$	$1.719 \cdot 10^{-22}$	$1.719 \cdot 10^{-22}$	$-1.454 \cdot 10^{-6}$
cuWIm	$-2.062 \cdot 10^{-26}$	$-2.103 \cdot 10^{-26}$	-0.01949	$1.173 \cdot 10^{-11}$	$1.173 \cdot 10^{-11}$	$-1.449 \cdot 10^{-6}$
cuWRe	$1.688 \cdot 10^{-10}$	$1.688 \cdot 10^{-10}$	$-7.109 \cdot 10^{-7}$	$6.056 \cdot 10^{-11}$	$6.056 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$
cuu1	-23.07	-23.07	0	8.748	8.748	0
cuu8	-5.945	-5.945	$-8.41 \cdot 10^{-8}$	0.9298	0.9298	$-1.936 \cdot 10^{-7}$
sm	0	0	0	25.62	25.62	0

### 1.87 $zz \rightarrow W^+W^-$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
chB	-0.03266	-0.03266	0	0.04879	0.04879	0
chBtil	$5.504 \cdot 10^{-17}$	$5.504 \cdot 10^{-17}$	0	0.04879	0.04879	0
chDD	-3.726	-3.726	0	0.08927	0.08927	0

cHW	-0.4019	-0.4019	0	1.421	1.421	0
cHWB	-4.43	-4.43	0	0.416	0.416	0
cHWBtil	$-5.546 \cdot 10^{-16}$	$-5.546 \cdot 10^{-16}$	0	0.171	0.171	0
cHWtil	$1.304 \cdot 10^{-14}$	$1.304 \cdot 10^{-14}$	0	1.42	1.42	0
cHl311	-7.981	-7.981	0	0.3856	0.3856	0
cHl322	-934.3	-934.3	0	53.08	53.08	0
cW	-0.02526	-0.02526	0	15.43	15.43	0
cWtil	$3.41 \cdot 10^{-14}$	$3.454 \cdot 10^{-14}$	-0.01264	15.32	15.32	0
c111221	3.132	3.132	0	0.07123	0.07123	0
sm	0	0	0	33.13	33.13	0

## 1.88 $zz \rightarrow zz$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	0.001738	0.001738	0	0.09221	0.09221	0
cHBtil	$6.881 \cdot 10^{-18}$	$6.881 \cdot 10^{-18}$	0	0.07807	0.07807	0
cHDD	0.004934	0.004934	0	$7.479 \cdot 10^{-5}$	$7.479 \cdot 10^{-5}$	0
cHW	0.005971	0.005971	0	0.8512	0.8512	0
cHWB	0.003298	0.003298	0	0.2566	0.2566	0
cHWBtil	$2.862 \cdot 10^{-17}$	$2.862 \cdot 10^{-17}$	0	0.2503	0.2503	0
cHWtil	$-1.153 \cdot 10^{-17}$	$-1.153 \cdot 10^{-17}$	0	0.8223	0.8223	0
cHl311	-0.009172	-0.009172	0	0.000278	0.000278	0
cHl322	-0.009888	-0.009888	0	0.0002997	0.0002997	0
c111221	0.004602	0.004602	0	$6.974 \cdot 10^{-5}$	$6.974 \cdot 10^{-5}$	0
sm	0	0	0	0.07706	0.07706	0

## 2 By parameter point

### 2.1 cG

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow gg$	$8.548 \cdot 10^{-10}$	$8.548 \cdot 10^{-10}$	$-3.276 \cdot 10^{-7}$	101.1	101.1	0
$gg \rightarrow ggg$	-0.007337	-0.007337	0	0.03177	0.03177	0
$gg \rightarrow t\bar{t}$	-0.01184	-0.01184	0	2.384	2.384	0
$gg \rightarrow u\bar{u}$	$-9.299 \cdot 10^{-11}$	$-9.299 \cdot 10^{-11}$	0	0.8092	0.8092	0

### 2.2 cGtil

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow gg$	$3.195 \cdot 10^{-16}$	$2.867 \cdot 10^{-16}$	$0.1027$	91.29	91.29	0
$gg \rightarrow ggg$	-0.00402	-0.00402	0	0.02475	0.02475	0
$gg \rightarrow t\bar{t}$	$-1.054 \cdot 10^{-17}$	$-1.054 \cdot 10^{-17}$	0	2.5	2.5	0
$gg \rightarrow u\bar{u}$	$-3.662 \cdot 10^{-17}$	$-3.662 \cdot 10^{-17}$	0	0.6964	0.6964	0

### 2.3 cH

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow HH$	-1.379	-1.379	0	2.16	2.16	0
$HH \rightarrow HHH$	$9.181 \cdot 10^{-6}$	$9.181 \cdot 10^{-6}$	0	$4.413 \cdot 10^{-5}$	$4.413 \cdot 10^{-5}$	0
$HH \rightarrow H\tau^+\tau^-$	$-5.289 \cdot 10^{-9}$	$-5.289 \cdot 10^{-9}$	0	$8.538 \cdot 10^{-9}$	$8.538 \cdot 10^{-9}$	0
$HH \rightarrow Hb\bar{b}$	$-3.931 \cdot 10^{-9}$	$-3.931 \cdot 10^{-9}$	0	$9.686 \cdot 10^{-9}$	$9.686 \cdot 10^{-9}$	0
$HH \rightarrow Hs\bar{s}$	$1.278 \cdot 10^{-12}$	$1.278 \cdot 10^{-12}$	0	$4.733 \cdot 10^{-12}$	$4.733 \cdot 10^{-12}$	0

$HH \rightarrow Ht\bar{t}$	$4.932 \cdot 10^{-5}$	$4.932 \cdot 10^{-5}$	0	$1.877 \cdot 10^{-5}$	$1.877 \cdot 10^{-5}$	0
$HH \rightarrow Hu\bar{u}$	$-3.669 \cdot 10^{-16}$	$-3.669 \cdot 10^{-16}$	0	$1.849 \cdot 10^{-15}$	$1.849 \cdot 10^{-15}$	0
$HH \rightarrow Hzz$	$-8.866 \cdot 10^{-6}$	$-8.866 \cdot 10^{-6}$	0	$3.155 \cdot 10^{-5}$	$3.155 \cdot 10^{-5}$	0
$HH \rightarrow W^+W^-$	0.722	0.722	0	0.1331	0.1331	0
$HH \rightarrow W^+W^-\gamma$	$-2.338 \cdot 10^{-7}$	$-2.338 \cdot 10^{-7}$	0	$1.17 \cdot 10^{-7}$	$1.17 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	$8.019 \cdot 10^{-6}$	$8.019 \cdot 10^{-6}$	0	$1.322 \cdot 10^{-6}$	$1.322 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$2.009 \cdot 10^{-7}$	$2.009 \cdot 10^{-7}$	0	$2.063 \cdot 10^{-8}$	$2.063 \cdot 10^{-8}$	0
$HH \rightarrow W^-u\bar{d}$	$1.118 \cdot 10^{-8}$	$1.118 \cdot 10^{-8}$	0	$5.316 \cdot 10^{-10}$	$5.316 \cdot 10^{-10}$	0
$HH \rightarrow z\bar{b}b$	$-7.856 \cdot 10^{-9}$	$-7.856 \cdot 10^{-9}$	0	$3.793 \cdot 10^{-9}$	$3.793 \cdot 10^{-9}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$1.655 \cdot 10^{-7}$	$1.655 \cdot 10^{-7}$	0	$1.083 \cdot 10^{-8}$	$1.083 \cdot 10^{-8}$	0
$HH \rightarrow zcc$	$9.838 \cdot 10^{-10}$	$9.838 \cdot 10^{-10}$	0	$2.061 \cdot 10^{-10}$	$2.061 \cdot 10^{-10}$	0
$HH \rightarrow zdd$	$3.144 \cdot 10^{-9}$	$3.144 \cdot 10^{-9}$	0	$4.944 \cdot 10^{-10}$	$4.944 \cdot 10^{-10}$	0
$HH \rightarrow ze^+e^-$	$1.659 \cdot 10^{-9}$	$1.659 \cdot 10^{-9}$	0	$5.709 \cdot 10^{-10}$	$5.709 \cdot 10^{-10}$	0
$HH \rightarrow zt\bar{t}$	$-4.168 \cdot 10^{-6}$	$-4.168 \cdot 10^{-6}$	0	$3.241 \cdot 10^{-7}$	$3.241 \cdot 10^{-7}$	0
$HH \rightarrow zz$	0.5543	0.5543	0	0.06606	0.06606	0
$W^+W^- \rightarrow Hb\bar{b}$	$1.244 \cdot 10^{-9}$	$1.244 \cdot 10^{-9}$	0	$3.581 \cdot 10^{-11}$	$3.581 \cdot 10^{-11}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-3.362 \cdot 10^{-12}$	$-3.362 \cdot 10^{-12}$	0	$5.228 \cdot 10^{-12}$	$5.228 \cdot 10^{-12}$	0
$W^+W^- \rightarrow Hdd$	$2.758 \cdot 10^{-15}$	$2.758 \cdot 10^{-15}$	0	$7.119 \cdot 10^{-16}$	$7.119 \cdot 10^{-16}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$3.02 \cdot 10^{-7}$	$3.02 \cdot 10^{-7}$	0	$1.068 \cdot 10^{-7}$	$1.068 \cdot 10^{-7}$	0

## 2.4 cHB

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$7.29 \cdot 10^{-7}$	$7.29 \cdot 10^{-7}$	0	$1.043 \cdot 10^{-6}$	$1.043 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-\gamma$	$1.603 \cdot 10^{-7}$	$1.603 \cdot 10^{-7}$	0	$1.512 \cdot 10^{-7}$	$1.512 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$6.846 \cdot 10^{-8}$	$6.846 \cdot 10^{-8}$	0	$6.376 \cdot 10^{-8}$	$6.376 \cdot 10^{-8}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$9.902 \cdot 10^{-8}$	$9.902 \cdot 10^{-8}$	0	$5.981 \cdot 10^{-8}$	$5.981 \cdot 10^{-8}$	0
$HH \rightarrow zcc$	$2.864 \cdot 10^{-8}$	$2.864 \cdot 10^{-8}$	0	$2.018 \cdot 10^{-7}$	$2.018 \cdot 10^{-7}$	0

$HH \rightarrow z d \bar{d}$	$4.076 \cdot 10^{-8}$	$4.076 \cdot 10^{-8}$	0	$7.298 \cdot 10^{-8}$	$7.298 \cdot 10^{-8}$	0
$HH \rightarrow z e^+ e^-$	$8.426 \cdot 10^{-8}$	$8.426 \cdot 10^{-8}$	0	$8.938 \cdot 10^{-7}$	$8.938 \cdot 10^{-7}$	0
$HH \rightarrow z t \bar{t}$	$-2.187 \cdot 10^{-6}$	$-2.187 \cdot 10^{-6}$	0	$2.949 \cdot 10^{-7}$	$2.949 \cdot 10^{-7}$	0
$HH \rightarrow z z$	0.01886	0.01886	0	0.2275	0.2275	0
$HW^+ \rightarrow \gamma t \bar{b}$	$2.097 \cdot 10^{-7}$	$2.097 \cdot 10^{-7}$	0	$6.398 \cdot 10^{-8}$	$6.398 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$-1.884 \cdot 10^{-8}$	$-1.884 \cdot 10^{-8}$	0	$2.028 \cdot 10^{-9}$	$2.028 \cdot 10^{-9}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$2.942 \cdot 10^{-9}$	$2.942 \cdot 10^{-9}$	0	$2.371 \cdot 10^{-8}$	$2.371 \cdot 10^{-8}$	0
$H\gamma \rightarrow b \bar{b}$	$-2.592 \cdot 10^{-6}$	$-2.592 \cdot 10^{-6}$	0	0.006855	0.006855	0
$H\gamma \rightarrow c \bar{c}$	$-4.794 \cdot 10^{-6}$	$-4.794 \cdot 10^{-6}$	0	0.02589	0.02589	0
$H\gamma \rightarrow d \bar{d}$	$-5.333 \cdot 10^{-12}$	$-5.333 \cdot 10^{-12}$	0	0.007466	0.007466	0
$H\gamma \rightarrow e^+ e^-$	$-2.131 \cdot 10^{-15}$	$-2.131 \cdot 10^{-15}$	0	0.01496	0.01496	0
$H\gamma \rightarrow t \bar{t}$	-0.03095	-0.03095	0	0.02119	0.02119	0
$H z \rightarrow \mu^+ \mu^-$	0.0003412	0.0003412	0	0.003556	0.003556	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	0.001219	0.001219	0	0.001038	0.001038	0
$H z \rightarrow b \bar{b}$	0.0008637	0.0008637	0	0.001059	0.001059	0
$H z \rightarrow s \bar{s}$	0.001287	0.001287	0	0.00156	0.00156	0
$H z \rightarrow t \bar{t}$	-0.01381	-0.01381	0	0.00557	0.00557	0
$H z \rightarrow u \bar{u}$	0.0006007	0.0006007	0	0.005038	0.005038	0
$W^+ W^- \rightarrow H b \bar{b}$	$-2.788 \cdot 10^{-8}$	$-2.788 \cdot 10^{-8}$	0	$1.422 \cdot 10^{-10}$	$1.422 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$5.697 \cdot 10^{-9}$	$5.697 \cdot 10^{-9}$	0	$7.081 \cdot 10^{-10}$	$7.081 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-2.19 \cdot 10^{-8}$	$-2.19 \cdot 10^{-8}$	0	$2.45 \cdot 10^{-10}$	$2.45 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-6.345 \cdot 10^{-9}$	$-6.345 \cdot 10^{-9}$	0	$1.023 \cdot 10^{-9}$	$1.023 \cdot 10^{-9}$	0
$W^+ W^- \rightarrow \gamma \gamma$	-0.04689	-0.04689	0	0.2695	0.2695	0
$W^+ W^- \rightarrow \gamma \gamma \gamma$	$1.924 \cdot 10^{-8}$	$1.924 \cdot 10^{-8}$	0	$4.07 \cdot 10^{-8}$	$4.07 \cdot 10^{-8}$	0
$\gamma W^+ \rightarrow z W^+$	0.006812	0.006812	0	0.224	0.224	0
$b \bar{b} \rightarrow \gamma \gamma$	$-7.738 \cdot 10^{-7}$	$-7.738 \cdot 10^{-7}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0
$z z \rightarrow W^+ W^-$	-0.03266	-0.03266	0	0.04879	0.04879	0
$z z \rightarrow z z$	0.001738	0.001738	0	0.09221	0.09221	0



## 2.5 cHBtil

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$7.864 \cdot 10^{-7}$	$7.864 \cdot 10^{-7}$	0	$1.036 \cdot 10^{-7}$	$1.036 \cdot 10^{-7}$	0
$HH \rightarrow W^+W^-\gamma$	$-8.437 \cdot 10^{-8}$	$-8.437 \cdot 10^{-8}$	0	$2.624 \cdot 10^{-7}$	$2.624 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$-2.394 \cdot 10^{-9}$	$-2.394 \cdot 10^{-9}$	0	$6.368 \cdot 10^{-8}$	$6.368 \cdot 10^{-8}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$4.652 \cdot 10^{-8}$	$4.652 \cdot 10^{-8}$	0	$4.663 \cdot 10^{-8}$	$4.663 \cdot 10^{-8}$	0
$HH \rightarrow zcc\bar{c}$	$-1.36 \cdot 10^{-8}$	$-1.36 \cdot 10^{-8}$	0	$1.496 \cdot 10^{-8}$	$1.496 \cdot 10^{-8}$	0
$HH \rightarrow zdd\bar{d}$	$1.75 \cdot 10^{-7}$	$1.75 \cdot 10^{-7}$	0	$3.396 \cdot 10^{-6}$	$3.396 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$-1.052 \cdot 10^{-9}$	$-1.052 \cdot 10^{-9}$	0	$2.871 \cdot 10^{-8}$	$2.871 \cdot 10^{-8}$	0
$HH \rightarrow zt\bar{t}$	$-4.653 \cdot 10^{-7}$	$-4.653 \cdot 10^{-7}$	0	$1.758 \cdot 10^{-7}$	$1.758 \cdot 10^{-7}$	0
$HH \rightarrow zz$	$8.949 \cdot 10^{-17}$	$8.949 \cdot 10^{-17}$	0	0.2047	0.2047	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-6.626 \cdot 10^{-7}$	$-6.626 \cdot 10^{-7}$	0	$1.872 \cdot 10^{-7}$	$1.872 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$5.953 \cdot 10^{-10}$	$5.953 \cdot 10^{-10}$	0	$3.496 \cdot 10^{-9}$	$3.496 \cdot 10^{-9}$	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$8.056 \cdot 10^{-9}$	$8.056 \cdot 10^{-9}$	0	$2.207 \cdot 10^{-8}$	$2.207 \cdot 10^{-8}$	0
$H\gamma \rightarrow b\bar{b}$	$-1.706 \cdot 10^{-9}$	$-1.706 \cdot 10^{-9}$	0	0.005971	0.005971	0
$H\gamma \rightarrow c\bar{c}$	$-2.971 \cdot 10^{-9}$	$-2.971 \cdot 10^{-9}$	0	0.03077	0.03077	0
$H\gamma \rightarrow d\bar{d}$	$7.89 \cdot 10^{-15}$	$7.89 \cdot 10^{-15}$	0	0.008073	0.008073	0
$H\gamma \rightarrow e^+e^-$	$2.333 \cdot 10^{-17}$	$2.333 \cdot 10^{-17}$	0	0.0174	0.0174	0
$H\gamma \rightarrow t\bar{t}$	$-6.74 \cdot 10^{-6}$	$-6.74 \cdot 10^{-6}$	0	0.01844	0.01844	0
$H z \rightarrow \mu^+\mu^-$	$2.662 \cdot 10^{-7}$	$2.662 \cdot 10^{-7}$	0	0.003874	0.003874	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	$3.162 \cdot 10^{-20}$	$3.162 \cdot 10^{-20}$	0	0.0008615	0.0008615	0
$H z \rightarrow b\bar{b}$	$1.614 \cdot 10^{-7}$	$1.614 \cdot 10^{-7}$	0	0.001126	0.001126	0
$H z \rightarrow s\bar{s}$	$2.967 \cdot 10^{-7}$	$2.967 \cdot 10^{-7}$	0	0.001373	0.001373	0
$H z \rightarrow t\bar{t}$	-0.0003533	-0.0003533	0	0.008091	0.008091	0
$H z \rightarrow u\bar{u}$	$-7.379 \cdot 10^{-7}$	$-7.379 \cdot 10^{-7}$	0	0.005274	0.005274	0
$W^+W^- \rightarrow Hb\bar{b}$	$-6.648 \cdot 10^{-9}$	$-6.648 \cdot 10^{-9}$	0	$7.237 \cdot 10^{-11}$	$7.237 \cdot 10^{-11}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-8.818 \cdot 10^{-10}$	$-8.818 \cdot 10^{-10}$	0	$5.416 \cdot 10^{-11}$	$5.416 \cdot 10^{-11}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$5.011 \cdot 10^{-10}$	$5.011 \cdot 10^{-10}$	0	$2.095 \cdot 10^{-12}$	$2.095 \cdot 10^{-12}$	0

$W^+W^- \rightarrow Ht\bar{t}$	$-9.617 \cdot 10^{-11}$	$-9.617 \cdot 10^{-11}$	0	$3.441 \cdot 10^{-12}$	$3.441 \cdot 10^{-12}$	0
$W^+W^- \rightarrow \gamma\gamma$	$-5.214 \cdot 10^{-17}$	$-5.214 \cdot 10^{-17}$	0	0.2695	0.2695	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$1.128 \cdot 10^{-8}$	$1.128 \cdot 10^{-8}$	0	$2.888 \cdot 10^{-7}$	$2.888 \cdot 10^{-7}$	0
$\gamma W^+ \rightarrow zW^+$	$5.023 \cdot 10^{-18}$	$5.023 \cdot 10^{-18}$	0	0.0007775	0.0007775	0
$b\bar{b} \rightarrow \gamma\gamma$	$-1.199 \cdot 10^{-23}$	$-1.199 \cdot 10^{-23}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0
$zz \rightarrow W^+W^-$	$5.504 \cdot 10^{-17}$	$5.504 \cdot 10^{-17}$	0	0.04879	0.04879	0
$zz \rightarrow zz$	$6.881 \cdot 10^{-18}$	$6.881 \cdot 10^{-18}$	0	0.07807	0.07807	0

## 2.6 cHDD

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	-0.09061	-0.09061	0	0.01348	0.01348	0
$HH \rightarrow HHH$	$4.069 \cdot 10^{-7}$	$4.069 \cdot 10^{-7}$	0	$4.829 \cdot 10^{-7}$	$4.829 \cdot 10^{-7}$	0
$HH \rightarrow H\tau^+\tau^-$	$-9.068 \cdot 10^{-11}$	$-9.068 \cdot 10^{-11}$	0	$2.517 \cdot 10^{-11}$	$2.517 \cdot 10^{-11}$	0
$HH \rightarrow Hb\bar{b}$	$-2.493 \cdot 10^{-9}$	$-2.493 \cdot 10^{-9}$	0	$5.631 \cdot 10^{-10}$	$5.631 \cdot 10^{-10}$	0
$HH \rightarrow Hs\bar{s}$	$-2.623 \cdot 10^{-12}$	$-2.623 \cdot 10^{-12}$	0	$4.964 \cdot 10^{-13}$	$4.964 \cdot 10^{-13}$	0
$HH \rightarrow Ht\bar{t}$	$3.821 \cdot 10^{-6}$	$3.821 \cdot 10^{-6}$	0	$3.627 \cdot 10^{-7}$	$3.627 \cdot 10^{-7}$	0
$HH \rightarrow Hu\bar{u}$	$-1.092 \cdot 10^{-13}$	$-1.092 \cdot 10^{-13}$	0	$1.836 \cdot 10^{-14}$	$1.836 \cdot 10^{-14}$	0
$HH \rightarrow Hzz$	$2.022 \cdot 10^{-6}$	$2.022 \cdot 10^{-6}$	0	$1.515 \cdot 10^{-6}$	$1.515 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	-0.5819	-0.5819	0	0.1223	0.1223	0
$HH \rightarrow W^+W^-\gamma$	$-2.257 \cdot 10^{-6}$	$-2.257 \cdot 10^{-6}$	0	$6.59 \cdot 10^{-7}$	$6.59 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	-0.002013	-0.002013	0	0.0001866	0.0001866	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-4.6 \cdot 10^{-5}$	$-4.6 \cdot 10^{-5}$	0	$8.803 \cdot 10^{-6}$	$8.803 \cdot 10^{-6}$	0
$HH \rightarrow W^-u\bar{d}$	$-1.958 \cdot 10^{-7}$	$-1.958 \cdot 10^{-7}$	0	$2.667 \cdot 10^{-8}$	$2.667 \cdot 10^{-8}$	0
$HH \rightarrow z\bar{b}b$	-0.0001204	-0.0001204	0	$2.834 \cdot 10^{-5}$	$2.834 \cdot 10^{-5}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-5.847 \cdot 10^{-9}$	$-5.847 \cdot 10^{-9}$	0	$1.149 \cdot 10^{-9}$	$1.149 \cdot 10^{-9}$	0
$HH \rightarrow zc\bar{c}$	$2.801 \cdot 10^{-9}$	$2.801 \cdot 10^{-9}$	0	$3.188 \cdot 10^{-9}$	$3.188 \cdot 10^{-9}$	0
$HH \rightarrow zd\bar{d}$	$-4.604 \cdot 10^{-9}$	$-4.604 \cdot 10^{-9}$	0	$7.737 \cdot 10^{-10}$	$7.737 \cdot 10^{-10}$	0

$HH \rightarrow ze^+e^-$	$-6.233 \cdot 10^{-11}$	$-6.233 \cdot 10^{-11}$	0	$3.88 \cdot 10^{-10}$	$3.88 \cdot 10^{-10}$	0
$HH \rightarrow zt\bar{t}$	$-1.577 \cdot 10^{-5}$	$-1.577 \cdot 10^{-5}$	0	$1.579 \cdot 10^{-5}$	$1.579 \cdot 10^{-5}$	0
$HH \rightarrow zz$	-0.3553	-0.3553	0	0.4426	0.4426	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-1.317 \cdot 10^{-6}$	$-1.317 \cdot 10^{-6}$	0	$7.413 \cdot 10^{-8}$	$7.413 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-6.376 \cdot 10^{-6}$	$-6.376 \cdot 10^{-6}$	0	$2.568 \cdot 10^{-7}$	$2.568 \cdot 10^{-7}$	0
$HW^+ \rightarrow u\bar{d}$	-0.001603	-0.001603	0	$6.455 \cdot 10^{-5}$	$6.455 \cdot 10^{-5}$	0
$HW^- \rightarrow \bar{t}b$	-0.2778	-0.2778	0	0.04323	0.04323	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-2.398 \cdot 10^{-9}$	$-2.398 \cdot 10^{-9}$	0	$9.658 \cdot 10^{-11}$	$9.658 \cdot 10^{-11}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	-0.0004814	-0.0004814	0	$1.939 \cdot 10^{-5}$	$1.939 \cdot 10^{-5}$	0
$H\gamma \rightarrow b\bar{b}$	$-2.306 \cdot 10^{-6}$	$-2.306 \cdot 10^{-6}$	0	$1.747 \cdot 10^{-8}$	$1.747 \cdot 10^{-8}$	0
$H\gamma \rightarrow c\bar{c}$	$-9.948 \cdot 10^{-7}$	$-9.948 \cdot 10^{-7}$	0	$7.539 \cdot 10^{-9}$	$7.539 \cdot 10^{-9}$	0
$H\gamma \rightarrow d\bar{d}$	$-1.225 \cdot 10^{-10}$	$-1.225 \cdot 10^{-10}$	0	$9.287 \cdot 10^{-13}$	$9.287 \cdot 10^{-13}$	0
$H\gamma \rightarrow e^+e^-$	$-1.553 \cdot 10^{-13}$	$-1.553 \cdot 10^{-13}$	0	$1.177 \cdot 10^{-15}$	$1.177 \cdot 10^{-15}$	0
$H\gamma \rightarrow t\bar{t}$	-0.03301	-0.03301	0	0.0002501	0.0002501	0
$HZ \rightarrow \mu^+\mu^-$	$-6.533 \cdot 10^{-6}$	$-6.533 \cdot 10^{-6}$	0	$2.025 \cdot 10^{-6}$	$2.025 \cdot 10^{-6}$	0
$HZ \rightarrow \nu_\tau\bar{\nu}_\tau$	$1.583 \cdot 10^{-18}$	$1.583 \cdot 10^{-18}$	0	$1.017 \cdot 10^{-34}$	$1.017 \cdot 10^{-34}$	0
$HZ \rightarrow b\bar{b}$	-0.0001053	-0.0001053	0	$1.03 \cdot 10^{-5}$	$1.03 \cdot 10^{-5}$	0
$HZ \rightarrow s\bar{s}$	$-8.285 \cdot 10^{-5}$	$-8.285 \cdot 10^{-5}$	0	$8.213 \cdot 10^{-7}$	$8.213 \cdot 10^{-7}$	0
$HZ \rightarrow t\bar{t}$	-0.1262	-0.1262	0	0.01168	0.01168	0
$HZ \rightarrow u\bar{u}$	-0.0001168	-0.0001168	0	$4.205 \cdot 10^{-6}$	$4.205 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$-2.49 \cdot 10^{-6}$	$-2.49 \cdot 10^{-6}$	0	$2.782 \cdot 10^{-7}$	$2.782 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-2.653 \cdot 10^{-5}$	$-2.653 \cdot 10^{-5}$	0	$2.12 \cdot 10^{-6}$	$2.12 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-2.898 \cdot 10^{-7}$	$-2.898 \cdot 10^{-7}$	0	$1.905 \cdot 10^{-8}$	$1.905 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-1.87 \cdot 10^{-5}$	$-1.87 \cdot 10^{-5}$	0	$1.949 \cdot 10^{-6}$	$1.949 \cdot 10^{-6}$	0
$W^+W^- \rightarrow W^+W^-$	-13.66	-13.66	0	0.7194	0.7194	0
$\bar{b}t \rightarrow \bar{d}u$	-0.003641	-0.003641	0	$7.938 \cdot 10^{-5}$	$7.938 \cdot 10^{-5}$	0
$\gamma W^+ \rightarrow zW^+$	-0.03286	-0.03286	0	0.0004673	0.0004673	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$5.316 \cdot 10^{-5}$	$5.316 \cdot 10^{-5}$	0	$2.434 \cdot 10^{-6}$	$2.434 \cdot 10^{-6}$	0
$\nu_\tau\bar{\nu}_\tau \rightarrow \nu_\tau\bar{\nu}_\tau$	-2.931	-2.931	0	0.04442	0.04442	0

$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.00061	-0.00061	0	$9.244 \cdot 10^{-6}$	$9.244 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-3.717 \cdot 10^{-5}$	$-3.717 \cdot 10^{-5}$	0	$1.107 \cdot 10^{-6}$	$1.107 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	-0.0001963	-0.0001963	0	$3.77 \cdot 10^{-6}$	$3.77 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	$5.133 \cdot 10^{-5}$	$5.133 \cdot 10^{-5}$	0	$3.397 \cdot 10^{-8}$	$3.397 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow d\bar{d}$	$-2.134 \cdot 10^{-5}$	$-2.134 \cdot 10^{-5}$	0	$5.039 \cdot 10^{-7}$	$5.039 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.01265	-0.01265	0	0.0008561	0.0008561	0
$b\bar{b} \rightarrow u\bar{u}$	-0.0001085	-0.0001085	0	$2.64 \cdot 10^{-6}$	$2.64 \cdot 10^{-6}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	-0.0006751	-0.0006751	0	$1.472 \cdot 10^{-5}$	$1.472 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-1.952 \cdot 10^{-5}$	$-1.952 \cdot 10^{-5}$	0	$7.929 \cdot 10^{-7}$	$7.929 \cdot 10^{-7}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	-0.000778	-0.000778	0	$1.696 \cdot 10^{-5}$	$1.696 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	$2.084 \cdot 10^{-6}$	$2.084 \cdot 10^{-6}$	0	$1.323 \cdot 10^{-7}$	$1.323 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow e^+ e^-$	$-2.619 \cdot 10^{-5}$	$-2.619 \cdot 10^{-5}$	0	$8.307 \cdot 10^{-7}$	$8.307 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow s\bar{s}$	-0.0006576	-0.0006576	0	$1.383 \cdot 10^{-5}$	$1.383 \cdot 10^{-5}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	-0.002693	-0.002693	0	0.0001399	0.0001399	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	-0.002171	-0.002171	0	$4.733 \cdot 10^{-5}$	$4.733 \cdot 10^{-5}$	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	-0.003013	-0.003013	0	$9.521 \cdot 10^{-5}$	$9.521 \cdot 10^{-5}$	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	$-6.605 \cdot 10^{-5}$	$-6.605 \cdot 10^{-5}$	0	$4.37 \cdot 10^{-5}$	$4.37 \cdot 10^{-5}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	-0.0003878	-0.0003878	0	$1.166 \cdot 10^{-5}$	$1.166 \cdot 10^{-5}$	0
$e^+ e^- \rightarrow e^+ e^-$	0.0007675	0.0007675	0	$1.152 \cdot 10^{-5}$	$1.152 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.0002921	-0.0002921	0	$5.602 \cdot 10^{-6}$	$5.602 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	-2.39	-2.39	0	0.0641	0.0641	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0002774	-0.0002774	0	$7.07 \cdot 10^{-6}$	$7.07 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.00026	-0.00026	0	$6.485 \cdot 10^{-6}$	$6.485 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-9.447 \cdot 10^{-5}$	$-9.447 \cdot 10^{-5}$	0	$2.301 \cdot 10^{-6}$	$2.301 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-1.241 \cdot 10^{-5}$	$-1.241 \cdot 10^{-5}$	0	$5.834 \cdot 10^{-7}$	$5.834 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-1.497 \cdot 10^{-5}$	$-1.497 \cdot 10^{-5}$	0	$6.405 \cdot 10^{-7}$	$6.405 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.02023	0.02023	0	0.0009	0.0009	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-4.042 \cdot 10^{-6}$	$-4.042 \cdot 10^{-6}$	0	$8.81 \cdot 10^{-8}$	$8.81 \cdot 10^{-8}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.002675	-0.002675	0	$5.832 \cdot 10^{-5}$	$5.832 \cdot 10^{-5}$	0

$u\bar{d} \rightarrow u\bar{d}$	0.0001268	0.0001268	0	$2.385 \cdot 10^{-6}$	$2.385 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$1.11 \cdot 10^{-5}$	$1.11 \cdot 10^{-5}$	0	$1.525 \cdot 10^{-7}$	$1.525 \cdot 10^{-7}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.0003402	-0.0003402	0	$8.068 \cdot 10^{-6}$	$8.068 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.02165	0.02165	0	0.0004055	0.0004055	0
$zz \rightarrow W^+W^-$	-3.726	-3.726	0	0.08927	0.08927	0
$zz \rightarrow zz$	0.004934	0.004934	0	$7.479 \cdot 10^{-5}$	$7.479 \cdot 10^{-5}$	0

## 2.7 cHG

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow t\bar{t}$	-0.0482	-0.0482	0	0.04069	0.04069	0
$gg \rightarrow u\bar{u}$	$-7.563 \cdot 10^{-12}$	$-7.563 \cdot 10^{-12}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0

## 2.8 cHGtil

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow gg$	$6.496 \cdot 10^{-14}$	$6.496 \cdot 10^{-14}$	0	$4.281 \cdot 10^{-31}$	$4.281 \cdot 10^{-31}$	0
$gg \rightarrow ggg$	$-8.891 \cdot 10^{-15}$	$-8.891 \cdot 10^{-15}$	0	$1.099 \cdot 10^{-26}$	$1.099 \cdot 10^{-26}$	0
$gg \rightarrow t\bar{t}$	$-2.928 \cdot 10^{-18}$	$-2.928 \cdot 10^{-18}$	0	0.04069	0.04069	0
$gg \rightarrow u\bar{u}$	$4.249 \cdot 10^{-29}$	$4.249 \cdot 10^{-29}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0

## 2.9 cHQ1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow z\bar{b}b$	$6.95 \cdot 10^{-7}$	$6.95 \cdot 10^{-7}$	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0

$HH \rightarrow zt\bar{t}$	$3.933 \cdot 10^{-5}$	$3.933 \cdot 10^{-5}$	0	$3.704 \cdot 10^{-5}$	$3.704 \cdot 10^{-5}$	0
$H z \rightarrow b\bar{b}$	0.0406	0.0406	0	0.1815	0.1815	0
$H z \rightarrow t\bar{t}$	2.088	2.088	0	1.498	1.498	0
$W^+W^- \rightarrow Hb\bar{b}$	$2.763 \cdot 10^{-6}$	$2.763 \cdot 10^{-6}$	0	$2.599 \cdot 10^{-7}$	$2.599 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-1.038 \cdot 10^{-6}$	$-1.038 \cdot 10^{-6}$	0	$1.842 \cdot 10^{-6}$	$1.842 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$6.152 \cdot 10^{-5}$	$6.152 \cdot 10^{-5}$	0	$2.939 \cdot 10^{-6}$	$2.939 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.00017	0.00017	0	$6.105 \cdot 10^{-6}$	$6.105 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	-0.03404	-0.03404	0	0.0005714	0.0005714	0
$b\bar{b} \rightarrow d\bar{d}$	0.0008046	0.0008046	0	$2.609 \cdot 10^{-5}$	$2.609 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0007922	-0.0007922	0	$7.987 \cdot 10^{-6}$	$7.987 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow u\bar{u}$	0.0003955	0.0003955	0	$1.204 \cdot 10^{-5}$	$1.204 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	$3.212 \cdot 10^{-6}$	$3.212 \cdot 10^{-6}$	0	$1.75 \cdot 10^{-7}$	$1.75 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.0003012	-0.0003012	0	$5.911 \cdot 10^{-6}$	$5.911 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.0007782	-0.0007782	0	$2.119 \cdot 10^{-5}$	$2.119 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	-0.0001069	-0.0001069	0	$5.257 \cdot 10^{-6}$	$5.257 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0007777	-0.0007777	0	$2.742 \cdot 10^{-5}$	$2.742 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.9847	0.9847	0	0.03553	0.03553	0

## 2.10 cHQ3

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+\bar{t}b$	$1.578 \cdot 10^{-5}$	$1.578 \cdot 10^{-5}$	0	$1.388 \cdot 10^{-5}$	$1.388 \cdot 10^{-5}$	0
$HH \rightarrow z\bar{b}b$	$4.949 \cdot 10^{-7}$	$4.949 \cdot 10^{-7}$	0	$7.593 \cdot 10^{-7}$	$7.593 \cdot 10^{-7}$	0
$HH \rightarrow zt\bar{t}$	$-1.051 \cdot 10^{-5}$	$-1.051 \cdot 10^{-5}$	0	$2.096 \cdot 10^{-5}$	$2.096 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-6.258 \cdot 10^{-6}$	$-6.258 \cdot 10^{-6}$	0	$7.43 \cdot 10^{-6}$	$7.43 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	-0.8785	-0.8785	0	1.625	1.625	0
$H z \rightarrow b\bar{b}$	0.2228	0.2228	0	0.9671	0.9671	0
$H z \rightarrow t\bar{t}$	-2.089	-2.089	0	1.456	1.456	0

$W^+W^- \rightarrow Hb\bar{b}$	$-5.351 \cdot 10^{-6}$	$-5.351 \cdot 10^{-6}$	0	$1.402 \cdot 10^{-6}$	$1.402 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$8.289 \cdot 10^{-6}$	$8.289 \cdot 10^{-6}$	0	$9.67 \cdot 10^{-6}$	$9.67 \cdot 10^{-6}$	0
$\bar{b}t \rightarrow \bar{d}u$	$3.129 \cdot 10^{-5}$	$3.129 \cdot 10^{-5}$	0	$9.484 \cdot 10^{-7}$	$9.484 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$4.928 \cdot 10^{-5}$	$4.928 \cdot 10^{-5}$	0	$3.329 \cdot 10^{-6}$	$3.329 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.0001825	0.0001825	0	$6.552 \cdot 10^{-6}$	$6.552 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	-0.03017	-0.03017	0	0.0004727	0.0004727	0
$b\bar{b} \rightarrow d\bar{d}$	0.001423	0.001423	0	$4.599 \cdot 10^{-5}$	$4.599 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.01333	-0.01333	0	0.003821	0.003821	0
$b\bar{b} \rightarrow u\bar{u}$	$9.069 \cdot 10^{-5}$	$9.069 \cdot 10^{-5}$	0	$5.67 \cdot 10^{-6}$	$5.67 \cdot 10^{-6}$	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	0.0006506	0.0006506	0	$1.972 \cdot 10^{-5}$	$1.972 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0.0003489	0.0003489	0	$1.568 \cdot 10^{-5}$	$1.568 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0.0001063	0.0001063	0	$3.325 \cdot 10^{-6}$	$3.325 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	0.000589	0.000589	0	$1.669 \cdot 10^{-5}$	$1.669 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	$7.483 \cdot 10^{-5}$	$7.483 \cdot 10^{-5}$	0	$4.283 \cdot 10^{-6}$	$4.283 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow s\bar{s}$	0.001196	0.001196	0	$4.174 \cdot 10^{-5}$	$4.174 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	-0.9857	-0.9857	0	0.03561	0.03561	0

## 2.11 cHW

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$-1.653 \cdot 10^{-5}$	$-1.653 \cdot 10^{-5}$	0	$2.129 \cdot 10^{-5}$	$2.129 \cdot 10^{-5}$	0
$HH \rightarrow W^+W^-$	-0.01475	-0.01475	0	7.962	7.962	0
$HH \rightarrow W^+W^-\gamma$	$5.762 \cdot 10^{-6}$	$5.762 \cdot 10^{-6}$	0	0.0006855	0.0006855	0
$HH \rightarrow W^+\bar{t}b$	$-1.676 \cdot 10^{-5}$	$-1.676 \cdot 10^{-5}$	0	$2.684 \cdot 10^{-5}$	$2.684 \cdot 10^{-5}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	0.0002479	0.0002479	0	0.001881	0.001881	0
$HH \rightarrow W^-u\bar{d}$	$1.337 \cdot 10^{-6}$	$1.337 \cdot 10^{-6}$	0	$4.026 \cdot 10^{-6}$	$4.026 \cdot 10^{-6}$	0
$HH \rightarrow z\bar{b}b$	$1.479 \cdot 10^{-6}$	$1.479 \cdot 10^{-6}$	0	$3.075 \cdot 10^{-6}$	$3.075 \cdot 10^{-6}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$7.518 \cdot 10^{-8}$	$7.518 \cdot 10^{-8}$	0	$3.046 \cdot 10^{-7}$	$3.046 \cdot 10^{-7}$	0
$HH \rightarrow zc\bar{c}$	$4.679 \cdot 10^{-7}$	$4.679 \cdot 10^{-7}$	0	$1.416 \cdot 10^{-6}$	$1.416 \cdot 10^{-6}$	0

$HH \rightarrow zd\bar{d}$	$4.337 \cdot 10^{-7}$	$4.337 \cdot 10^{-7}$	0	$2.544 \cdot 10^{-6}$	$2.544 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$-1.759 \cdot 10^{-7}$	$-1.759 \cdot 10^{-7}$	0	$6.168 \cdot 10^{-6}$	$6.168 \cdot 10^{-6}$	0
$HH \rightarrow zt\bar{t}$	$-3.835 \cdot 10^{-6}$	$-3.835 \cdot 10^{-6}$	0	$1.988 \cdot 10^{-6}$	$1.988 \cdot 10^{-6}$	0
$HH \rightarrow zz$	0.0197	0.0197	0	2.203	2.203	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-2.04 \cdot 10^{-6}$	$-2.04 \cdot 10^{-6}$	0	$1.086 \cdot 10^{-6}$	$1.086 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-3.096 \cdot 10^{-6}$	$-3.096 \cdot 10^{-6}$	0	$2.962 \cdot 10^{-5}$	$2.962 \cdot 10^{-5}$	0
$HW^+ \rightarrow u\bar{d}$	0.02053	0.02053	0	0.09766	0.09766	0
$HW^- \rightarrow t\bar{b}$	-0.04916	-0.04916	0	0.05559	0.05559	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$1.658 \cdot 10^{-7}$	$1.658 \cdot 10^{-7}$	0	$6.965 \cdot 10^{-7}$	$6.965 \cdot 10^{-7}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	0.004669	0.004669	0	0.02221	0.02221	0
$H\gamma \rightarrow b\bar{b}$	$-6.175 \cdot 10^{-7}$	$-6.175 \cdot 10^{-7}$	0	0.009445	0.009445	0
$H\gamma \rightarrow c\bar{c}$	$-8.359 \cdot 10^{-6}$	$-8.359 \cdot 10^{-6}$	0	0.01596	0.01596	0
$H\gamma \rightarrow d\bar{d}$	$-4.285 \cdot 10^{-13}$	$-4.285 \cdot 10^{-13}$	0	0.009278	0.009278	0
$H\gamma \rightarrow e^+e^-$	$-2.633 \cdot 10^{-17}$	$-2.633 \cdot 10^{-17}$	0	0.003004	0.003004	0
$H\gamma \rightarrow t\bar{t}$	-0.02391	-0.02391	0	0.01136	0.01136	0
$H\gamma \rightarrow \mu^+\mu^-$	0.00187	0.00187	0	0.009736	0.009736	0
$H\gamma \rightarrow \nu_\tau\bar{\nu}_\tau$	0.00254	0.00254	0	0.007095	0.007095	0
$H\gamma \rightarrow b\bar{b}$	0.008251	0.008251	0	0.02747	0.02747	0
$H\gamma \rightarrow s\bar{s}$	0.008056	0.008056	0	0.02662	0.02662	0
$H\gamma \rightarrow t\bar{t}$	-0.04333	-0.04333	0	0.02498	0.02498	0
$H\gamma \rightarrow u\bar{u}$	0.006379	0.006379	0	0.02579	0.02579	0
$W^+W^- \rightarrow Hb\bar{b}$	$-4.884 \cdot 10^{-6}$	$-4.884 \cdot 10^{-6}$	0	$9.352 \cdot 10^{-6}$	$9.352 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-3.135 \cdot 10^{-7}$	$-3.135 \cdot 10^{-7}$	0	$6.492 \cdot 10^{-7}$	$6.492 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-2.324 \cdot 10^{-8}$	$-2.324 \cdot 10^{-8}$	0	$5.819 \cdot 10^{-9}$	$5.819 \cdot 10^{-9}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$1.584 \cdot 10^{-6}$	$1.584 \cdot 10^{-6}$	0	$1.54 \cdot 10^{-5}$	$1.54 \cdot 10^{-5}$	0
$W^+W^- \rightarrow W^+W^-$	0.2389	0.2389	0	2.746	2.746	0
$W^+W^- \rightarrow \gamma\gamma$	-0.01225	-0.01225	0	0.02503	0.02503	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$-3.281 \cdot 10^{-8}$	$-3.281 \cdot 10^{-8}$	0	$5.549 \cdot 10^{-8}$	$5.549 \cdot 10^{-8}$	0
$\gamma W^+ \rightarrow zW^+$	0.018	0.018	0	0.00945	0.00945	0



$b\bar{b} \rightarrow \gamma\gamma$	$-1.319 \cdot 10^{-7}$	$-1.319 \cdot 10^{-7}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
$zz \rightarrow W^+W^-$	-0.4019	-0.4019	0	1.421	1.421	0
$zz \rightarrow zz$	0.005971	0.005971	0	0.8512	0.8512	0

## 2.12 cHWP

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Hzz$	$-9.343 \cdot 10^{-6}$	$-9.343 \cdot 10^{-6}$	0	$1.668 \cdot 10^{-6}$	$1.668 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	-26.09	-26.09	0	7.464	7.464	0
$HH \rightarrow W^+W^-\gamma$	-0.001874	-0.001874	0	0.0006163	0.0006163	0
$HH \rightarrow W^+\bar{t}b$	$-2.958 \cdot 10^{-6}$	$-2.958 \cdot 10^{-6}$	0	$2.844 \cdot 10^{-6}$	$2.844 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-3.272 \cdot 10^{-7}$	$-3.272 \cdot 10^{-7}$	0	$7.18 \cdot 10^{-8}$	$7.18 \cdot 10^{-8}$	0
$HH \rightarrow W^-u\bar{d}$	$-1.378 \cdot 10^{-6}$	$-1.378 \cdot 10^{-6}$	0	$1.722 \cdot 10^{-7}$	$1.722 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$1.394 \cdot 10^{-7}$	$1.394 \cdot 10^{-7}$	0	$3.542 \cdot 10^{-7}$	$3.542 \cdot 10^{-7}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$8.11 \cdot 10^{-8}$	$8.11 \cdot 10^{-8}$	0	$1.928 \cdot 10^{-7}$	$1.928 \cdot 10^{-7}$	0
$HH \rightarrow zcc$	$4.542 \cdot 10^{-7}$	$4.542 \cdot 10^{-7}$	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0
$HH \rightarrow zdd$	$-7.189 \cdot 10^{-8}$	$-7.189 \cdot 10^{-8}$	0	$3.432 \cdot 10^{-7}$	$3.432 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	0.0009537	0.0009537	0	0.007877	0.007877	0
$HH \rightarrow zt\bar{t}$	$-5.991 \cdot 10^{-6}$	$-5.991 \cdot 10^{-6}$	0	$8.209 \cdot 10^{-7}$	$8.209 \cdot 10^{-7}$	0
$HH \rightarrow zz$	0.05285	0.05285	0	0.8037	0.8037	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-2.814 \cdot 10^{-7}$	$-2.814 \cdot 10^{-7}$	0	$6.553 \cdot 10^{-7}$	$6.553 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-5.225 \cdot 10^{-8}$	$-5.225 \cdot 10^{-8}$	0	$1.136 \cdot 10^{-6}$	$1.136 \cdot 10^{-6}$	0
$HW^+ \rightarrow u\bar{d}$	-0.001958	-0.001958	0	0.0001414	0.0001414	0
$HW^- \rightarrow \bar{t}b$	-0.6535	-0.6535	0	0.2252	0.2252	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-3.79 \cdot 10^{-7}$	$-3.79 \cdot 10^{-7}$	0	$4.338 \cdot 10^{-6}$	$4.338 \cdot 10^{-6}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	-0.002328	-0.002328	0	0.0001681	0.0001681	0
$H\gamma \rightarrow b\bar{b}$	$9.618 \cdot 10^{-7}$	$9.618 \cdot 10^{-7}$	0	0.006689	0.006689	0
$H\gamma \rightarrow c\bar{c}$	$2.991 \cdot 10^{-9}$	$2.991 \cdot 10^{-9}$	0	0.01016	0.01016	0

$H\gamma \rightarrow d\bar{d}$	$2.118 \cdot 10^{-11}$	$2.118 \cdot 10^{-11}$	0	0.009747	0.009747	0
$H\gamma \rightarrow e^+e^-$	$1.322 \cdot 10^{-14}$	$1.322 \cdot 10^{-14}$	0	0.005258	0.005258	0
$H\gamma \rightarrow t\bar{t}$	0.04384	0.04384	0	0.01434	0.01434	0
$H z \rightarrow \mu^+\mu^-$	0.0008399	0.0008399	0	0.003156	0.003156	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	0.002164	0.002164	0	0.003338	0.003338	0
$H z \rightarrow b\bar{b}$	0.001526	0.001526	0	0.003382	0.003382	0
$H z \rightarrow s\bar{s}$	0.00375	0.00375	0	0.005612	0.005612	0
$H z \rightarrow t\bar{t}$	-0.06391	-0.06391	0	0.009991	0.009991	0
$H z \rightarrow u\bar{u}$	0.000994	0.000994	0	0.003886	0.003886	0
$W^+W^- \rightarrow Hb\bar{b}$	$-1.511 \cdot 10^{-6}$	$-1.511 \cdot 10^{-6}$	0	$2.841 \cdot 10^{-7}$	$2.841 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-7.532 \cdot 10^{-7}$	$-7.532 \cdot 10^{-7}$	0	$1.649 \cdot 10^{-7}$	$1.649 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-1.224 \cdot 10^{-5}$	$-1.224 \cdot 10^{-5}$	0	$1.997 \cdot 10^{-6}$	$1.997 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-7.406 \cdot 10^{-5}$	$-7.406 \cdot 10^{-5}$	0	$1.287 \cdot 10^{-5}$	$1.287 \cdot 10^{-5}$	0
$W^+W^- \rightarrow W^+W^-$	-1.395	-1.395	0	0.1566	0.1566	0
$W^+W^- \rightarrow \gamma\gamma$	-0.001752	-0.001752	0	0.09934	0.09934	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$8.742 \cdot 10^{-8}$	$8.742 \cdot 10^{-8}$	0	$7.361 \cdot 10^{-8}$	$7.361 \cdot 10^{-8}$	0
$\bar{b}t \rightarrow \bar{d}u$	-0.005229	-0.005229	0	0.0002517	0.0002517	0
$\gamma W^+ \rightarrow zW^+$	0.08575	0.08575	0	0.4899	0.4899	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	-0.000287	-0.000287	0	0.0001262	0.0001262	0
$\nu_\tau\bar{\nu}_\tau \rightarrow \nu_\tau\bar{\nu}_\tau$	$1.549 \cdot 10^{-16}$	$1.549 \cdot 10^{-16}$	0	$1.252 \cdot 10^{-33}$	$1.252 \cdot 10^{-33}$	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	$8.619 \cdot 10^{-21}$	$8.619 \cdot 10^{-21}$	0	$3.82 \cdot 10^{-38}$	$3.82 \cdot 10^{-38}$	0
$b\bar{b} \rightarrow \gamma\gamma$	$2.879 \cdot 10^{-7}$	$2.879 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	-0.000222	-0.000222	0	$2.734 \cdot 10^{-5}$	$2.734 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	-0.0003082	-0.0003082	0	$5.882 \cdot 10^{-6}$	$5.882 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.03449	0.03449	0	0.001667	0.001667	0
$b\bar{b} \rightarrow d\bar{d}$	-0.0004972	-0.0004972	0	$2.215 \cdot 10^{-5}$	$2.215 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	0.007954	0.007954	0	0.00322	0.00322	0
$b\bar{b} \rightarrow u\bar{u}$	$8.182 \cdot 10^{-5}$	$8.182 \cdot 10^{-5}$	0	$3.235 \cdot 10^{-5}$	$3.235 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	-0.002745	-0.002745	0	0.0001321	0.0001321	0

$c\bar{c} \rightarrow \mu^+\mu^-$	-0.0002054	-0.0002054	0	$2.892 \cdot 10^{-5}$	$2.892 \cdot 10^{-5}$	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	-0.001266	-0.001266	0	$6.093 \cdot 10^{-5}$	$6.093 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.001459	-0.001459	0	$8.784 \cdot 10^{-5}$	$8.784 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow e^+e^-$	$1.173 \cdot 10^{-5}$	$1.173 \cdot 10^{-5}$	0	$1.984 \cdot 10^{-5}$	$1.984 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow s\bar{s}$	-0.001149	-0.001149	0	$4.218 \cdot 10^{-5}$	$4.218 \cdot 10^{-5}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0.01129	0.01129	0	0.008849	0.008849	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	-0.006568	-0.006568	0	0.0003162	0.0003162	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.00419	-0.00419	0	0.001905	0.001905	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.0161	-0.0161	0	0.005244	0.005244	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0002078	-0.0002078	0	$7.008 \cdot 10^{-5}$	$7.008 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.001581	-0.001581	0	0.0001862	0.0001862	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$5.677 \cdot 10^{-5}$	$5.677 \cdot 10^{-5}$	0	$5.952 \cdot 10^{-6}$	$5.952 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.009693	0.009693	0	0.0001788	0.0001788	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.0004929	-0.0004929	0	$2.45 \cdot 10^{-5}$	$2.45 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.0005706	-0.0005706	0	$7.921 \cdot 10^{-5}$	$7.921 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.001146	-0.001146	0	$9.957 \cdot 10^{-5}$	$9.957 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-1.202 \cdot 10^{-6}$	$-1.202 \cdot 10^{-6}$	0	$3.603 \cdot 10^{-5}$	$3.603 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.001206	-0.001206	0	$7.686 \cdot 10^{-5}$	$7.686 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.005076	0.005076	0	$7.45 \cdot 10^{-5}$	$7.45 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-5.35 \cdot 10^{-6}$	$-5.35 \cdot 10^{-6}$	0	$2.575 \cdot 10^{-7}$	$2.575 \cdot 10^{-7}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.001459	-0.001459	0	$7.024 \cdot 10^{-5}$	$7.024 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.01811	0.01811	0	0.0009286	0.0009286	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0003131	-0.0003131	0	$1.675 \cdot 10^{-5}$	$1.675 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.001095	-0.001095	0	$9.711 \cdot 10^{-5}$	$9.711 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.02046	0.02046	0	0.00167	0.00167	0
$zz \rightarrow W^+W^-$	-4.43	-4.43	0	0.416	0.416	0
$zz \rightarrow zz$	0.003298	0.003298	0	0.2566	0.2566	0

## 2.13 cHWBtil

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$8.854 \cdot 10^{-7}$	$8.854 \cdot 10^{-7}$	0	$6.96 \cdot 10^{-7}$	$6.96 \cdot 10^{-7}$	0
$HH \rightarrow W^+W^-\gamma$	$9.688 \cdot 10^{-7}$	$9.688 \cdot 10^{-7}$	0	$6.31 \cdot 10^{-5}$	$6.31 \cdot 10^{-5}$	0
$HH \rightarrow z\bar{b}b$	$-1.643 \cdot 10^{-7}$	$-1.643 \cdot 10^{-7}$	0	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-3.051 \cdot 10^{-7}$	$-3.051 \cdot 10^{-7}$	0	$4.918 \cdot 10^{-7}$	$4.918 \cdot 10^{-7}$	0
$HH \rightarrow z c\bar{c}$	$-3.585 \cdot 10^{-8}$	$-3.585 \cdot 10^{-8}$	0	$4.039 \cdot 10^{-8}$	$4.039 \cdot 10^{-8}$	0
$HH \rightarrow z d\bar{d}$	$7.025 \cdot 10^{-7}$	$7.025 \cdot 10^{-7}$	0	$1.397 \cdot 10^{-6}$	$1.397 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$-1.426 \cdot 10^{-8}$	$-1.426 \cdot 10^{-8}$	0	$6.217 \cdot 10^{-8}$	$6.217 \cdot 10^{-8}$	0
$HH \rightarrow z t\bar{t}$	$1.203 \cdot 10^{-7}$	$1.203 \cdot 10^{-7}$	0	$4.61 \cdot 10^{-7}$	$4.61 \cdot 10^{-7}$	0
$HH \rightarrow zz$	$-8.206 \cdot 10^{-17}$	$-8.206 \cdot 10^{-17}$	0	0.6664	0.6664	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-8.171 \cdot 10^{-7}$	$-8.171 \cdot 10^{-7}$	0	$3.286 \cdot 10^{-6}$	$3.286 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.799 \cdot 10^{-7}$	$-1.799 \cdot 10^{-7}$	0	$5.197 \cdot 10^{-6}$	$5.197 \cdot 10^{-6}$	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-4.54 \cdot 10^{-7}$	$-4.54 \cdot 10^{-7}$	0	$2.06 \cdot 10^{-9}$	$2.06 \cdot 10^{-9}$	0
$H\gamma \rightarrow b\bar{b}$	$-6.467 \cdot 10^{-10}$	$-6.467 \cdot 10^{-10}$	0	0.006826	0.006826	0
$H\gamma \rightarrow c\bar{c}$	$1.893 \cdot 10^{-10}$	$1.893 \cdot 10^{-10}$	0	0.01196	0.01196	0
$H\gamma \rightarrow d\bar{d}$	$1.012 \cdot 10^{-14}$	$1.012 \cdot 10^{-14}$	0	0.01119	0.01119	0
$H\gamma \rightarrow e^+e^-$	$9.918 \cdot 10^{-18}$	$9.918 \cdot 10^{-18}$	0	0.005538	0.005538	0
$H\gamma \rightarrow t\bar{t}$	-0.001279	-0.001279	0	0.01969	0.01969	0
$H z \rightarrow \mu^+\mu^-$	$-2.84 \cdot 10^{-7}$	$-2.84 \cdot 10^{-7}$	0	0.003603	0.003603	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	$-9.035 \cdot 10^{-20}$	$-9.035 \cdot 10^{-20}$	0	0.002398	0.002398	0
$H z \rightarrow b\bar{b}$	$1.613 \cdot 10^{-7}$	$1.613 \cdot 10^{-7}$	0	0.004281	0.004281	0
$H z \rightarrow s\bar{s}$	$-3.443 \cdot 10^{-8}$	$-3.443 \cdot 10^{-8}$	0	0.003409	0.003409	0
$H z \rightarrow t\bar{t}$	$-5.45 \cdot 10^{-6}$	$-5.45 \cdot 10^{-6}$	0	0.005017	0.005017	0
$H z \rightarrow u\bar{u}$	$-9.444 \cdot 10^{-8}$	$-9.444 \cdot 10^{-8}$	0	0.003426	0.003426	0
$W^+W^- \rightarrow H b\bar{b}$	$3.423 \cdot 10^{-8}$	$3.423 \cdot 10^{-8}$	0	$2.411 \cdot 10^{-8}$	$2.411 \cdot 10^{-8}$	0
$W^+W^- \rightarrow H c\bar{c}$	$4.72 \cdot 10^{-9}$	$4.72 \cdot 10^{-9}$	0	$4.913 \cdot 10^{-8}$	$4.913 \cdot 10^{-8}$	0
$W^+W^- \rightarrow H d\bar{d}$	$-3.661 \cdot 10^{-9}$	$-3.661 \cdot 10^{-9}$	0	$1.632 \cdot 10^{-8}$	$1.632 \cdot 10^{-8}$	0
$W^+W^- \rightarrow H t\bar{t}$	$-5.476 \cdot 10^{-8}$	$-5.476 \cdot 10^{-8}$	0	$2.161 \cdot 10^{-7}$	$2.161 \cdot 10^{-7}$	0

$W^+W^- \rightarrow W^+W^-$	$2.031 \cdot 10^{-17}$	$2.031 \cdot 10^{-17}$	0	0.5381	0.5381	0
$W^+W^- \rightarrow \gamma\gamma$	$7.723 \cdot 10^{-18}$	$7.723 \cdot 10^{-18}$	0	0.08286	0.08286	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$-2.613 \cdot 10^{-9}$	$-2.613 \cdot 10^{-9}$	0	$8.436 \cdot 10^{-8}$	$8.436 \cdot 10^{-8}$	0
$\gamma W^+ \rightarrow zW^+$	$-1.479 \cdot 10^{-15}$	$-1.479 \cdot 10^{-15}$	0	0.521	0.521	0
$b\bar{b} \rightarrow \gamma\gamma$	$-1.233 \cdot 10^{-23}$	$-1.233 \cdot 10^{-23}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
$zz \rightarrow W^+W^-$	$-5.546 \cdot 10^{-16}$	$-5.546 \cdot 10^{-16}$	0	0.171	0.171	0
$zz \rightarrow zz$	$2.862 \cdot 10^{-17}$	$2.862 \cdot 10^{-17}$	0	0.2503	0.2503	0

## 2.14 cHWtil

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$-2.365 \cdot 10^{-7}$	$-2.365 \cdot 10^{-7}$	0	$1.5 \cdot 10^{-5}$	$1.5 \cdot 10^{-5}$	0
$HH \rightarrow W^+W^-$	$-2.618 \cdot 10^{-16}$	$-2.618 \cdot 10^{-16}$	0	7.922	7.922	0
$HH \rightarrow W^+W^-\gamma$	$3.345 \cdot 10^{-6}$	$3.345 \cdot 10^{-6}$	0	0.007377	0.007377	0
$HH \rightarrow W^+\bar{t}b$	$2.021 \cdot 10^{-6}$	$2.021 \cdot 10^{-6}$	0	$1.552 \cdot 10^{-5}$	$1.552 \cdot 10^{-5}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$6.803 \cdot 10^{-9}$	$6.803 \cdot 10^{-9}$	0	$9.541 \cdot 10^{-8}$	$9.541 \cdot 10^{-8}$	0
$HH \rightarrow W^-u\bar{d}$	$1.291 \cdot 10^{-6}$	$1.291 \cdot 10^{-6}$	0	$2.534 \cdot 10^{-5}$	$2.534 \cdot 10^{-5}$	0
$HH \rightarrow z\bar{b}b$	$-3.147 \cdot 10^{-6}$	$-3.147 \cdot 10^{-6}$	0	0.000329	0.000329	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-9.224 \cdot 10^{-8}$	$-9.224 \cdot 10^{-8}$	0	$8.1 \cdot 10^{-7}$	$8.1 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{c}c$	$-9.473 \cdot 10^{-8}$	$-9.473 \cdot 10^{-8}$	0	$1.236 \cdot 10^{-6}$	$1.236 \cdot 10^{-6}$	0
$HH \rightarrow z\bar{d}d$	$1.003 \cdot 10^{-7}$	$1.003 \cdot 10^{-7}$	0	$2.803 \cdot 10^{-6}$	$2.803 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$1.478 \cdot 10^{-7}$	$1.478 \cdot 10^{-7}$	0	$3.681 \cdot 10^{-7}$	$3.681 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{t}t$	$8.999 \cdot 10^{-7}$	$8.999 \cdot 10^{-7}$	0	$9.088 \cdot 10^{-6}$	$9.088 \cdot 10^{-6}$	0
$HH \rightarrow zz$	$-2.49 \cdot 10^{-16}$	$-2.49 \cdot 10^{-16}$	0	2.209	2.209	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-1.361 \cdot 10^{-7}$	$-1.361 \cdot 10^{-7}$	0	$2.422 \cdot 10^{-6}$	$2.422 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.276 \cdot 10^{-7}$	$-1.276 \cdot 10^{-7}$	0	$2.397 \cdot 10^{-6}$	$2.397 \cdot 10^{-6}$	0
$HW^+ \rightarrow u\bar{d}$	$-2.153 \cdot 10^{-15}$	$-2.153 \cdot 10^{-15}$	0	0.05295	0.05295	0
$HW^- \rightarrow \bar{t}b$	0.0003357	0.0003357	0	0.07877	0.07877	0

$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-6.072 \cdot 10^{-10}$	$-6.072 \cdot 10^{-10}$	0	$2.453 \cdot 10^{-7}$	$2.453 \cdot 10^{-7}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$1.422 \cdot 10^{-12}$	$1.422 \cdot 10^{-12}$	0	0.01797	0.01797	0
$H\gamma \rightarrow b\bar{b}$	$9.464 \cdot 10^{-10}$	$9.464 \cdot 10^{-10}$	0	0.009745	0.009745	0
$H\gamma \rightarrow c\bar{c}$	$-1.378 \cdot 10^{-9}$	$-1.378 \cdot 10^{-9}$	0	0.01496	0.01496	0
$H\gamma \rightarrow d\bar{d}$	$1.854 \cdot 10^{-15}$	$1.854 \cdot 10^{-15}$	0	0.01047	0.01047	0
$H\gamma \rightarrow e^+ e^-$	$-1.94 \cdot 10^{-18}$	$-1.94 \cdot 10^{-18}$	0	0.003009	0.003009	0
$H\gamma \rightarrow t\bar{t}$	$-1.405 \cdot 10^{-6}$	$-1.405 \cdot 10^{-6}$	0	0.009046	0.009046	0
$H z \rightarrow \mu^+ \mu^-$	$3.451 \cdot 10^{-7}$	$3.451 \cdot 10^{-7}$	0	0.009653	0.009653	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	$1.446 \cdot 10^{-19}$	$1.446 \cdot 10^{-19}$	0	0.006747	0.006747	0
$H z \rightarrow b\bar{b}$	$2.182 \cdot 10^{-7}$	$2.182 \cdot 10^{-7}$	0	0.02337	0.02337	0
$H z \rightarrow s\bar{s}$	$-1.569 \cdot 10^{-7}$	$-1.569 \cdot 10^{-7}$	0	0.02174	0.02174	0
$H z \rightarrow t\bar{t}$	$8.306 \cdot 10^{-7}$	$8.306 \cdot 10^{-7}$	0	0.02487	0.02487	0
$H z \rightarrow u\bar{u}$	$1.346 \cdot 10^{-7}$	$1.346 \cdot 10^{-7}$	0	0.02012	0.02012	0
$W^+ W^- \rightarrow H b\bar{b}$	$-9.93 \cdot 10^{-7}$	$-9.93 \cdot 10^{-7}$	0	$1.829 \cdot 10^{-6}$	$1.829 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H c\bar{c}$	$-7.3 \cdot 10^{-8}$	$-7.3 \cdot 10^{-8}$	0	$8.036 \cdot 10^{-6}$	$8.036 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H d\bar{d}$	$-2.066 \cdot 10^{-9}$	$-2.066 \cdot 10^{-9}$	0	$8.304 \cdot 10^{-10}$	$8.304 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H t\bar{t}$	$-4.241 \cdot 10^{-7}$	$-4.241 \cdot 10^{-7}$	0	$1.014 \cdot 10^{-5}$	$1.014 \cdot 10^{-5}$	0
$W^+ W^- \rightarrow W^+ W^-$	$-7.226 \cdot 10^{-15}$	$-7.226 \cdot 10^{-15}$	0	2.482	2.482	0
$W^+ W^- \rightarrow \gamma\gamma$	$9.667 \cdot 10^{-18}$	$9.667 \cdot 10^{-18}$	0	0.02503	0.02503	0
$W^+ W^- \rightarrow \gamma\gamma\gamma$	$-7.022 \cdot 10^{-11}$	$-7.022 \cdot 10^{-11}$	0	$6.411 \cdot 10^{-9}$	$6.411 \cdot 10^{-9}$	0
$\gamma W^+ \rightarrow z W^+$	$1.311 \cdot 10^{-16}$	$1.311 \cdot 10^{-16}$	0	0.00679	0.00679	0
$b\bar{b} \rightarrow \gamma\gamma$	$-2.443 \cdot 10^{-24}$	$-2.443 \cdot 10^{-24}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
$z z \rightarrow W^+ W^-$	$1.304 \cdot 10^{-14}$	$1.304 \cdot 10^{-14}$	0	1.42	1.42	0
$z z \rightarrow z z$	$-1.153 \cdot 10^{-17}$	$-1.153 \cdot 10^{-17}$	0	0.8223	0.8223	0

## 2.15 cHbq

mod1	interference		mod1	square	
	mod2	$1 - \text{mod2}/\text{mod1}$		mod2	$1 - \text{mod2}/\text{mod1}$

$HH \rightarrow z\bar{b}b$	$-1.685 \cdot 10^{-7}$	$-1.685 \cdot 10^{-7}$	0	$5.745 \cdot 10^{-7}$	$5.745 \cdot 10^{-7}$	0
$H\bar{z} \rightarrow b\bar{b}$	-0.04184	-0.04184	0	1.008	1.008	0
$W^+W^- \rightarrow Hb\bar{b}$	$-3.249 \cdot 10^{-8}$	$-3.249 \cdot 10^{-8}$	0	$7.577 \cdot 10^{-8}$	$7.577 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$1.931 \cdot 10^{-6}$	$1.931 \cdot 10^{-6}$	0	$3.148 \cdot 10^{-6}$	$3.148 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	$-6.18 \cdot 10^{-5}$	$-6.18 \cdot 10^{-5}$	0	$1.203 \cdot 10^{-5}$	$1.203 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.0009816	0.0009816	0	0.0002839	0.0002839	0
$b\bar{b} \rightarrow d\bar{d}$	$-3.62 \cdot 10^{-5}$	$-3.62 \cdot 10^{-5}$	0	$1.667 \cdot 10^{-6}$	$1.667 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0001188	-0.0001188	0	$5.42 \cdot 10^{-6}$	$5.42 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow u\bar{u}$	$3.586 \cdot 10^{-5}$	$3.586 \cdot 10^{-5}$	0	$1.911 \cdot 10^{-5}$	$1.911 \cdot 10^{-5}$	0

## 2.16 cHd

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow zdd\bar{d}$	$-3.183 \cdot 10^{-7}$	$-3.183 \cdot 10^{-7}$	0	$2.599 \cdot 10^{-6}$	$2.599 \cdot 10^{-6}$	0
$H\bar{z} \rightarrow s\bar{s}$	-0.01188	-0.01188	0	0.2781	0.2781	0
$W^+W^- \rightarrow Hdd\bar{d}$	$-3.848 \cdot 10^{-8}$	$-3.848 \cdot 10^{-8}$	0	$6.077 \cdot 10^{-7}$	$6.077 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow dd\bar{d}$	$-5.351 \cdot 10^{-5}$	$-5.351 \cdot 10^{-5}$	0	$2.455 \cdot 10^{-5}$	$2.455 \cdot 10^{-5}$	0
$dd\bar{d} \rightarrow c\bar{c}$	$4.316 \cdot 10^{-5}$	$4.316 \cdot 10^{-5}$	0	$2.093 \cdot 10^{-5}$	$2.093 \cdot 10^{-5}$	0
$dd\bar{d} \rightarrow e^+e^-$	$2.539 \cdot 10^{-5}$	$2.539 \cdot 10^{-5}$	0	$3.909 \cdot 10^{-6}$	$3.909 \cdot 10^{-6}$	0
$dd\bar{d} \rightarrow s\bar{s}$	-0.0001403	-0.0001403	0	$6.734 \cdot 10^{-5}$	$6.734 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$-2.155 \cdot 10^{-5}$	$-2.155 \cdot 10^{-5}$	0	$4.196 \cdot 10^{-6}$	$4.196 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	-0.0003562	-0.0003562	0	0.0001993	0.0001993	0
$t\bar{t} \rightarrow dd\bar{d}$	$-9.162 \cdot 10^{-5}$	$-9.162 \cdot 10^{-5}$	0	$5.122 \cdot 10^{-6}$	$5.122 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-7.527 \cdot 10^{-5}$	$-7.527 \cdot 10^{-5}$	0	$5.367 \cdot 10^{-6}$	$5.367 \cdot 10^{-6}$	0
$ud\bar{d} \rightarrow u\bar{d}$	0.0001486	0.0001486	0	$7.274 \cdot 10^{-5}$	$7.274 \cdot 10^{-5}$	0

## 2.17 cHe11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow ze^+e^-$	$-1.496 \cdot 10^{-7}$	$-1.496 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-7}$	$2.152 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow e^+e^-$	$-5.739 \cdot 10^{-5}$	$-5.739 \cdot 10^{-5}$	0	$8.91 \cdot 10^{-6}$	$8.91 \cdot 10^{-6}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.005424	-0.005424	0	0.0003519	0.0003519	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.001439	-0.001439	0	$9.336 \cdot 10^{-5}$	$9.336 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	0.0007443	0.0007443	0	$2.674 \cdot 10^{-5}$	$2.674 \cdot 10^{-5}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.000122	0.000122	0	$1.036 \cdot 10^{-5}$	$1.036 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	0.003132	0.003132	0	0.0001114	0.0001114	0

## 2.18 cHe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$H\bar{z} \rightarrow \mu^+\mu^-$	-0.01123	-0.01123	0	0.08767	0.08767	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	-0.0005347	-0.0005347	0	$9.911 \cdot 10^{-6}$	$9.911 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-2.739 \cdot 10^{-5}$	$-2.739 \cdot 10^{-5}$	0	$1.631 \cdot 10^{-6}$	$1.631 \cdot 10^{-6}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$6.098 \cdot 10^{-5}$	$6.098 \cdot 10^{-5}$	0	$8.699 \cdot 10^{-6}$	$8.699 \cdot 10^{-6}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	$1.759 \cdot 10^{-5}$	$1.759 \cdot 10^{-5}$	0	$9.444 \cdot 10^{-6}$	$9.444 \cdot 10^{-6}$	0

## 2.19 cHe33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	-0.0006896	-0.0006896	0	$1.128 \cdot 10^{-5}$	$1.128 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	0.001126	0.001126	0	$5.874 \cdot 10^{-5}$	$5.874 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-1.646 \cdot 10^{-5}$	$-1.646 \cdot 10^{-5}$	0	$3.057 \cdot 10^{-6}$	$3.057 \cdot 10^{-6}$	0



## 2.20 cHj1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z c \bar{c}$	$-1.995 \cdot 10^{-6}$	$-1.995 \cdot 10^{-6}$	0	$2.65 \cdot 10^{-6}$	$2.65 \cdot 10^{-6}$	0
$HH \rightarrow z d \bar{d}$	$6.945 \cdot 10^{-7}$	$6.945 \cdot 10^{-7}$	0	$2.253 \cdot 10^{-7}$	$2.253 \cdot 10^{-7}$	0
$H z \rightarrow s \bar{s}$	0.1395	0.1395	0	0.6023	0.6023	0
$H z \rightarrow u \bar{u}$	-0.1064	-0.1064	0	0.5634	0.5634	0
$W^+ W^- \rightarrow H c \bar{c}$	$-8.83 \cdot 10^{-6}$	$-8.83 \cdot 10^{-6}$	0	$3.359 \cdot 10^{-7}$	$3.359 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$3.446 \cdot 10^{-7}$	$3.446 \cdot 10^{-7}$	0	$4.607 \cdot 10^{-7}$	$4.607 \cdot 10^{-7}$	0
$b \bar{b} \rightarrow d \bar{d}$	0.001423	0.001423	0	$4.599 \cdot 10^{-5}$	$4.599 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow u \bar{u}$	$-3.712 \cdot 10^{-5}$	$-3.712 \cdot 10^{-5}$	0	$2.839 \cdot 10^{-6}$	$2.839 \cdot 10^{-6}$	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	-0.0001522	-0.0001522	0	$3.575 \cdot 10^{-6}$	$3.575 \cdot 10^{-6}$	0
$d \bar{d} \rightarrow c \bar{c}$	-0.0001787	-0.0001787	0	$1.421 \cdot 10^{-6}$	$1.421 \cdot 10^{-6}$	0
$d \bar{d} \rightarrow e^+ e^-$	$5.04 \cdot 10^{-5}$	$5.04 \cdot 10^{-5}$	0	$4.424 \cdot 10^{-6}$	$4.424 \cdot 10^{-6}$	0
$d \bar{d} \rightarrow s \bar{s}$	0.001106	0.001106	0	$7.167 \cdot 10^{-5}$	$7.167 \cdot 10^{-5}$	0
$s \bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.0003288	0.0003288	0	$1.181 \cdot 10^{-5}$	$1.181 \cdot 10^{-5}$	0
$s \bar{s} \rightarrow s \bar{s}$	-0.009508	-0.009508	0	0.0001057	0.0001057	0
$t \bar{t} \rightarrow c \bar{c}$	-0.0005809	-0.0005809	0	$1.579 \cdot 10^{-5}$	$1.579 \cdot 10^{-5}$	0
$t \bar{t} \rightarrow d \bar{d}$	0.0001014	0.0001014	0	$5.362 \cdot 10^{-6}$	$5.362 \cdot 10^{-6}$	0
$t \bar{t} \rightarrow s \bar{s}$	0.0009627	0.0009627	0	$2.694 \cdot 10^{-5}$	$2.694 \cdot 10^{-5}$	0
$u \bar{d} \rightarrow u \bar{d}$	-0.001558	-0.001558	0	0.0001597	0.0001597	0
$u \bar{u} \rightarrow \nu_e \bar{\nu}_e$	-0.0003881	-0.0003881	0	$1.708 \cdot 10^{-5}$	$1.708 \cdot 10^{-5}$	0
$u \bar{u} \rightarrow c \bar{c}$	-0.001024	-0.001024	0	$5.687 \cdot 10^{-5}$	$5.687 \cdot 10^{-5}$	0
$u \bar{u} \rightarrow u \bar{u}$	0.02917	0.02917	0	0.000469	0.000469	0

## 2.21 cHj3

interference

square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^- u \bar{d}$	$3.194 \cdot 10^{-5}$	$3.194 \cdot 10^{-5}$	0	0.0001253	0.0001253	0
$HH \rightarrow z c \bar{c}$	$7.014 \cdot 10^{-6}$	$7.014 \cdot 10^{-6}$	0	$2.563 \cdot 10^{-5}$	$2.563 \cdot 10^{-5}$	0
$HH \rightarrow z d \bar{d}$	$3.231 \cdot 10^{-6}$	$3.231 \cdot 10^{-6}$	0	$4.689 \cdot 10^{-7}$	$4.689 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$7.109 \cdot 10^{-8}$	$7.109 \cdot 10^{-8}$	0	$8.264 \cdot 10^{-8}$	$8.264 \cdot 10^{-8}$	0
$HW^+ \rightarrow u \bar{d}$	0.4348	0.4348	0	2.068	2.068	0
$H z \rightarrow s \bar{s}$	0.1644	0.1644	0	0.7099	0.7099	0
$H z \rightarrow u \bar{u}$	0.09891	0.09891	0	0.5236	0.5236	0
$W^+ W^- \rightarrow H c \bar{c}$	$1.676 \cdot 10^{-7}$	$1.676 \cdot 10^{-7}$	0	$2.367 \cdot 10^{-6}$	$2.367 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-8.884 \cdot 10^{-8}$	$-8.884 \cdot 10^{-8}$	0	$6.238 \cdot 10^{-7}$	$6.238 \cdot 10^{-7}$	0
$\bar{b} t \rightarrow \bar{d} u$	0.0001299	0.0001299	0	$3.938 \cdot 10^{-6}$	$3.938 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow d \bar{d}$	0.001261	0.001261	0	$4.077 \cdot 10^{-5}$	$4.077 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow u \bar{u}$	$3.862 \cdot 10^{-5}$	$3.862 \cdot 10^{-5}$	0	$2.881 \cdot 10^{-6}$	$2.881 \cdot 10^{-6}$	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	$-3.866 \cdot 10^{-5}$	$-3.866 \cdot 10^{-5}$	0	$4.107 \cdot 10^{-6}$	$4.107 \cdot 10^{-6}$	0
$c \bar{s} \rightarrow \tau^+ \nu_\tau$	0.001516	0.001516	0	$4.596 \cdot 10^{-5}$	$4.596 \cdot 10^{-5}$	0
$d \bar{d} \rightarrow c \bar{c}$	0.0001889	0.0001889	0	$1.468 \cdot 10^{-5}$	$1.468 \cdot 10^{-5}$	0
$d \bar{d} \rightarrow e^+ e^-$	0.0001126	0.0001126	0	$3.236 \cdot 10^{-6}$	$3.236 \cdot 10^{-6}$	0
$d \bar{d} \rightarrow s \bar{s}$	$3.837 \cdot 10^{-5}$	$3.837 \cdot 10^{-5}$	0	$3.381 \cdot 10^{-6}$	$3.381 \cdot 10^{-6}$	0
$s \bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.0004418	0.0004418	0	$1.586 \cdot 10^{-5}$	$1.586 \cdot 10^{-5}$	0
$s \bar{s} \rightarrow s \bar{s}$	-0.0001256	-0.0001256	0	$8.366 \cdot 10^{-6}$	$8.366 \cdot 10^{-6}$	0
$t \bar{t} \rightarrow c \bar{c}$	0.0008982	0.0008982	0	$2.345 \cdot 10^{-5}$	$2.345 \cdot 10^{-5}$	0
$t \bar{t} \rightarrow d \bar{d}$	0.0001182	0.0001182	0	$5.609 \cdot 10^{-6}$	$5.609 \cdot 10^{-6}$	0
$t \bar{t} \rightarrow s \bar{s}$	$5.495 \cdot 10^{-5}$	$5.495 \cdot 10^{-5}$	0	$5.738 \cdot 10^{-6}$	$5.738 \cdot 10^{-6}$	0
$u \bar{d} \rightarrow \mu^+ \nu_\mu$	0.0008194	0.0008194	0	$2.484 \cdot 10^{-5}$	$2.484 \cdot 10^{-5}$	0
$u \bar{d} \rightarrow c \bar{s}$	0.007423	0.007423	0	0.00045	0.00045	0
$u \bar{d} \rightarrow u \bar{d}$	$4.671 \cdot 10^{-5}$	$4.671 \cdot 10^{-5}$	0	$9.143 \cdot 10^{-6}$	$9.143 \cdot 10^{-6}$	0
$u \bar{u} \rightarrow \nu_e \bar{\nu}_e$	0.0001606	0.0001606	0	$7.071 \cdot 10^{-6}$	$7.071 \cdot 10^{-6}$	0
$u \bar{u} \rightarrow c \bar{c}$	0.0007241	0.0007241	0	$4.267 \cdot 10^{-5}$	$4.267 \cdot 10^{-5}$	0
$u \bar{u} \rightarrow u \bar{u}$	-0.08805	-0.08805	0	0.007282	0.007282	0

## 2.22 cHl111

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-3.441 \cdot 10^{-7}$	$-3.441 \cdot 10^{-7}$	0	$9.224 \cdot 10^{-8}$	$9.224 \cdot 10^{-8}$	0
$HH \rightarrow ze^+e^-$	$4.082 \cdot 10^{-7}$	$4.082 \cdot 10^{-7}$	0	$1.415 \cdot 10^{-6}$	$1.415 \cdot 10^{-6}$	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.00166	-0.00166	0	$5.031 \cdot 10^{-5}$	$5.031 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	-0.0005437	-0.0005437	0	$1.648 \cdot 10^{-5}$	$1.648 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow e^+e^-$	$-8.661 \cdot 10^{-6}$	$-8.661 \cdot 10^{-6}$	0	$6.64 \cdot 10^{-7}$	$6.64 \cdot 10^{-7}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0.06358	0.06358	0	0.003617	0.003617	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.0005371	-0.0005371	0	$1.651 \cdot 10^{-5}$	$1.651 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	0.00451	0.00451	0	0.0005214	0.0005214	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0003596	-0.0003596	0	$1.199 \cdot 10^{-5}$	$1.199 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.004027	-0.004027	0	0.0001818	0.0001818	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	$-8.203 \cdot 10^{-5}$	$-8.203 \cdot 10^{-5}$	0	$2.487 \cdot 10^{-6}$	$2.487 \cdot 10^{-6}$	0

## 2.23 cHl122

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$H z \rightarrow \mu^+\mu^-$	0.04397	0.04397	0	0.3008	0.3008	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.0009893	0.0009893	0	$1.631 \cdot 10^{-5}$	$1.631 \cdot 10^{-5}$	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.001713	-0.001713	0	$5.193 \cdot 10^{-5}$	$5.193 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	0.0003059	0.0003059	0	$1.144 \cdot 10^{-5}$	$1.144 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-2.257 \cdot 10^{-5}$	$-2.257 \cdot 10^{-5}$	0	$1.924 \cdot 10^{-6}$	$1.924 \cdot 10^{-6}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.0005532	-0.0005532	0	$1.677 \cdot 10^{-5}$	$1.677 \cdot 10^{-5}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0002812	-0.0002812	0	$1.076 \cdot 10^{-5}$	$1.076 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.0001464	-0.0001464	0	$4.438 \cdot 10^{-6}$	$4.438 \cdot 10^{-6}$	0

## 2.24 cHl133

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.03729	-0.03729	0	0.1359	0.1359	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	0.0003526	0.0003526	0	$9.582 \cdot 10^{-6}$	$9.582 \cdot 10^{-6}$	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-1.168	-1.168	0	0.0708	0.0708	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	0.006334	0.006334	0	0.0006421	0.0006421	0
$s \bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-1.828 \cdot 10^{-5}$	$-1.828 \cdot 10^{-5}$	0	$5.541 \cdot 10^{-7}$	$5.541 \cdot 10^{-7}$	0
$t \bar{t} \rightarrow \tau^+ \tau^-$	0.0004085	0.0004085	0	$9.903 \cdot 10^{-6}$	$9.903 \cdot 10^{-6}$	0

## 2.25 cHl311

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	-0.02474	-0.02474	0	0.00075	0.00075	0
$HH \rightarrow HHH$	$-4.599 \cdot 10^{-8}$	$-4.599 \cdot 10^{-8}$	0	$2.091 \cdot 10^{-9}$	$2.091 \cdot 10^{-9}$	0
$HH \rightarrow H \tau^+ \tau^-$	$-9.366 \cdot 10^{-12}$	$-9.366 \cdot 10^{-12}$	0	$4.259 \cdot 10^{-13}$	$4.259 \cdot 10^{-13}$	0
$HH \rightarrow H b \bar{b}$	$-5.754 \cdot 10^{-8}$	$-5.754 \cdot 10^{-8}$	0	$2.616 \cdot 10^{-9}$	$2.616 \cdot 10^{-9}$	0
$HH \rightarrow H s \bar{s}$	$-9.605 \cdot 10^{-14}$	$-9.605 \cdot 10^{-14}$	0	$4.367 \cdot 10^{-15}$	$4.367 \cdot 10^{-15}$	0
$HH \rightarrow H t \bar{t}$	$-9.14 \cdot 10^{-6}$	$-9.14 \cdot 10^{-6}$	0	$4.156 \cdot 10^{-7}$	$4.156 \cdot 10^{-7}$	0
$HH \rightarrow H u \bar{u}$	$-2.754 \cdot 10^{-17}$	$-2.754 \cdot 10^{-17}$	0	$1.252 \cdot 10^{-18}$	$1.252 \cdot 10^{-18}$	0
$HH \rightarrow H z z$	$-1.212 \cdot 10^{-5}$	$-1.212 \cdot 10^{-5}$	0	$5.509 \cdot 10^{-7}$	$5.509 \cdot 10^{-7}$	0
$HH \rightarrow W^+ W^-$	-0.3182	-0.3182	0	0.2508	0.2508	0
$HH \rightarrow W^+ W^- \gamma$	$-1.278 \cdot 10^{-6}$	$-1.278 \cdot 10^{-6}$	0	$7.209 \cdot 10^{-7}$	$7.209 \cdot 10^{-7}$	0
$HH \rightarrow W^+ t \bar{b}$	$-1.533 \cdot 10^{-6}$	$-1.533 \cdot 10^{-6}$	0	$9.595 \cdot 10^{-8}$	$9.595 \cdot 10^{-8}$	0
$HH \rightarrow W^+ e^- \bar{\nu}_e$	$2.687 \cdot 10^{-7}$	$2.687 \cdot 10^{-7}$	0	$5.971 \cdot 10^{-7}$	$5.971 \cdot 10^{-7}$	0
$HH \rightarrow W^- u \bar{d}$	$-3.245 \cdot 10^{-7}$	$-3.245 \cdot 10^{-7}$	0	$2.642 \cdot 10^{-8}$	$2.642 \cdot 10^{-8}$	0
$HH \rightarrow z b \bar{b}$	$-7.835 \cdot 10^{-8}$	$-7.835 \cdot 10^{-8}$	0	$4.196 \cdot 10^{-9}$	$4.196 \cdot 10^{-9}$	0

$HH \rightarrow z\nu_e\bar{\nu}_e$	$8.156 \cdot 10^{-7}$	$8.156 \cdot 10^{-7}$	0	$1.046 \cdot 10^{-6}$	$1.046 \cdot 10^{-6}$	0
$HH \rightarrow z c\bar{c}$	$-5.67 \cdot 10^{-8}$	$-5.67 \cdot 10^{-8}$	0	$3.677 \cdot 10^{-9}$	$3.677 \cdot 10^{-9}$	0
$HH \rightarrow z d\bar{d}$	$-3.279 \cdot 10^{-7}$	$-3.279 \cdot 10^{-7}$	0	$1.752 \cdot 10^{-8}$	$1.752 \cdot 10^{-8}$	0
$HH \rightarrow z e^+ e^-$	$1.356 \cdot 10^{-7}$	$1.356 \cdot 10^{-7}$	0	$1.152 \cdot 10^{-7}$	$1.152 \cdot 10^{-7}$	0
$HH \rightarrow z t\bar{t}$	$-6.717 \cdot 10^{-6}$	$-6.717 \cdot 10^{-6}$	0	$3.162 \cdot 10^{-7}$	$3.162 \cdot 10^{-7}$	0
$HH \rightarrow z z$	-0.06269	-0.06269	0	0.0019	0.0019	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-1.18 \cdot 10^{-7}$	$-1.18 \cdot 10^{-7}$	0	$7.658 \cdot 10^{-9}$	$7.658 \cdot 10^{-9}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-4.556 \cdot 10^{-7}$	$-4.556 \cdot 10^{-7}$	0	$2.289 \cdot 10^{-8}$	$2.289 \cdot 10^{-8}$	0
$HW^+ \rightarrow u\bar{d}$	-0.00455	-0.00455	0	0.0002286	0.0002286	0
$HW^- \rightarrow \bar{t}b$	-0.5289	-0.5289	0	0.03767	0.03767	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$1.149 \cdot 10^{-8}$	$1.149 \cdot 10^{-8}$	0	$3.92 \cdot 10^{-8}$	$3.92 \cdot 10^{-8}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	-0.0009451	-0.0009451	0	$4.748 \cdot 10^{-5}$	$4.748 \cdot 10^{-5}$	0
$H\gamma \rightarrow b\bar{b}$	$-7.212 \cdot 10^{-6}$	$-7.212 \cdot 10^{-6}$	0	$1.093 \cdot 10^{-7}$	$1.093 \cdot 10^{-7}$	0
$H\gamma \rightarrow c\bar{c}$	$-3.611 \cdot 10^{-6}$	$-3.611 \cdot 10^{-6}$	0	$5.473 \cdot 10^{-8}$	$5.473 \cdot 10^{-8}$	0
$H\gamma \rightarrow d\bar{d}$	$-1.114 \cdot 10^{-11}$	$-1.114 \cdot 10^{-11}$	0	$1.688 \cdot 10^{-13}$	$1.688 \cdot 10^{-13}$	0
$H\gamma \rightarrow e^+ e^-$	$-2.059 \cdot 10^{-13}$	$-2.059 \cdot 10^{-13}$	0	$3.12 \cdot 10^{-15}$	$3.12 \cdot 10^{-15}$	0
$H\gamma \rightarrow t\bar{t}$	-0.03109	-0.03109	0	0.0004711	0.0004711	0
$H z \rightarrow \mu^+ \mu^-$	-0.0003653	-0.0003653	0	$3.027 \cdot 10^{-5}$	$3.027 \cdot 10^{-5}$	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.0002844	-0.0002844	0	$8.621 \cdot 10^{-6}$	$8.621 \cdot 10^{-6}$	0
$H z \rightarrow b\bar{b}$	-0.002056	-0.002056	0	$8.047 \cdot 10^{-5}$	$8.047 \cdot 10^{-5}$	0
$H z \rightarrow s\bar{s}$	-0.001077	-0.001077	0	$4.198 \cdot 10^{-5}$	$4.198 \cdot 10^{-5}$	0
$H z \rightarrow t\bar{t}$	-0.3183	-0.3183	0	0.01092	0.01092	0
$H z \rightarrow u\bar{u}$	-0.0009977	-0.0009977	0	$5.354 \cdot 10^{-5}$	$5.354 \cdot 10^{-5}$	0
$W^+ W^- \rightarrow H b\bar{b}$	$-4.184 \cdot 10^{-6}$	$-4.184 \cdot 10^{-6}$	0	$4.268 \cdot 10^{-7}$	$4.268 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H c\bar{c}$	$-7.422 \cdot 10^{-7}$	$-7.422 \cdot 10^{-7}$	0	$6.206 \cdot 10^{-8}$	$6.206 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H d\bar{d}$	$-9.027 \cdot 10^{-7}$	$-9.027 \cdot 10^{-7}$	0	$7.694 \cdot 10^{-8}$	$7.694 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H t\bar{t}$	$-3.063 \cdot 10^{-5}$	$-3.063 \cdot 10^{-5}$	0	$2.99 \cdot 10^{-6}$	$2.99 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow W^+ W^-$	-7.395	-7.395	0	0.5402	0.5402	0
$\bar{b}t \rightarrow \bar{d}u$	-0.0002268	-0.0002268	0	$9.888 \cdot 10^{-6}$	$9.888 \cdot 10^{-6}$	0

$\gamma W^+ \rightarrow z W^+$	-18.65	-18.65	0	0.5303	0.5303	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$-3.801 \cdot 10^{-7}$	$-3.801 \cdot 10^{-7}$	0	$1.29 \cdot 10^{-5}$	$1.29 \cdot 10^{-5}$	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.02845	-0.02845	0	0.0008625	0.0008625	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	$1.652 \cdot 10^{-19}$	$1.652 \cdot 10^{-19}$	0	$9.404 \cdot 10^{-37}$	$9.404 \cdot 10^{-37}$	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$1.338 \cdot 10^{-5}$	$1.338 \cdot 10^{-5}$	0	$2.744 \cdot 10^{-7}$	$2.744 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	$-6.892 \cdot 10^{-5}$	$-6.892 \cdot 10^{-5}$	0	$6.806 \cdot 10^{-7}$	$6.806 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.048	0.048	0	0.001224	0.001224	0
$b\bar{b} \rightarrow d\bar{d}$	-0.0003365	-0.0003365	0	$1.426 \cdot 10^{-5}$	$1.426 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.03876	-0.03876	0	0.004421	0.004421	0
$b\bar{b} \rightarrow u\bar{u}$	-0.0004637	-0.0004637	0	$2.202 \cdot 10^{-5}$	$2.202 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-2.472 \cdot 10^{-5}$	$-2.472 \cdot 10^{-5}$	0	$3.284 \cdot 10^{-7}$	$3.284 \cdot 10^{-7}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	-0.0004995	-0.0004995	0	$2.527 \cdot 10^{-5}$	$2.527 \cdot 10^{-5}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	-0.001352	-0.001352	0	$5.896 \cdot 10^{-5}$	$5.896 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.001845	-0.001845	0	$8.682 \cdot 10^{-5}$	$8.682 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow e^+ e^-$	$-6.837 \cdot 10^{-5}$	$-6.837 \cdot 10^{-5}$	0	$1.377 \cdot 10^{-6}$	$1.377 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow s\bar{s}$	-0.001008	-0.001008	0	$4.243 \cdot 10^{-5}$	$4.243 \cdot 10^{-5}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0.0007891	0.0007891	0	$2.49 \cdot 10^{-5}$	$2.49 \cdot 10^{-5}$	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	-0.0001616	-0.0001616	0	$2.147 \cdot 10^{-6}$	$2.147 \cdot 10^{-6}$	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	0.003818	0.003818	0	0.0001251	0.0001251	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	-0.0002584	-0.0002584	0	$3.288 \cdot 10^{-5}$	$3.288 \cdot 10^{-5}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	-0.0001685	-0.0001685	0	$2.341 \cdot 10^{-5}$	$2.341 \cdot 10^{-5}$	0
$e^+ e^- \rightarrow e^+ e^-$	-0.003977	-0.003977	0	0.000306	0.000306	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-3.668 \cdot 10^{-5}$	$-3.668 \cdot 10^{-5}$	0	$1.649 \cdot 10^{-6}$	$1.649 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.01147	0.01147	0	$9.281 \cdot 10^{-5}$	$9.281 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0003617	-0.0003617	0	$1.874 \cdot 10^{-5}$	$1.874 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-4.949 \cdot 10^{-6}$	$-4.949 \cdot 10^{-6}$	0	$1.59 \cdot 10^{-6}$	$1.59 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.0009539	-0.0009539	0	$4.475 \cdot 10^{-5}$	$4.475 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	-0.001085	-0.001085	0	$5.166 \cdot 10^{-5}$	$5.166 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.001226	-0.001226	0	$5.826 \cdot 10^{-5}$	$5.826 \cdot 10^{-5}$	0

$t\bar{t} \rightarrow t\bar{t}$	0.942	0.942	0	0.02759	0.02759	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-4.605 \cdot 10^{-5}$	$-4.605 \cdot 10^{-5}$	0	$2.008 \cdot 10^{-6}$	$2.008 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.0001451	-0.0001451	0	$6.327 \cdot 10^{-6}$	$6.327 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.03642	0.03642	0	0.00171	0.00171	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0002038	-0.0002038	0	$4.057 \cdot 10^{-6}$	$4.057 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.000247	-0.000247	0	$1.216 \cdot 10^{-5}$	$1.216 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.02874	0.02874	0	0.0005511	0.0005511	0
$zz \rightarrow W^+W^-$	-7.981	-7.981	0	0.3856	0.3856	0
$zz \rightarrow zz$	-0.009172	-0.009172	0	0.000278	0.000278	0

## 2.26 cHI322

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	-0.000822	-0.000822	0	$2.492 \cdot 10^{-5}$	$2.492 \cdot 10^{-5}$	0
$HH \rightarrow HHH$	$-1.418 \cdot 10^{-8}$	$-1.418 \cdot 10^{-8}$	0	$6.449 \cdot 10^{-10}$	$6.449 \cdot 10^{-10}$	0
$HH \rightarrow H\tau^+\tau^-$	$-8.658 \cdot 10^{-12}$	$-8.658 \cdot 10^{-12}$	0	$3.937 \cdot 10^{-13}$	$3.937 \cdot 10^{-13}$	0
$HH \rightarrow Hb\bar{b}$	$-2.59 \cdot 10^{-10}$	$-2.59 \cdot 10^{-10}$	0	$1.178 \cdot 10^{-11}$	$1.178 \cdot 10^{-11}$	0
$HH \rightarrow Hs\bar{s}$	$-8.299 \cdot 10^{-14}$	$-8.299 \cdot 10^{-14}$	0	$3.774 \cdot 10^{-15}$	$3.774 \cdot 10^{-15}$	0
$HH \rightarrow Ht\bar{t}$	$-1.433 \cdot 10^{-6}$	$-1.433 \cdot 10^{-6}$	0	$6.515 \cdot 10^{-8}$	$6.515 \cdot 10^{-8}$	0
$HH \rightarrow Hu\bar{u}$	$-5.761 \cdot 10^{-17}$	$-5.761 \cdot 10^{-17}$	0	$2.619 \cdot 10^{-18}$	$2.619 \cdot 10^{-18}$	0
$HH \rightarrow Hzz$	$-1.232 \cdot 10^{-6}$	$-1.232 \cdot 10^{-6}$	0	$5.603 \cdot 10^{-8}$	$5.603 \cdot 10^{-8}$	0
$HH \rightarrow W^+W^-$	-0.3937	-0.3937	0	0.2587	0.2587	0
$HH \rightarrow W^+W^-\gamma$	$3.96 \cdot 10^{-8}$	$3.96 \cdot 10^{-8}$	0	$8.277 \cdot 10^{-8}$	$8.277 \cdot 10^{-8}$	0
$HH \rightarrow W^+t\bar{b}$	-0.001712	-0.001712	0	0.0001062	0.0001062	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-5.37 \cdot 10^{-8}$	$-5.37 \cdot 10^{-8}$	0	$5.518 \cdot 10^{-9}$	$5.518 \cdot 10^{-9}$	0
$HH \rightarrow W^-u\bar{d}$	$-2.333 \cdot 10^{-6}$	$-2.333 \cdot 10^{-6}$	0	$4.218 \cdot 10^{-7}$	$4.218 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$-6.06 \cdot 10^{-8}$	$-6.06 \cdot 10^{-8}$	0	$3.259 \cdot 10^{-9}$	$3.259 \cdot 10^{-9}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-7.29 \cdot 10^{-8}$	$-7.29 \cdot 10^{-8}$	0	$3.314 \cdot 10^{-9}$	$3.314 \cdot 10^{-9}$	0

$HH \rightarrow zc\bar{c}$	$-6.173 \cdot 10^{-8}$	$-6.173 \cdot 10^{-8}$	0	$4.002 \cdot 10^{-9}$	$4.002 \cdot 10^{-9}$	0
$HH \rightarrow zd\bar{d}$	-0.0001753	-0.0001753	0	$9.369 \cdot 10^{-6}$	$9.369 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$-3.59 \cdot 10^{-8}$	$-3.59 \cdot 10^{-8}$	0	$2.954 \cdot 10^{-9}$	$2.954 \cdot 10^{-9}$	0
$HH \rightarrow zt\bar{t}$	$-1.957 \cdot 10^{-6}$	$-1.957 \cdot 10^{-6}$	0	$9.605 \cdot 10^{-8}$	$9.605 \cdot 10^{-8}$	0
$HH \rightarrow zz$	-0.01546	-0.01546	0	0.0004685	0.0004685	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-4.28 \cdot 10^{-7}$	$-4.28 \cdot 10^{-7}$	0	$2.602 \cdot 10^{-8}$	$2.602 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.797 \cdot 10^{-9}$	$-1.797 \cdot 10^{-9}$	0	$9.026 \cdot 10^{-11}$	$9.026 \cdot 10^{-11}$	0
$HW^+ \rightarrow u\bar{d}$	-0.002987	-0.002987	0	0.0001501	0.0001501	0
$HW^- \rightarrow t\bar{b}$	-2.495	-2.495	0	0.1242	0.1242	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-1.408 \cdot 10^{-9}$	$-1.408 \cdot 10^{-9}$	0	$7.072 \cdot 10^{-11}$	$7.072 \cdot 10^{-11}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	0.1254	0.1254	0	0.5905	0.5905	0
$H\gamma \rightarrow b\bar{b}$	$-8.089 \cdot 10^{-6}$	$-8.089 \cdot 10^{-6}$	0	$1.226 \cdot 10^{-7}$	$1.226 \cdot 10^{-7}$	0
$H\gamma \rightarrow c\bar{c}$	$-1.751 \cdot 10^{-6}$	$-1.751 \cdot 10^{-6}$	0	$2.654 \cdot 10^{-8}$	$2.654 \cdot 10^{-8}$	0
$H\gamma \rightarrow d\bar{d}$	$-1.557 \cdot 10^{-11}$	$-1.557 \cdot 10^{-11}$	0	$2.359 \cdot 10^{-13}$	$2.359 \cdot 10^{-13}$	0
$H\gamma \rightarrow e^+e^-$	$-4.746 \cdot 10^{-13}$	$-4.746 \cdot 10^{-13}$	0	$7.193 \cdot 10^{-15}$	$7.193 \cdot 10^{-15}$	0
$H\gamma \rightarrow t\bar{t}$	-0.0337	-0.0337	0	0.0005108	0.0005108	0
$H z \rightarrow \mu^+\mu^-$	0.04924	0.04924	0	0.333	0.333	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	-0.0007968	-0.0007968	0	$2.415 \cdot 10^{-5}$	$2.415 \cdot 10^{-5}$	0
$H z \rightarrow b\bar{b}$	-0.002114	-0.002114	0	$8.272 \cdot 10^{-5}$	$8.272 \cdot 10^{-5}$	0
$H z \rightarrow s\bar{s}$	-0.00105	-0.00105	0	$4.093 \cdot 10^{-5}$	$4.093 \cdot 10^{-5}$	0
$H z \rightarrow t\bar{t}$	-0.4147	-0.4147	0	0.01415	0.01415	0
$H z \rightarrow u\bar{u}$	-0.0008238	-0.0008238	0	$4.421 \cdot 10^{-5}$	$4.421 \cdot 10^{-5}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$-3.462 \cdot 10^{-5}$	$-3.462 \cdot 10^{-5}$	0	$2.632 \cdot 10^{-6}$	$2.632 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-2.382 \cdot 10^{-7}$	$-2.382 \cdot 10^{-7}$	0	$2.002 \cdot 10^{-8}$	$2.002 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-1.822 \cdot 10^{-6}$	$-1.822 \cdot 10^{-6}$	0	$1.48 \cdot 10^{-7}$	$1.48 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-1.89 \cdot 10^{-5}$	$-1.89 \cdot 10^{-5}$	0	$1.816 \cdot 10^{-6}$	$1.816 \cdot 10^{-6}$	0
$W^+W^- \rightarrow W^+W^-$	-2.224	-2.224	0	0.1262	0.1262	0
$\bar{b}t \rightarrow \bar{d}u$	-0.003784	-0.003784	0	0.000165	0.000165	0
$\gamma W^+ \rightarrow zW^+$	-0.07086	-0.07086	0	0.002015	0.002015	0



$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$-4.689 \cdot 10^{-5}$	$-4.689 \cdot 10^{-5}$	0	$6.052 \cdot 10^{-6}$	$6.052 \cdot 10^{-6}$	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.0005071	-0.0005071	0	$1.537 \cdot 10^{-5}$	$1.537 \cdot 10^{-5}$	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	$9.043 \cdot 10^{-20}$	$9.043 \cdot 10^{-20}$	0	$5.29 \cdot 10^{-37}$	$5.29 \cdot 10^{-37}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-2.336 \cdot 10^{-5}$	$-2.336 \cdot 10^{-5}$	0	$5.451 \cdot 10^{-7}$	$5.451 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	-0.0002607	-0.0002607	0	$1.006 \cdot 10^{-5}$	$1.006 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.03467	0.03467	0	0.0005638	0.0005638	0
$b\bar{b} \rightarrow d\bar{d}$	$-4.665 \cdot 10^{-5}$	$-4.665 \cdot 10^{-5}$	0	$2.179 \cdot 10^{-6}$	$2.179 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.128	-0.128	0	0.01027	0.01027	0
$b\bar{b} \rightarrow u\bar{u}$	-0.001373	-0.001373	0	$6.46 \cdot 10^{-5}$	$6.46 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	-0.001068	-0.001068	0	$4.658 \cdot 10^{-5}$	$4.658 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-2.609 \cdot 10^{-5}$	$-2.609 \cdot 10^{-5}$	0	$7.386 \cdot 10^{-7}$	$7.386 \cdot 10^{-7}$	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	-0.000403	-0.000403	0	$1.757 \cdot 10^{-5}$	$1.757 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.001389	-0.001389	0	$6.537 \cdot 10^{-5}$	$6.537 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow e^+e^-$	-0.0004196	-0.0004196	0	$2.26 \cdot 10^{-5}$	$2.26 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow s\bar{s}$	-0.001917	-0.001917	0	$8.067 \cdot 10^{-5}$	$8.067 \cdot 10^{-5}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0.004213	0.004213	0	0.0009711	0.0009711	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	-0.00139	-0.00139	0	$1.847 \cdot 10^{-5}$	$1.847 \cdot 10^{-5}$	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.001381	-0.001381	0	$9.955 \cdot 10^{-5}$	$9.955 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	0.0005866	0.0005866	0	$5.146 \cdot 10^{-5}$	$5.146 \cdot 10^{-5}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0001049	-0.0001049	0	$1.45 \cdot 10^{-5}$	$1.45 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	0.001031	0.001031	0	$1.439 \cdot 10^{-5}$	$1.439 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-7.409 \cdot 10^{-6}$	$-7.409 \cdot 10^{-6}$	0	$5.986 \cdot 10^{-7}$	$5.986 \cdot 10^{-7}$	0
$s\bar{s} \rightarrow s\bar{s}$	$1.193 \cdot 10^{-5}$	$1.193 \cdot 10^{-5}$	0	$1.492 \cdot 10^{-7}$	$1.492 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	$2.154 \cdot 10^{-5}$	$2.154 \cdot 10^{-5}$	0	$3.08 \cdot 10^{-6}$	$3.08 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-4.527 \cdot 10^{-5}$	$-4.527 \cdot 10^{-5}$	0	$3.198 \cdot 10^{-6}$	$3.198 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.0001886	-0.0001886	0	$9.19 \cdot 10^{-6}$	$9.19 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow d\bar{d}$	-0.00149	-0.00149	0	$7.065 \cdot 10^{-5}$	$7.065 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.001694	-0.001694	0	$8.021 \cdot 10^{-5}$	$8.021 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.04869	0.04869	0	0.003648	0.003648	0

$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-6.549 \cdot 10^{-8}$	$-6.549 \cdot 10^{-8}$	0	$8.701 \cdot 10^{-10}$	$8.701 \cdot 10^{-10}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.003541	-0.003541	0	0.0001544	0.0001544	0
$u\bar{d} \rightarrow u\bar{d}$	0.01477	0.01477	0	0.0004775	0.0004775	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0001306	-0.0001306	0	$7.097 \cdot 10^{-6}$	$7.097 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.0007758	-0.0007758	0	$3.673 \cdot 10^{-5}$	$3.673 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.005304	0.005304	0	$4.289 \cdot 10^{-5}$	$4.289 \cdot 10^{-5}$	0
$zz \rightarrow W^+W^-$	-934.3	-934.3	0	53.08	53.08	0
$zz \rightarrow zz$	-0.009888	-0.009888	0	0.0002997	0.0002997	0

## 2.27 cHl333

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	0.09438	0.09438	0	0.3441	0.3441	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	-0.0001449	-0.0001449	0	$9.387 \cdot 10^{-6}$	$9.387 \cdot 10^{-6}$	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	$2.175 \cdot 10^{-11}$	$2.175 \cdot 10^{-11}$	0	$1.319 \cdot 10^{-12}$	$1.319 \cdot 10^{-12}$	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	0.0005761	0.0005761	0	$1.746 \cdot 10^{-5}$	$1.746 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.0008265	-0.0008265	0	$4.099 \cdot 10^{-5}$	$4.099 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$3.052 \cdot 10^{-5}$	$3.052 \cdot 10^{-5}$	0	$9.252 \cdot 10^{-7}$	$9.252 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0.000147	0.000147	0	$4.147 \cdot 10^{-6}$	$4.147 \cdot 10^{-6}$	0

## 2.28 cHt

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow z t \bar{t}$	$1.451 \cdot 10^{-6}$	$1.451 \cdot 10^{-6}$	0	$1.502 \cdot 10^{-5}$	$1.502 \cdot 10^{-5}$	0
$H z \rightarrow t \bar{t}$	-2.239	-2.239	0	1.493	1.493	0
$W^+W^- \rightarrow H t \bar{t}$	$-2.004 \cdot 10^{-6}$	$-2.004 \cdot 10^{-6}$	0	$1.267 \cdot 10^{-6}$	$1.267 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow t \bar{t}$	-0.001287	-0.001287	0	$1.456 \cdot 10^{-5}$	$1.456 \cdot 10^{-5}$	0

$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	0.0001722	0.0001722	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$4.926 \cdot 10^{-5}$	$4.926 \cdot 10^{-5}$	0	$3.102 \cdot 10^{-6}$	$3.102 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-2.865 \cdot 10^{-5}$	$-2.865 \cdot 10^{-5}$	0	$1.269 \cdot 10^{-5}$	$1.269 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	0	$1.054 \cdot 10^{-5}$	$1.054 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	$8.206 \cdot 10^{-5}$	$8.206 \cdot 10^{-5}$	0	$2.917 \cdot 10^{-5}$	$2.917 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	-0.1476	-0.1476	0	0.0098	0.0098	0

## 2.29 cHtbIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$2.558 \cdot 10^{-8}$	$2.558 \cdot 10^{-8}$	0	$1.92 \cdot 10^{-6}$	$1.92 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-2.067 \cdot 10^{-8}$	$-2.067 \cdot 10^{-8}$	0	$6.292 \cdot 10^{-6}$	$6.292 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	$-7.782 \cdot 10^{-6}$	$-7.782 \cdot 10^{-6}$	0	0.4346	0.4346	0
$W^+ W^- \rightarrow H b \bar{b}$	$-8.58 \cdot 10^{-7}$	$-8.58 \cdot 10^{-7}$	0	$5.351 \cdot 10^{-7}$	$5.351 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-2.667 \cdot 10^{-7}$	$-2.667 \cdot 10^{-7}$	0	$4.703 \cdot 10^{-9}$	$4.703 \cdot 10^{-9}$	0
$\bar{b}t \rightarrow \bar{d}u$	$-6.44 \cdot 10^{-22}$	$-6.44 \cdot 10^{-22}$	0	$3.015 \cdot 10^{-5}$	$3.015 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	$3.375 \cdot 10^{-20}$	$1.855 \cdot 10^{-20}$	0.4504	0.0006015	0.0006015	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-3.59 \cdot 10^{-22}$	$-3.59 \cdot 10^{-22}$	0	$1.915 \cdot 10^{-6}$	$1.915 \cdot 10^{-6}$	0

## 2.30 cHtbRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$-1.158 \cdot 10^{-7}$	$-1.158 \cdot 10^{-7}$	0	$5.49 \cdot 10^{-6}$	$5.49 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-1.309 \cdot 10^{-7}$	$-1.309 \cdot 10^{-7}$	0	$2.099 \cdot 10^{-7}$	$2.099 \cdot 10^{-7}$	0
$HW^- \rightarrow \bar{t}b$	-0.01915	-0.01915	0	0.03724	0.03724	0
$W^+ W^- \rightarrow H b \bar{b}$	$-2.418 \cdot 10^{-8}$	$-2.418 \cdot 10^{-8}$	0	$2.081 \cdot 10^{-7}$	$2.081 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-1.901 \cdot 10^{-7}$	$-1.901 \cdot 10^{-7}$	0	$1.2 \cdot 10^{-9}$	$1.2 \cdot 10^{-9}$	0

$\bar{b}t \rightarrow \bar{d}u$	$-1.96 \cdot 10^{-6}$	$-1.96 \cdot 10^{-6}$	0	$1.102 \cdot 10^{-6}$	$1.102 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow t\bar{t}$	0.00165	0.00165	0	0.01046	0.01046	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-6.534 \cdot 10^{-7}$	$-6.534 \cdot 10^{-7}$	0	$1.689 \cdot 10^{-6}$	$1.689 \cdot 10^{-6}$	0

### 2.31 cHu

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z c \bar{c}$	$3.17 \cdot 10^{-6}$	$3.17 \cdot 10^{-6}$	0	$2.564 \cdot 10^{-5}$	$2.564 \cdot 10^{-5}$	0
$H z \rightarrow u \bar{u}$	0.04473	0.04473	0	0.5236	0.5236	0
$W^+ W^- \rightarrow H c \bar{c}$	$7.188 \cdot 10^{-7}$	$7.188 \cdot 10^{-7}$	0	$1.626 \cdot 10^{-6}$	$1.626 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow u \bar{u}$	0.0001386	0.0001386	0	$3.317 \cdot 10^{-5}$	$3.317 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-9.674 \cdot 10^{-5}$	$-9.674 \cdot 10^{-5}$	0	$5.298 \cdot 10^{-6}$	$5.298 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow c \bar{c}$	0.0001222	0.0001222	0	$2.878 \cdot 10^{-5}$	$2.878 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow c \bar{c}$	0.0001941	0.0001941	0	$5.153 \cdot 10^{-6}$	$5.153 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.000203	0.000203	0	$5.07 \cdot 10^{-5}$	$5.07 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$4.891 \cdot 10^{-5}$	$4.891 \cdot 10^{-5}$	0	$4.76 \cdot 10^{-6}$	$4.76 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow c \bar{c}$	0.0001118	0.0001118	0	$2.185 \cdot 10^{-5}$	$2.185 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u \bar{u}$	-0.08705	-0.08705	0	0.005673	0.005673	0

### 2.32 cHudIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^- u \bar{d}$	$7.788 \cdot 10^{-26}$	$7.788 \cdot 10^{-26}$	$-1.335 \cdot 10^{-6}$	$1.911 \cdot 10^{-25}$	$1.911 \cdot 10^{-25}$	$-2.669 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u \bar{d}$	$4.159 \cdot 10^{-27}$	$4.159 \cdot 10^{-27}$	$-1.346 \cdot 10^{-6}$	$4.118 \cdot 10^{-27}$	$4.118 \cdot 10^{-27}$	$-2.647 \cdot 10^{-6}$
$HW^+ \rightarrow u \bar{d}$	$3.735 \cdot 10^{-23}$	$3.735 \cdot 10^{-23}$	$-1.339 \cdot 10^{-6}$	$5.092 \cdot 10^{-20}$	$5.092 \cdot 10^{-20}$	$-2.651 \cdot 10^{-6}$
$W^+ W^- \rightarrow H c \bar{c}$	$-4.172 \cdot 10^{-19}$	$-4.172 \cdot 10^{-19}$	$4.554 \cdot 10^{-7}$	$2.161 \cdot 10^{-24}$	$2.161 \cdot 10^{-24}$	$9.257 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d \bar{d}$	$-1.119 \cdot 10^{-24}$	$-1.119 \cdot 10^{-24}$	$-1.341 \cdot 10^{-6}$	$3.111 \cdot 10^{-35}$	$3.111 \cdot 10^{-35}$	$-2.668 \cdot 10^{-6}$

$\bar{b}t \rightarrow \bar{d}u$	$-6.887 \cdot 10^{-40}$	$-6.887 \cdot 10^{-40}$	$8.68 \cdot 10^{-5}$	$1.939 \cdot 10^{-24}$	$1.939 \cdot 10^{-24}$	$-2.681 \cdot 10^{-6}$
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$-2.321 \cdot 10^{-33}$	$2.52 \cdot 10^{-31}$	109.6	$1.868 \cdot 10^{-16}$	$1.868 \cdot 10^{-16}$	$9.634 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-5.472 \cdot 10^{-40}$	$1.66 \cdot 10^{-40}$	1.303	$3.891 \cdot 10^{-25}$	$3.891 \cdot 10^{-25}$	$-2.673 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$1.315 \cdot 10^{-31}$	$1.424 \cdot 10^{-31}$	-0.08333	$2.107 \cdot 10^{-16}$	$2.107 \cdot 10^{-16}$	$9.492 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.17 \cdot 10^{-36}$	$-1.287 \cdot 10^{-36}$	-0.09975	$1.944 \cdot 10^{-24}$	$1.944 \cdot 10^{-24}$	$-2.675 \cdot 10^{-6}$

### 2.33 cHudRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^-u\bar{d}$	$-9.859 \cdot 10^{-24}$	$-9.859 \cdot 10^{-24}$	$-1.329 \cdot 10^{-6}$	$9.534 \cdot 10^{-25}$	$9.534 \cdot 10^{-25}$	$-2.664 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u\bar{d}$	$-5.132 \cdot 10^{-26}$	$-5.132 \cdot 10^{-26}$	$-1.344 \cdot 10^{-6}$	$3.944 \cdot 10^{-27}$	$3.944 \cdot 10^{-27}$	$-2.662 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$-2.344 \cdot 10^{-19}$	$-2.344 \cdot 10^{-19}$	$-1.365 \cdot 10^{-6}$	$2.085 \cdot 10^{-20}$	$2.085 \cdot 10^{-20}$	$-2.685 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$-3.498 \cdot 10^{-17}$	$-3.498 \cdot 10^{-17}$	$4.86 \cdot 10^{-7}$	$4.845 \cdot 10^{-24}$	$4.845 \cdot 10^{-24}$	$9.288 \cdot 10^{-7}$
$W^+W^- \rightarrow Hd\bar{d}$	$-1.083 \cdot 10^{-25}$	$-1.083 \cdot 10^{-25}$	$-1.385 \cdot 10^{-6}$	$4.555 \cdot 10^{-36}$	$4.555 \cdot 10^{-36}$	$-2.679 \cdot 10^{-6}$
$\bar{b}t \rightarrow \bar{d}u$	$3.298 \cdot 10^{-21}$	$3.298 \cdot 10^{-21}$	$-1.334 \cdot 10^{-6}$	$2.938 \cdot 10^{-24}$	$2.938 \cdot 10^{-24}$	$-2.655 \cdot 10^{-6}$
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$-4.004 \cdot 10^{-16}$	$-4.004 \cdot 10^{-16}$	$4.745 \cdot 10^{-7}$	$6.806 \cdot 10^{-17}$	$6.806 \cdot 10^{-17}$	$9.55 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-3.037 \cdot 10^{-24}$	$-3.037 \cdot 10^{-24}$	$-1.35 \cdot 10^{-6}$	$1.315 \cdot 10^{-25}$	$1.315 \cdot 10^{-25}$	$-2.662 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$-1.249 \cdot 10^{-15}$	$-1.249 \cdot 10^{-15}$	$4.803 \cdot 10^{-7}$	$7.031 \cdot 10^{-17}$	$7.031 \cdot 10^{-17}$	$9.386 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.542 \cdot 10^{-20}$	$-1.542 \cdot 10^{-20}$	$-1.362 \cdot 10^{-6}$	$2.946 \cdot 10^{-24}$	$2.946 \cdot 10^{-24}$	$-2.682 \cdot 10^{-6}$

### 2.34 cQQ1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow b\bar{b}$	-10.52	-10.52	0	7.316	7.316	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0201	-0.0201	0	0.005547	0.005547	0
$t\bar{t} \rightarrow t\bar{t}$	-0.09334	-0.09334	0	1.974	1.974	0

### 2.35 cQQ8

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-0.2961	-0.2961	0	0.3125	0.3125	$-3.2 \cdot 10^{-8}$
$b\bar{b} \rightarrow t\bar{t}$	0.09824	0.09824	$1.018 \cdot 10^{-8}$	0.1353	0.1353	0
$t\bar{t} \rightarrow t\bar{t}$	-7.599	-7.599	$-1.316 \cdot 10^{-8}$	2.947	2.947	0

### 2.36 cQb1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	0.04218	0.04218	0	2.583	2.583	0
$b\bar{b} \rightarrow t\bar{t}$	-0.001937	-0.001937	0	0.01399	0.01399	0

### 2.37 cQb8

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-2.032	-2.032	0	0.5758	0.5758	0
$b\bar{b} \rightarrow t\bar{t}$	0.5205	0.5205	0	0.1691	0.1691	0

### 2.38 cQd1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	-0.00994	-0.00994	0	0.6836	0.6836	0
$t\bar{t} \rightarrow d\bar{d}$	-0.004483	-0.004483	0	0.1987	0.1987	0

$t\bar{t} \rightarrow s\bar{s}$	-0.009813	-0.009813	0	0.5796	0.5796	0
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### 2.39 cQd8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow d\bar{d}$	0.4654	0.4654	0	0.1571	0.1571	0
$t\bar{t} \rightarrow d\bar{d}$	0.03152	0.03152	0	0.004003	0.004003	0
$t\bar{t} \rightarrow s\bar{s}$	0.02339	0.02339	0	0.001261	0.001261	0

### 2.40 cQe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+\mu^-$	-0.01149	-0.01149	0	0.2633	0.2633	0

### 2.41 cQe33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.008618	-0.008618	0	0.1647	0.1647	0

### 2.42 cQj11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow d\bar{d}$	0.1683	0.1683	0	0.7683	0.7683	0
$b\bar{b} \rightarrow u\bar{u}$	-0.06625	-0.06625	0	0.324	0.324	0

$t\bar{t} \rightarrow c\bar{c}$	0.1605	0.1605	0	0.7307	0.7307	0
$t\bar{t} \rightarrow d\bar{d}$	$9.079 \cdot 10^{-5}$	$9.079 \cdot 10^{-5}$	0	0.003801	0.003801	0
$t\bar{t} \rightarrow s\bar{s}$	-0.01672	-0.01672	0	0.086	0.086	0

### 2.43 cQj18

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	0.1619	0.1619	0	0.05464	0.05464	0
$b\bar{b} \rightarrow u\bar{u}$	0.06139	0.06139	0	0.02071	0.02071	0
$t\bar{t} \rightarrow c\bar{c}$	0.4666	0.4666	0	0.1508	0.1508	0
$t\bar{t} \rightarrow d\bar{d}$	0.03788	0.03788	0	0.006153	0.006153	0
$t\bar{t} \rightarrow s\bar{s}$	0.6065	0.6065	0	0.1981	0.1981	0

### 2.44 cQj31

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\bar{b}t \rightarrow \bar{d}u$	0.004878	0.004878	0	0.02305	0.02305	0
$b\bar{b} \rightarrow d\bar{d}$	0.201	0.201	0	0.9177	0.9177	0
$b\bar{b} \rightarrow u\bar{u}$	0.00696	0.00696	0	0.03404	0.03404	0
$t\bar{t} \rightarrow c\bar{c}$	0.1047	0.1047	0	0.4756	0.4756	0
$t\bar{t} \rightarrow d\bar{d}$	0.01243	0.01243	0	0.06505	0.06505	0
$t\bar{t} \rightarrow s\bar{s}$	0.1693	0.1693	0	0.8323	0.8323	0

### 2.45 cQj38

interference

square



	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$1.35 \cdot 10^{-10}$	$4.249 \cdot 10^{-19}$	1	0.02127	0.02127	0
$b\bar{b} \rightarrow d\bar{d}$	0.5355	0.5355	0	0.1807	0.1807	0
$b\bar{b} \rightarrow u\bar{u}$	-0.02307	-0.02307	0	0.007783	0.007783	0
$t\bar{t} \rightarrow c\bar{c}$	0.4953	0.4953	0	0.1605	0.1605	0
$t\bar{t} \rightarrow d\bar{d}$	-0.07392	-0.07392	0	0.01831	0.01831	0
$t\bar{t} \rightarrow s\bar{s}$	-0.02125	-0.02125	0	0.0005374	0.0005374	0

## 2.46 cQl111

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	-0.06145	-0.06145	0	0.2631	0.2631	0

## 2.47 cQl122

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+ \mu^-$	0.0332	0.0332	0	0.1748	0.1748	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0006883	-0.0006883	0	0.0008859	0.0008859	0

## 2.48 cQl133

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.07169	-0.07169	0	0.3048	0.3048	0

## 2.49 cQl311

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	0.038	0.038	0	0.1627	0.1627	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	0.008795	0.008795	0	0.04156	0.04156	0

## 2.50 cQl322

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+ \mu^-$	0.02416	0.02416	0	0.1272	0.1272	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	0.005144	0.005144	0	0.03151	0.03151	0

## 2.51 cQl333

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow \tau^+ \tau^-$	0.06878	0.06878	0	0.2923	0.2923	0

## 2.52 cQt1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow t\bar{t}$	-0.1364	-0.1364	0	0.117	0.117	0
$t\bar{t} \rightarrow t\bar{t}$	-0.2718	-0.2718	0	8.418	8.418	0

### 2.53 cQt8

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	-0.08439	-0.08439	0	0.01584	0.01584	0
$t\bar{t} \rightarrow t\bar{t}$	-7.008	-7.008	0	1.697	1.697	0

### 2.54 cQtQb1Im

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	$-3.374 \cdot 10^{-19}$	$-1.1 \cdot 10^{-18}$	-2.261	0.5529	0.5529	0

### 2.55 cQtQb1Re

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	-0.006609	-0.006609	0	0.6905	0.6905	0

### 2.56 cQtQb8Im

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	$-3.8 \cdot 10^{-19}$	$-3.8 \cdot 10^{-19}$	0	0.09435	0.09435	0

### 2.57 cQtQb8Re

interference square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow t\bar{t}$	0.001561	0.001561	0	0.1232	0.1232	0

## 2.58 cQtjd1Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$5.953 \cdot 10^{-14}$	$5.953 \cdot 10^{-14}$	$-5.879 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$-5.788 \cdot 10^{-26}$	$-4.622 \cdot 10^{-26}$	0.2014	$3.601 \cdot 10^{-10}$	$3.601 \cdot 10^{-10}$	$-1.166 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-1.429 \cdot 10^{-25}$	$1.149 \cdot 10^{-23}$	81.36	$1.428 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$6.303 \cdot 10^{-7}$

## 2.59 cQtjd1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-3.586 \cdot 10^{-10}$	$-3.586 \cdot 10^{-10}$	$-5.856 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$-7.081 \cdot 10^{-10}$	$-7.081 \cdot 10^{-10}$	$-5.932 \cdot 10^{-7}$	$3.601 \cdot 10^{-10}$	$3.601 \cdot 10^{-10}$	$-1.194 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-2.816 \cdot 10^{-7}$	$-2.816 \cdot 10^{-7}$	$3.196 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$1.428 \cdot 10^{-7}$	$6.303 \cdot 10^{-7}$

## 2.60 cQtjd8Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-4.07 \cdot 10^{-27}$	$-4.07 \cdot 10^{-27}$	$9.336 \cdot 10^{-7}$	$3.997 \cdot 10^{-11}$	$3.997 \cdot 10^{-11}$	$-1.176 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$3.518 \cdot 10^{-27}$	$6.404 \cdot 10^{-28}$	0.818	$8.001 \cdot 10^{-11}$	$8.001 \cdot 10^{-11}$	$-1.175 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-9.296 \cdot 10^{-25}$	$-9.345 \cdot 10^{-25}$	-0.005169	$3.173 \cdot 10^{-8}$	$3.173 \cdot 10^{-8}$	$6.303 \cdot 10^{-7}$

## 2.61 cQtjd8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-3.88 \cdot 10^{-28}$	$-6.132 \cdot 10^{-27}$	$-14.8$	$3.997 \cdot 10^{-11}$	$3.997 \cdot 10^{-11}$	$-1.176 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$1.481 \cdot 10^{-11}$	$1.481 \cdot 10^{-11}$	$-5.401 \cdot 10^{-7}$	$8.001 \cdot 10^{-11}$	$8.001 \cdot 10^{-11}$	$-1.175 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-8.983 \cdot 10^{-9}$	$-8.983 \cdot 10^{-9}$	$3.117 \cdot 10^{-7}$	$3.173 \cdot 10^{-8}$	$3.173 \cdot 10^{-8}$	$6.303 \cdot 10^{-7}$

## 2.62 cQu1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow u\bar{u}$	0.01921	0.01921	0	0.6608	0.6608	0
$t\bar{t} \rightarrow c\bar{c}$	0.004315	0.004315	0	0.03237	0.03237	0

## 2.63 cQu8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow u\bar{u}$	0.3178	0.3178	0	0.1072	0.1072	0
$t\bar{t} \rightarrow c\bar{c}$	0.04759	0.04759	0	0.009427	0.009427	0

## 2.64 cQujb1Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-3.058 \cdot 10^{-17}$	$-3.058 \cdot 10^{-17}$	$-7.195 \cdot 10^{-7}$	$2.884 \cdot 10^{-12}$	$2.884 \cdot 10^{-12}$	$-1.456 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-3.427 \cdot 10^{-29}$	$-8.356 \cdot 10^{-30}$	$0.7562$	$3.731 \cdot 10^{-11}$	$3.731 \cdot 10^{-11}$	$-1.447 \cdot 10^{-6}$

## 2.65 cQujb1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-1.163 \cdot 10^{-13}$	$-1.163 \cdot 10^{-13}$	$-7.736 \cdot 10^{-7}$	$1.031 \cdot 10^{-12}$	$1.031 \cdot 10^{-12}$	$-1.455 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$2.547 \cdot 10^{-13}$	$2.547 \cdot 10^{-13}$	$-7.067 \cdot 10^{-7}$	$8.144 \cdot 10^{-14}$	$8.144 \cdot 10^{-14}$	$-1.449 \cdot 10^{-6}$

## 2.66 cQujb8Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-9.059 \cdot 10^{-17}$	$-9.059 \cdot 10^{-17}$	$-7.285 \cdot 10^{-7}$	$3.548 \cdot 10^{-12}$	$3.548 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-2.312 \cdot 10^{-29}$	$-6.074 \cdot 10^{-30}$	$0.7373$	$5.084 \cdot 10^{-13}$	$5.084 \cdot 10^{-13}$	$-1.436 \cdot 10^{-6}$

## 2.67 cQujb8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-5.408 \cdot 10^{-13}$	$-5.408 \cdot 10^{-13}$	$-7.211 \cdot 10^{-7}$	$3.548 \cdot 10^{-12}$	$3.548 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-3.548 \cdot 10^{-13}$	$-3.548 \cdot 10^{-13}$	$-7.329 \cdot 10^{-7}$	$5.084 \cdot 10^{-13}$	$5.084 \cdot 10^{-13}$	$-1.436 \cdot 10^{-6}$

## 2.68 cW

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+W^-\gamma$	$2.751 \cdot 10^{-6}$	$2.751 \cdot 10^{-6}$	0	$9.606 \cdot 10^{-8}$	$9.606 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$2.781 \cdot 10^{-7}$	$2.781 \cdot 10^{-7}$	0	$1.67 \cdot 10^{-8}$	$1.67 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$3.347 \cdot 10^{-5}$	$3.347 \cdot 10^{-5}$	0	0.0001118	0.0001118	0

$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-4.561 \cdot 10^{-9}$	$-4.561 \cdot 10^{-9}$	0	$2.025 \cdot 10^{-10}$	$2.025 \cdot 10^{-10}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$-6.802 \cdot 10^{-6}$	$-6.802 \cdot 10^{-6}$	0	$1.454 \cdot 10^{-5}$	$1.454 \cdot 10^{-5}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-7.637 \cdot 10^{-7}$	$-7.637 \cdot 10^{-7}$	0	$1.513 \cdot 10^{-6}$	$1.513 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-4.535 \cdot 10^{-7}$	$-4.535 \cdot 10^{-7}$	0	$4.691 \cdot 10^{-7}$	$4.691 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-7.962 \cdot 10^{-7}$	$-7.962 \cdot 10^{-7}$	0	$3.294 \cdot 10^{-6}$	$3.294 \cdot 10^{-6}$	0
$W^+W^- \rightarrow W^+W^-$	0.09953	0.09953	0	1.939	1.939	0
$W^+W^- \rightarrow \gamma\gamma$	0.002373	0.002373	0	0.6888	0.6888	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$-4.452 \cdot 10^{-7}$	$-4.452 \cdot 10^{-7}$	0	$3.085 \cdot 10^{-6}$	$3.085 \cdot 10^{-6}$	0
$\gamma W^+ \rightarrow zW^+$	0.00538	0.00538	0	0.2996	0.2996	0
$zz \rightarrow W^+W^-$	-0.02526	-0.02526	0	15.43	15.43	0

## 2.69 cWtil

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+W^-\gamma$	$3.07 \cdot 10^{-8}$	$3.07 \cdot 10^{-8}$	0	$1.776 \cdot 10^{-6}$	$1.776 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$1.85 \cdot 10^{-7}$	$1.85 \cdot 10^{-7}$	0	$1.983 \cdot 10^{-6}$	$1.983 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-3.932 \cdot 10^{-9}$	$-3.932 \cdot 10^{-9}$	0	$1.919 \cdot 10^{-8}$	$1.919 \cdot 10^{-8}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-4.384 \cdot 10^{-9}$	$-4.384 \cdot 10^{-9}$	0	$3.136 \cdot 10^{-8}$	$3.136 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$-1.977 \cdot 10^{-7}$	$-1.977 \cdot 10^{-7}$	0	$3.727 \cdot 10^{-7}$	$3.727 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-3.895 \cdot 10^{-9}$	$-3.895 \cdot 10^{-9}$	0	$4.429 \cdot 10^{-7}$	$4.429 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$2.202 \cdot 10^{-7}$	$2.202 \cdot 10^{-7}$	0	$6.313 \cdot 10^{-7}$	$6.313 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$2.318 \cdot 10^{-9}$	$2.318 \cdot 10^{-9}$	0	$6.878 \cdot 10^{-6}$	$6.878 \cdot 10^{-6}$	0
$W^+W^- \rightarrow W^+W^-$	$-2.716 \cdot 10^{-13}$	$-2.617 \cdot 10^{-13}$	0.03631	21.52	21.52	0
$W^+W^- \rightarrow \gamma\gamma$	$6.366 \cdot 10^{-18}$	$9.323 \cdot 10^{-18}$	-0.4645	0.719	0.719	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0	$1.032 \cdot 10^{-6}$	$1.032 \cdot 10^{-6}$	0
$\gamma W^+ \rightarrow zW^+$	$-3.647 \cdot 10^{-15}$	$-1.287 \cdot 10^{-16}$	0.9647	2.159	2.159	0
$zz \rightarrow W^+W^-$	$3.41 \cdot 10^{-14}$	$3.454 \cdot 10^{-14}$	-0.01264	15.32	15.32	0

## 2.70 cbBIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\bar{b}b$	$3.719 \cdot 10^{-9}$	$3.719 \cdot 10^{-9}$	0	$2.052 \cdot 10^{-7}$	$2.052 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$5.396 \cdot 10^{-8}$	$5.396 \cdot 10^{-8}$	0	$3.885 \cdot 10^{-7}$	$3.885 \cdot 10^{-7}$	0
$H\gamma \rightarrow b\bar{b}$	$4.774 \cdot 10^{-19}$	$4.774 \cdot 10^{-19}$	0	2.201	2.201	0
$HZ \rightarrow b\bar{b}$	$2.347 \cdot 10^{-6}$	$2.347 \cdot 10^{-6}$	0	0.2997	0.2997	0
$W^+W^- \rightarrow Hb\bar{b}$	$9.653 \cdot 10^{-8}$	$9.653 \cdot 10^{-8}$	0	$8.784 \cdot 10^{-8}$	$8.784 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow \gamma\gamma$	$1.147 \cdot 10^{-21}$	$1.147 \cdot 10^{-21}$	$-6.975 \cdot 10^{-7}$	0.002028	0.002028	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-4.296 \cdot 10^{-20}$	$-4.296 \cdot 10^{-20}$	0	0.002266	0.002266	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	$1.627 \cdot 10^{-20}$	$1.627 \cdot 10^{-20}$	0	0.0006578	0.0006578	0
$b\bar{b} \rightarrow b\bar{b}$	$-4.989 \cdot 10^{-19}$	$-4.824 \cdot 10^{-19}$	0.03311	0.01868	0.01868	0
$b\bar{b} \rightarrow d\bar{d}$	$1.722 \cdot 10^{-20}$	$1.722 \cdot 10^{-20}$	$-1.069 \cdot 10^{-5}$	0.0005167	0.0005167	0
$b\bar{b} \rightarrow t\bar{t}$	$-5.185 \cdot 10^{-20}$	$-5.732 \cdot 10^{-20}$	-0.1056	0.001832	0.001832	0
$b\bar{b} \rightarrow u\bar{u}$	$-1.087 \cdot 10^{-20}$	$-1.086 \cdot 10^{-20}$	0.0002707	0.0036	0.0036	0

## 2.71 cbBRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\bar{b}b$	$-1.159 \cdot 10^{-7}$	$-1.159 \cdot 10^{-7}$	0	$3.983 \cdot 10^{-7}$	$3.983 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$2.491 \cdot 10^{-7}$	$2.491 \cdot 10^{-7}$	0	$1.327 \cdot 10^{-5}$	$1.327 \cdot 10^{-5}$	0
$H\gamma \rightarrow b\bar{b}$	$-1.869 \cdot 10^{-6}$	$-1.869 \cdot 10^{-6}$	0	2.266	2.266	0
$HZ \rightarrow b\bar{b}$	-0.0006946	-0.0006946	0	0.06305	0.06305	0
$W^+W^- \rightarrow Hb\bar{b}$	$3.953 \cdot 10^{-8}$	$3.953 \cdot 10^{-8}$	0	$1.032 \cdot 10^{-8}$	$1.032 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow \gamma\gamma$	$9.541 \cdot 10^{-6}$	$9.541 \cdot 10^{-6}$	0	0.002028	0.002028	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$1.834 \cdot 10^{-5}$	$1.834 \cdot 10^{-5}$	0	0.003027	0.003027	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	$-1.718 \cdot 10^{-5}$	$-1.718 \cdot 10^{-5}$	0	0.0006581	0.0006581	0



$b\bar{b} \rightarrow b\bar{b}$	-0.0002315	-0.0002315	0	0.02076	0.02076	0
$b\bar{b} \rightarrow d\bar{d}$	$-2.151 \cdot 10^{-5}$	$-2.151 \cdot 10^{-5}$	0	0.000881	0.000881	0
$b\bar{b} \rightarrow t\bar{t}$	0.0004802	0.0004802	0	0.0005086	0.0005086	0
$b\bar{b} \rightarrow u\bar{u}$	$3.47 \cdot 10^{-5}$	$3.47 \cdot 10^{-5}$	0	0.003606	0.003606	0

## 2.72 cbGIm

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	$1.419 \cdot 10^{-18}$	$1.347 \cdot 10^{-18}$	0.05096	0.2536	0.2536	0
$b\bar{b} \rightarrow d\bar{d}$	$-1.034 \cdot 10^{-25}$	$-1.151 \cdot 10^{-26}$	0.8887	0.01381	0.01381	0
$b\bar{b} \rightarrow t\bar{t}$	$7.421 \cdot 10^{-20}$	$7.421 \cdot 10^{-20}$	0	0.01665	0.01665	0
$b\bar{b} \rightarrow u\bar{u}$	$2.298 \cdot 10^{-26}$	$2.298 \cdot 10^{-26}$	0	0.005023	0.005023	0

## 2.73 cbGRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-0.01546	-0.01546	0	0.003027	0.003027	0
$b\bar{b} \rightarrow d\bar{d}$	-0.004666	-0.004666	0	0.03907	0.03907	0
$b\bar{b} \rightarrow t\bar{t}$	-0.003092	-0.003092	0	0.03397	0.03397	0
$b\bar{b} \rightarrow u\bar{u}$	-0.004666	-0.004666	0	0.02279	0.02279	0

## 2.74 cbHIm

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Hb\bar{b}$	$4.515 \cdot 10^{-11}$	$4.515 \cdot 10^{-11}$	0	$5.034 \cdot 10^{-6}$	$5.034 \cdot 10^{-6}$	0

$HH \rightarrow W^+ \bar{t}b$	$1.739 \cdot 10^{-5}$	$1.739 \cdot 10^{-5}$	0	$5.793 \cdot 10^{-6}$	$5.793 \cdot 10^{-6}$	0
$HH \rightarrow z \bar{b}b$	$1.933 \cdot 10^{-6}$	$1.933 \cdot 10^{-6}$	0	$3.921 \cdot 10^{-6}$	$3.921 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$1.466 \cdot 10^{-9}$	$1.466 \cdot 10^{-9}$	0	$4.957 \cdot 10^{-8}$	$4.957 \cdot 10^{-8}$	0
$HW^- \rightarrow \bar{t}b$	$7.863 \cdot 10^{-6}$	$7.863 \cdot 10^{-6}$	0	0.06449	0.06449	0
$H\gamma \rightarrow b \bar{b}$	$-6.776 \cdot 10^{-21}$	$-6.776 \cdot 10^{-21}$	0	0.0004851	0.0004851	0
$H z \rightarrow b \bar{b}$	$-1.117 \cdot 10^{-8}$	$-1.117 \cdot 10^{-8}$	0	0.06434	0.06434	0
$W^+ W^- \rightarrow H b \bar{b}$	$-1.416 \cdot 10^{-8}$	$-1.416 \cdot 10^{-8}$	0	$9.897 \cdot 10^{-8}$	$9.897 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-1.095 \cdot 10^{-8}$	$-1.095 \cdot 10^{-8}$	0	$7.083 \cdot 10^{-11}$	$7.083 \cdot 10^{-11}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-3.478 \cdot 10^{-27}$	$-3.478 \cdot 10^{-27}$	0	$1.164 \cdot 10^{-10}$	$1.164 \cdot 10^{-10}$	0
$b \bar{b} \rightarrow b \bar{b}$	$8.901 \cdot 10^{-21}$	$8.876 \cdot 10^{-21}$	0.002849	$2.826 \cdot 10^{-6}$	$2.826 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow d \bar{d}$	$-1.945 \cdot 10^{-29}$	$-1.676 \cdot 10^{-29}$	0.138	$6.823 \cdot 10^{-13}$	$6.823 \cdot 10^{-13}$	0
$b \bar{b} \rightarrow t \bar{t}$	$-1.883 \cdot 10^{-20}$	$-1.883 \cdot 10^{-20}$	0	0.0008223	0.0008223	0
$b \bar{b} \rightarrow u \bar{u}$	$1.649 \cdot 10^{-29}$	$9.631 \cdot 10^{-30}$	0.4159	$1.46 \cdot 10^{-13}$	$1.46 \cdot 10^{-13}$	0

## 2.75 cbHRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow H b \bar{b}$	$-2.269 \cdot 10^{-6}$	$-2.269 \cdot 10^{-6}$	0	$4.078 \cdot 10^{-6}$	$4.078 \cdot 10^{-6}$	0
$HH \rightarrow W^+ \bar{t}b$	$-3.592 \cdot 10^{-7}$	$-3.592 \cdot 10^{-7}$	0	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0
$HH \rightarrow z \bar{b}b$	$-1.041 \cdot 10^{-7}$	$-1.041 \cdot 10^{-7}$	0	$4.872 \cdot 10^{-6}$	$4.872 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-2.264 \cdot 10^{-9}$	$-2.264 \cdot 10^{-9}$	0	$1.4 \cdot 10^{-8}$	$1.4 \cdot 10^{-8}$	0
$HW^- \rightarrow \bar{t}b$	0.002021	0.002021	0	0.06318	0.06318	0
$H\gamma \rightarrow b \bar{b}$	-0.0006008	-0.0006008	0	0.0007585	0.0007585	0
$H z \rightarrow b \bar{b}$	$-8.475 \cdot 10^{-6}$	$-8.475 \cdot 10^{-6}$	0	0.06116	0.06116	0
$W^+ W^- \rightarrow H b \bar{b}$	$3.048 \cdot 10^{-8}$	$3.048 \cdot 10^{-8}$	0	$2.499 \cdot 10^{-7}$	$2.499 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$2.693 \cdot 10^{-8}$	$2.693 \cdot 10^{-8}$	0	$2.259 \cdot 10^{-11}$	$2.259 \cdot 10^{-11}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-9.153 \cdot 10^{-11}$	$-9.153 \cdot 10^{-11}$	0	$1.164 \cdot 10^{-10}$	$1.164 \cdot 10^{-10}$	0
$b \bar{b} \rightarrow b \bar{b}$	0.01047	0.01047	0	$4.661 \cdot 10^{-6}$	$4.661 \cdot 10^{-6}$	0

$b\bar{b} \rightarrow d\bar{d}$	$-5.397 \cdot 10^{-13}$	$-5.397 \cdot 10^{-13}$	0	$6.822 \cdot 10^{-13}$	$6.822 \cdot 10^{-13}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0004241	-0.0004241	0	0.0008222	0.0008222	0
$b\bar{b} \rightarrow u\bar{u}$	$-1.156 \cdot 10^{-13}$	$-1.156 \cdot 10^{-13}$	0	$1.46 \cdot 10^{-13}$	$1.46 \cdot 10^{-13}$	0

## 2.76 cbWIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$-1.009 \cdot 10^{-7}$	$-1.009 \cdot 10^{-7}$	0	$9.64 \cdot 10^{-6}$	$9.64 \cdot 10^{-6}$	0
$HH \rightarrow z \bar{b}b$	$-6.368 \cdot 10^{-10}$	$-6.368 \cdot 10^{-10}$	0	$6.49 \cdot 10^{-7}$	$6.49 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-1.688 \cdot 10^{-9}$	$-1.688 \cdot 10^{-9}$	0	$1.361 \cdot 10^{-6}$	$1.361 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	$-1.103 \cdot 10^{-5}$	$-1.103 \cdot 10^{-5}$	0	1.203	1.203	0
$H\gamma \rightarrow b\bar{b}$	$3.309 \cdot 10^{-23}$	$3.309 \cdot 10^{-23}$	0	0.6397	0.6397	0
$H z \rightarrow b\bar{b}$	$-3.559 \cdot 10^{-6}$	$-3.559 \cdot 10^{-6}$	0	1.164	1.164	0
$W^+ W^- \rightarrow H b \bar{b}$	$-3.924 \cdot 10^{-8}$	$-3.924 \cdot 10^{-8}$	0	$1.199 \cdot 10^{-6}$	$1.199 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$5.461 \cdot 10^{-9}$	$5.461 \cdot 10^{-9}$	0	$9.737 \cdot 10^{-9}$	$9.737 \cdot 10^{-9}$	0
$\bar{b}t \rightarrow \bar{d}u$	$2.802 \cdot 10^{-19}$	$2.802 \cdot 10^{-19}$	0	0.009291	0.009291	0
$b\bar{b} \rightarrow \gamma\gamma$	$-3.975 \cdot 10^{-22}$	$-3.975 \cdot 10^{-22}$	0	0.000618	0.000618	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-5.281 \cdot 10^{-21}$	$-5.281 \cdot 10^{-21}$	0	0.00174	0.00174	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	$5.082 \cdot 10^{-20}$	$5.082 \cdot 10^{-20}$	0	0.001769	0.001769	0
$b\bar{b} \rightarrow b\bar{b}$	$-1.025 \cdot 10^{-17}$	$-1.013 \cdot 10^{-17}$	0.01095	0.5447	0.5447	0
$b\bar{b} \rightarrow d\bar{d}$	$7.801 \cdot 10^{-20}$	$7.801 \cdot 10^{-20}$	0	0.002798	0.002798	0
$b\bar{b} \rightarrow t\bar{t}$	$-3.715 \cdot 10^{-18}$	$-3.724 \cdot 10^{-18}$	-0.002305	0.2789	0.2789	0
$b\bar{b} \rightarrow u\bar{u}$	$-5.51 \cdot 10^{-21}$	$-5.513 \cdot 10^{-21}$	-0.0005338	0.006323	0.006323	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$6.258 \cdot 10^{-21}$	$6.258 \cdot 10^{-21}$	0	0.00028	0.00028	0

## 2.77 cbWRe

interference

square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$7.678 \cdot 10^{-8}$	$7.678 \cdot 10^{-8}$	0	$1.057 \cdot 10^{-5}$	$1.057 \cdot 10^{-5}$	0
$HH \rightarrow z \bar{b}b$	$-1.205 \cdot 10^{-7}$	$-1.205 \cdot 10^{-7}$	0	$3.093 \cdot 10^{-6}$	$3.093 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$1.565 \cdot 10^{-8}$	$1.565 \cdot 10^{-8}$	0	$4.41 \cdot 10^{-6}$	$4.41 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	-0.006465	-0.006465	0	2.253	2.253	0
$H\gamma \rightarrow b \bar{b}$	$6.431 \cdot 10^{-6}$	$6.431 \cdot 10^{-6}$	0	0.1109	0.1109	0
$H z \rightarrow b \bar{b}$	-0.00127	-0.00127	0	1.152	1.152	0
$W^+ W^- \rightarrow H b \bar{b}$	$9.392 \cdot 10^{-10}$	$9.392 \cdot 10^{-10}$	0	$2.995 \cdot 10^{-6}$	$2.995 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-1.341 \cdot 10^{-7}$	$-1.341 \cdot 10^{-7}$	0	$8.601 \cdot 10^{-9}$	$8.601 \cdot 10^{-9}$	0
$\bar{b}t \rightarrow \bar{d}u$	-0.0003306	-0.0003306	0	0.007775	0.007775	0
$b \bar{b} \rightarrow \gamma \gamma$	$-4.304 \cdot 10^{-6}$	$-4.304 \cdot 10^{-6}$	0	0.0006181	0.0006181	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-1.865 \cdot 10^{-5}$	$-1.865 \cdot 10^{-5}$	0	0.0008476	0.0008476	0
$b \bar{b} \rightarrow \nu_e \bar{\nu}_e$	$-6.618 \cdot 10^{-5}$	$-6.618 \cdot 10^{-5}$	0	0.0007087	0.0007087	0
$b \bar{b} \rightarrow b \bar{b}$	-0.0007479	-0.0007479	0	0.06995	0.06995	0
$b \bar{b} \rightarrow d \bar{d}$	$-5.33 \cdot 10^{-5}$	$-5.33 \cdot 10^{-5}$	0	0.005454	0.005454	0
$b \bar{b} \rightarrow t \bar{t}$	-0.002799	-0.002799	0	0.01432	0.01432	0
$b \bar{b} \rightarrow u \bar{u}$	$-7.017 \cdot 10^{-5}$	$-7.017 \cdot 10^{-5}$	0	0.005561	0.005561	0
$b \bar{t} \rightarrow e^- \bar{\nu}_e$	$-5.727 \cdot 10^{-5}$	$-5.727 \cdot 10^{-5}$	0	0.004342	0.004342	0

## 2.78 cbb

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b \bar{b} \rightarrow b \bar{b}$	0.0001804	0.0001804	0	0.0005271	0.0005271	0

## 2.79 cbd1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$b\bar{b} \rightarrow d\bar{d}$	0.02124	0.02124	0	0.7445	0.7445	0
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## 2.80    **cbd8**

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	0.0602	0.0602	0	0.02031	0.02031	0

## 2.81    **cbe22**

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+\mu^-$	0.01089	0.01089	0	0.1272	0.1272	0

## 2.82    **cbj1**

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	-0.01043	-0.01043	0	0.7174	0.7174	0
$b\bar{b} \rightarrow u\bar{u}$	-0.005996	-0.005996	0	0.4283	0.4283	0

## 2.83    **cbj8**

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	0.1238	0.1238	0	0.04178	0.04178	0
$b\bar{b} \rightarrow u\bar{u}$	0.4967	0.4967	0	0.1676	0.1676	0

## 2.84 cbl11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	0.002151	0.002151	0	0.04996	0.04996	0

## 2.85 cbl22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+ \mu^-$	0.008151	0.008151	0	0.1917	0.1917	0

## 2.86 cbu1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow u\bar{u}$	-0.006814	-0.006814	0	0.1194	0.1194	0

## 2.87 cbu8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow u\bar{u}$	0.02307	0.02307	0	0.007783	0.007783	0

## 2.88 cdBIm

interference			square		
mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$HH \rightarrow z d \bar{d}$	$-4.661 \cdot 10^{-15}$	$-4.661 \cdot 10^{-15}$	$-6.007 \cdot 10^{-7}$	$1.64 \cdot 10^{-15}$	$1.64 \cdot 10^{-15}$	$-1.158 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u \bar{d}$	$6.541 \cdot 10^{-17}$	$6.541 \cdot 10^{-17}$	$-5.81 \cdot 10^{-7}$	$2.329 \cdot 10^{-16}$	$2.329 \cdot 10^{-16}$	$-1.202 \cdot 10^{-6}$
$H\gamma \rightarrow d \bar{d}$	$-1.956 \cdot 10^{-35}$	$-8.275 \cdot 10^{-36}$	$0.5769$	$1.026 \cdot 10^{-9}$	$1.026 \cdot 10^{-9}$	$-1.169 \cdot 10^{-6}$
$H z \rightarrow s \bar{s}$	$3.804 \cdot 10^{-12}$	$3.804 \cdot 10^{-12}$	$3.155 \cdot 10^{-7}$	$1.369 \cdot 10^{-7}$	$1.369 \cdot 10^{-7}$	$5.845 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d \bar{d}$	$-3.217 \cdot 10^{-17}$	$-3.217 \cdot 10^{-17}$	$-5.907 \cdot 10^{-7}$	$2.125 \cdot 10^{-18}$	$2.125 \cdot 10^{-18}$	$-1.129 \cdot 10^{-6}$
$b \bar{b} \rightarrow d \bar{d}$	$1.863 \cdot 10^{-29}$	$1.145 \cdot 10^{-28}$	$-5.143$	$7.853 \cdot 10^{-13}$	$7.853 \cdot 10^{-13}$	$-1.172 \cdot 10^{-6}$
$d \bar{d} \rightarrow c \bar{c}$	$6.178 \cdot 10^{-28}$	$6.177 \cdot 10^{-28}$	$8.424 \cdot 10^{-5}$	$1.543 \cdot 10^{-12}$	$1.543 \cdot 10^{-12}$	$-1.167 \cdot 10^{-6}$
$d \bar{d} \rightarrow e^+ e^-$	$2.177 \cdot 10^{-27}$	$2.177 \cdot 10^{-27}$	$0$	$2.133 \cdot 10^{-12}$	$2.133 \cdot 10^{-12}$	$-1.172 \cdot 10^{-6}$
$d \bar{d} \rightarrow s \bar{s}$	$3.357 \cdot 10^{-26}$	$1.276 \cdot 10^{-26}$	$0.6198$	$2.734 \cdot 10^{-10}$	$2.734 \cdot 10^{-10}$	$6.219 \cdot 10^{-7}$
$s \bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-9.827 \cdot 10^{-25}$	$-9.827 \cdot 10^{-25}$	$7.123 \cdot 10^{-7}$	$1.856 \cdot 10^{-10}$	$1.856 \cdot 10^{-10}$	$6.467 \cdot 10^{-7}$
$s \bar{s} \rightarrow s \bar{s}$	$-1.616 \cdot 10^{-23}$	$-1.648 \cdot 10^{-23}$	$-0.0203$	$1.677 \cdot 10^{-9}$	$1.677 \cdot 10^{-9}$	$6.559 \cdot 10^{-7}$
$t \bar{t} \rightarrow d \bar{d}$	$3.937 \cdot 10^{-26}$	$3.996 \cdot 10^{-26}$	$-0.015$	$1.435 \cdot 10^{-12}$	$1.435 \cdot 10^{-12}$	$-1.185 \cdot 10^{-6}$
$t \bar{t} \rightarrow s \bar{s}$	$-5.558 \cdot 10^{-24}$	$-5.077 \cdot 10^{-24}$	$0.08654$	$3.059 \cdot 10^{-10}$	$3.059 \cdot 10^{-10}$	$6.537 \cdot 10^{-7}$
$u \bar{d} \rightarrow u \bar{d}$	$-5.445 \cdot 10^{-26}$	$-5.445 \cdot 10^{-26}$	$1.102 \cdot 10^{-6}$	$7.988 \cdot 10^{-12}$	$7.988 \cdot 10^{-12}$	$-1.177 \cdot 10^{-6}$

## 2.89 cdBRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow z d \bar{d}$	$-4.872 \cdot 10^{-15}$	$-4.872 \cdot 10^{-15}$	$-5.747 \cdot 10^{-7}$	$5.231 \cdot 10^{-16}$	$5.231 \cdot 10^{-16}$	$-1.166 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u \bar{d}$	$2.183 \cdot 10^{-16}$	$2.183 \cdot 10^{-16}$	$-5.497 \cdot 10^{-7}$	$4.054 \cdot 10^{-15}$	$4.054 \cdot 10^{-15}$	$-1.184 \cdot 10^{-6}$
$H\gamma \rightarrow d \bar{d}$	$-7.694 \cdot 10^{-20}$	$-7.694 \cdot 10^{-20}$	$-5.848 \cdot 10^{-7}$	$1.429 \cdot 10^{-9}$	$1.429 \cdot 10^{-9}$	$-1.19 \cdot 10^{-6}$
$H z \rightarrow s \bar{s}$	$-8.345 \cdot 10^{-9}$	$-8.345 \cdot 10^{-9}$	$3.235 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	$6.699 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d \bar{d}$	$6.999 \cdot 10^{-17}$	$6.999 \cdot 10^{-17}$	$-5.858 \cdot 10^{-7}$	$3.497 \cdot 10^{-18}$	$3.497 \cdot 10^{-18}$	$-1.172 \cdot 10^{-6}$
$b \bar{b} \rightarrow d \bar{d}$	$-5.28 \cdot 10^{-13}$	$-5.28 \cdot 10^{-13}$	$-5.682 \cdot 10^{-7}$	$7.686 \cdot 10^{-13}$	$7.686 \cdot 10^{-13}$	$-1.171 \cdot 10^{-6}$
$d \bar{d} \rightarrow c \bar{c}$	$-4.313 \cdot 10^{-13}$	$-4.313 \cdot 10^{-13}$	$-5.796 \cdot 10^{-7}$	$3.786 \cdot 10^{-13}$	$3.786 \cdot 10^{-13}$	$-1.162 \cdot 10^{-6}$
$d \bar{d} \rightarrow e^+ e^-$	$6.732 \cdot 10^{-15}$	$6.732 \cdot 10^{-15}$	$-5.794 \cdot 10^{-7}$	$9.444 \cdot 10^{-13}$	$9.444 \cdot 10^{-13}$	$-1.175 \cdot 10^{-6}$
$d \bar{d} \rightarrow s \bar{s}$	$-3.443 \cdot 10^{-10}$	$-3.443 \cdot 10^{-10}$	$3.195 \cdot 10^{-7}$	$6.447 \cdot 10^{-13}$	$6.447 \cdot 10^{-13}$	$6.205 \cdot 10^{-7}$
$s \bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-1.855 \cdot 10^{-10}$	$-1.855 \cdot 10^{-10}$	$3.234 \cdot 10^{-7}$	$1.875 \cdot 10^{-10}$	$1.875 \cdot 10^{-10}$	$6.401 \cdot 10^{-7}$

$s\bar{s} \rightarrow s\bar{s}$	$5.114 \cdot 10^{-9}$	$5.114 \cdot 10^{-9}$	$3.129 \cdot 10^{-7}$	$1.1 \cdot 10^{-9}$	$1.1 \cdot 10^{-9}$	$6.366 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$1.081 \cdot 10^{-11}$	$1.081 \cdot 10^{-11}$	$-5.549 \cdot 10^{-7}$	$8.492 \cdot 10^{-13}$	$8.492 \cdot 10^{-13}$	$-1.166 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-1.191 \cdot 10^{-9}$	$-1.191 \cdot 10^{-9}$	$2.519 \cdot 10^{-7}$	$9.472 \cdot 10^{-10}$	$9.472 \cdot 10^{-10}$	$6.334 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.587 \cdot 10^{-11}$	$-1.587 \cdot 10^{-11}$	$-5.672 \cdot 10^{-7}$	$5.721 \cdot 10^{-11}$	$5.721 \cdot 10^{-11}$	$-1.171 \cdot 10^{-6}$

## 2.90 cdGIm

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	$-4.438 \cdot 10^{-27}$	$-4.433 \cdot 10^{-27}$	0.001027	$2.811 \cdot 10^{-11}$	$2.811 \cdot 10^{-11}$	$-1.138 \cdot 10^{-6}$
$d\bar{d} \rightarrow c\bar{c}$	$9.501 \cdot 10^{-33}$	$-5.919 \cdot 10^{-33}$	1.623	$4.113 \cdot 10^{-12}$	$4.113 \cdot 10^{-12}$	$-1.167 \cdot 10^{-6}$
$d\bar{d} \rightarrow s\bar{s}$	$-4.647 \cdot 10^{-25}$	$-4.636 \cdot 10^{-25}$	0.002406	$2.358 \cdot 10^{-11}$	$2.358 \cdot 10^{-11}$	$6.363 \cdot 10^{-7}$
$s\bar{s} \rightarrow s\bar{s}$	$-2.228 \cdot 10^{-24}$	$-8.353 \cdot 10^{-25}$	0.6251	$2.065 \cdot 10^{-8}$	$2.065 \cdot 10^{-8}$	$6.297 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$2.348 \cdot 10^{-27}$	$1.622 \cdot 10^{-27}$	0.3091	$1.015 \cdot 10^{-11}$	$1.015 \cdot 10^{-11}$	$-1.183 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-7.713 \cdot 10^{-26}$	$-6.459 \cdot 10^{-25}$	-7.375	$1.066 \cdot 10^{-8}$	$1.066 \cdot 10^{-8}$	$6.569 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$1.859 \cdot 10^{-28}$	$1.852 \cdot 10^{-28}$	0.003768	$6.284 \cdot 10^{-10}$	$6.284 \cdot 10^{-10}$	$-1.178 \cdot 10^{-6}$

## 2.91 cdGRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow d\bar{d}$	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	$-6.436 \cdot 10^{-7}$	$2.318 \cdot 10^{-11}$	$2.318 \cdot 10^{-11}$	$-1.165 \cdot 10^{-6}$
$d\bar{d} \rightarrow c\bar{c}$	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	$-5.721 \cdot 10^{-7}$	$2.87 \cdot 10^{-11}$	$2.87 \cdot 10^{-11}$	$-1.15 \cdot 10^{-6}$
$d\bar{d} \rightarrow s\bar{s}$	$-5.56 \cdot 10^{-8}$	$-5.56 \cdot 10^{-8}$	$3.058 \cdot 10^{-7}$	$1.082 \cdot 10^{-8}$	$1.082 \cdot 10^{-8}$	$5.545 \cdot 10^{-7}$
$s\bar{s} \rightarrow s\bar{s}$	$-2.354 \cdot 10^{-7}$	$-2.354 \cdot 10^{-7}$	$3.399 \cdot 10^{-7}$	$1.403 \cdot 10^{-7}$	$1.403 \cdot 10^{-7}$	$6.416 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$-1.567 \cdot 10^{-10}$	$-1.567 \cdot 10^{-10}$	$-5.745 \cdot 10^{-7}$	$2.486 \cdot 10^{-11}$	$2.486 \cdot 10^{-11}$	$-1.167 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-6.213 \cdot 10^{-8}$	$-6.213 \cdot 10^{-8}$	$3.219 \cdot 10^{-7}$	$9.82 \cdot 10^{-9}$	$9.82 \cdot 10^{-9}$	$6.314 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.506 \cdot 10^{-10}$	$-1.506 \cdot 10^{-10}$	$-5.977 \cdot 10^{-7}$	$1.338 \cdot 10^{-10}$	$1.338 \cdot 10^{-10}$	$-1.121 \cdot 10^{-6}$



## 2.92 cdHIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hs\bar{s}$	$4.055 \cdot 10^{-18}$	$4.055 \cdot 10^{-18}$	$3.206 \cdot 10^{-7}$	$1.706 \cdot 10^{-12}$	$1.706 \cdot 10^{-12}$	$6.45 \cdot 10^{-7}$
$HH \rightarrow W^- u\bar{d}$	$-1.303 \cdot 10^{-15}$	$-1.303 \cdot 10^{-15}$	$-5.371 \cdot 10^{-7}$	$8.028 \cdot 10^{-16}$	$8.028 \cdot 10^{-16}$	$-1.171 \cdot 10^{-6}$
$HH \rightarrow zd\bar{d}$	$1.071 \cdot 10^{-15}$	$1.071 \cdot 10^{-15}$	$-6.534 \cdot 10^{-7}$	$7.403 \cdot 10^{-16}$	$7.403 \cdot 10^{-16}$	$-1.175 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.398 \cdot 10^{-16}$	$-1.398 \cdot 10^{-16}$	$-5.723 \cdot 10^{-7}$	$4.313 \cdot 10^{-18}$	$4.313 \cdot 10^{-18}$	$-1.182 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$-2.395 \cdot 10^{-13}$	$-2.395 \cdot 10^{-13}$	$-5.846 \cdot 10^{-7}$	$4.416 \cdot 10^{-11}$	$4.416 \cdot 10^{-11}$	$-1.178 \cdot 10^{-6}$
$H\gamma \rightarrow d\bar{d}$	$3.231 \cdot 10^{-27}$	$4.847 \cdot 10^{-27}$	$-0.5$	$1.588 \cdot 10^{-12}$	$1.588 \cdot 10^{-12}$	$-1.197 \cdot 10^{-6}$
$HZ \rightarrow s\bar{s}$	$5.522 \cdot 10^{-15}$	$5.522 \cdot 10^{-15}$	$3.26 \cdot 10^{-7}$	$1.744 \cdot 10^{-8}$	$1.744 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$
$W^+W^- \rightarrow Hc\bar{c}$	$-4.428 \cdot 10^{-14}$	$-4.428 \cdot 10^{-14}$	$3.161 \cdot 10^{-7}$	$1.138 \cdot 10^{-21}$	$1.138 \cdot 10^{-21}$	$6.153 \cdot 10^{-7}$
$W^+W^- \rightarrow Hd\bar{d}$	$4.905 \cdot 10^{-17}$	$4.905 \cdot 10^{-17}$	$-5.912 \cdot 10^{-7}$	$6.925 \cdot 10^{-17}$	$6.925 \cdot 10^{-17}$	$-1.17 \cdot 10^{-6}$
$b\bar{b} \rightarrow d\bar{d}$	$-9.908 \cdot 10^{-31}$	$1.513 \cdot 10^{-30}$	$2.527$	$3.933 \cdot 10^{-16}$	$3.933 \cdot 10^{-16}$	$-1.17 \cdot 10^{-6}$
$d\bar{d} \rightarrow c\bar{c}$	$-7.892 \cdot 10^{-32}$	$-5.016 \cdot 10^{-32}$	$0.3644$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$-1.184 \cdot 10^{-6}$
$d\bar{d} \rightarrow e^+e^-$	$-5.587 \cdot 10^{-40}$	$2.041 \cdot 10^{-39}$	$4.653$	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	$-1.174 \cdot 10^{-6}$
$d\bar{d} \rightarrow s\bar{s}$	$5.246 \cdot 10^{-34}$	$-2.706 \cdot 10^{-34}$	$1.516$	$3.893 \cdot 10^{-19}$	$3.893 \cdot 10^{-19}$	$-2.568 \cdot 10^{-7}$
$s\bar{s} \rightarrow s\bar{s}$	$-2.071 \cdot 10^{-24}$	$-3.389 \cdot 10^{-24}$	$-0.6363$	$3.8 \cdot 10^{-16}$	$3.8 \cdot 10^{-16}$	$6.316 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$6.129 \cdot 10^{-28}$	$2.623 \cdot 10^{-28}$	$0.5721$	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	$-1.17 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$3.648 \cdot 10^{-25}$	$-5.601 \cdot 10^{-25}$	$2.535$	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	$6.381 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$8.213 \cdot 10^{-37}$	$7.986 \cdot 10^{-37}$	$0.02773$	$9.843 \cdot 10^{-23}$	$9.843 \cdot 10^{-23}$	$-1.178 \cdot 10^{-6}$

## 2.93 cdHRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hs\bar{s}$	$-2.718 \cdot 10^{-12}$	$-2.718 \cdot 10^{-12}$	$3.311 \cdot 10^{-7}$	$6.01 \cdot 10^{-13}$	$6.01 \cdot 10^{-13}$	$6.156 \cdot 10^{-7}$
$HH \rightarrow W^- u\bar{d}$	$-4.599 \cdot 10^{-15}$	$-4.599 \cdot 10^{-15}$	$-5.871 \cdot 10^{-7}$	$4.315 \cdot 10^{-15}$	$4.315 \cdot 10^{-15}$	$-1.159 \cdot 10^{-6}$
$HH \rightarrow zd\bar{d}$	$3.213 \cdot 10^{-15}$	$3.213 \cdot 10^{-15}$	$-5.914 \cdot 10^{-7}$	$7.104 \cdot 10^{-16}$	$7.104 \cdot 10^{-16}$	$-1.168 \cdot 10^{-6}$

$HW^+ \rightarrow \gamma u \bar{d}$	$-2.184 \cdot 10^{-16}$	$-2.184 \cdot 10^{-16}$	$-5.953 \cdot 10^{-7}$	$9.391 \cdot 10^{-17}$	$9.391 \cdot 10^{-17}$	$-1.171 \cdot 10^{-6}$
$HW^+ \rightarrow u \bar{d}$	$-1.232 \cdot 10^{-10}$	$-1.232 \cdot 10^{-10}$	$-6.493 \cdot 10^{-7}$	$4.812 \cdot 10^{-11}$	$4.812 \cdot 10^{-11}$	$-1.185 \cdot 10^{-6}$
$H\gamma \rightarrow d \bar{d}$	$-3.115 \cdot 10^{-11}$	$-3.115 \cdot 10^{-11}$	$-5.778 \cdot 10^{-7}$	$9.443 \cdot 10^{-13}$	$9.443 \cdot 10^{-13}$	$-1.176 \cdot 10^{-6}$
$H z \rightarrow s \bar{s}$	$-1.051 \cdot 10^{-7}$	$-1.051 \cdot 10^{-7}$	$2.854 \cdot 10^{-7}$	$2.069 \cdot 10^{-8}$	$2.069 \cdot 10^{-8}$	$6.284 \cdot 10^{-7}$
$W^+ W^- \rightarrow H c \bar{c}$	$2.445 \cdot 10^{-13}$	$2.445 \cdot 10^{-13}$	$3.272 \cdot 10^{-7}$	$7.378 \cdot 10^{-22}$	$7.378 \cdot 10^{-22}$	$6.37 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d \bar{d}$	$3.224 \cdot 10^{-15}$	$3.224 \cdot 10^{-15}$	$-5.893 \cdot 10^{-7}$	$4.922 \cdot 10^{-16}$	$4.922 \cdot 10^{-16}$	$-1.178 \cdot 10^{-6}$
$b \bar{b} \rightarrow d \bar{d}$	$-1.299 \cdot 10^{-14}$	$-1.299 \cdot 10^{-14}$	$-5.39 \cdot 10^{-7}$	$3.933 \cdot 10^{-16}$	$3.933 \cdot 10^{-16}$	$-1.17 \cdot 10^{-6}$
$d \bar{d} \rightarrow c \bar{c}$	$-1.194 \cdot 10^{-15}$	$-1.194 \cdot 10^{-15}$	$-5.862 \cdot 10^{-7}$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$-1.184 \cdot 10^{-6}$
$d \bar{d} \rightarrow e^+ e^-$	$-6.49 \cdot 10^{-23}$	$-6.49 \cdot 10^{-23}$	$-5.855 \cdot 10^{-7}$	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	$-1.174 \cdot 10^{-6}$
$d \bar{d} \rightarrow s \bar{s}$	$-1.289 \cdot 10^{-17}$	$-1.289 \cdot 10^{-17}$	$-1.552 \cdot 10^{-7}$	$7.787 \cdot 10^{-19}$	$7.787 \cdot 10^{-19}$	$-2.697 \cdot 10^{-7}$
$s \bar{s} \rightarrow s \bar{s}$	$5.537 \cdot 10^{-8}$	$5.537 \cdot 10^{-8}$	$3.251 \cdot 10^{-7}$	$6.894 \cdot 10^{-16}$	$6.894 \cdot 10^{-16}$	$6.382 \cdot 10^{-7}$
$t \bar{t} \rightarrow d \bar{d}$	$-2.094 \cdot 10^{-11}$	$-2.094 \cdot 10^{-11}$	$-5.73 \cdot 10^{-7}$	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	$-1.17 \cdot 10^{-6}$
$t \bar{t} \rightarrow s \bar{s}$	$-8.275 \cdot 10^{-9}$	$-8.275 \cdot 10^{-9}$	$3.142 \cdot 10^{-7}$	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	$6.381 \cdot 10^{-7}$
$u \bar{d} \rightarrow u \bar{d}$	$-1.938 \cdot 10^{-21}$	$-1.938 \cdot 10^{-21}$	$-5.676 \cdot 10^{-7}$	$9.634 \cdot 10^{-23}$	$9.634 \cdot 10^{-23}$	$-1.173 \cdot 10^{-6}$

## 2.94 cdWIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^- u \bar{d}$	$1.602 \cdot 10^{-16}$	$1.602 \cdot 10^{-16}$	$-5.617 \cdot 10^{-7}$	$6.837 \cdot 10^{-15}$	$6.837 \cdot 10^{-15}$	$-1.17 \cdot 10^{-6}$
$HH \rightarrow z d \bar{d}$	$5.888 \cdot 10^{-15}$	$5.888 \cdot 10^{-15}$	$-5.774 \cdot 10^{-7}$	$2.109 \cdot 10^{-15}$	$2.109 \cdot 10^{-15}$	$-1.138 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u \bar{d}$	$-6.221 \cdot 10^{-16}$	$-6.221 \cdot 10^{-16}$	$-5.948 \cdot 10^{-7}$	$6.918 \cdot 10^{-16}$	$6.918 \cdot 10^{-16}$	$-1.185 \cdot 10^{-6}$
$HW^+ \rightarrow u \bar{d}$	$-8.338 \cdot 10^{-15}$	$-8.338 \cdot 10^{-15}$	$-5.877 \cdot 10^{-7}$	$1.47 \cdot 10^{-9}$	$1.47 \cdot 10^{-9}$	$-1.157 \cdot 10^{-6}$
$H\gamma \rightarrow d \bar{d}$	$1.478 \cdot 10^{-27}$	$1.478 \cdot 10^{-27}$	$-6.088 \cdot 10^{-7}$	$1.975 \cdot 10^{-10}$	$1.975 \cdot 10^{-10}$	$-1.215 \cdot 10^{-6}$
$H z \rightarrow s \bar{s}$	$-4.79 \cdot 10^{-11}$	$-4.79 \cdot 10^{-11}$	$3.132 \cdot 10^{-7}$	$2.981 \cdot 10^{-7}$	$2.981 \cdot 10^{-7}$	$6.375 \cdot 10^{-7}$
$W^+ W^- \rightarrow H c \bar{c}$	$1.174 \cdot 10^{-12}$	$1.174 \cdot 10^{-12}$	$3.408 \cdot 10^{-7}$	$1.023 \cdot 10^{-18}$	$1.023 \cdot 10^{-18}$	$5.864 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d \bar{d}$	$-1.003 \cdot 10^{-15}$	$-1.003 \cdot 10^{-15}$	$-5.98 \cdot 10^{-7}$	$1.033 \cdot 10^{-15}$	$1.033 \cdot 10^{-15}$	$-1.162 \cdot 10^{-6}$
$b \bar{t} \rightarrow d \bar{u}$	$-1.294 \cdot 10^{-26}$	$-1.228 \cdot 10^{-26}$	$0.05114$	$4.68 \cdot 10^{-12}$	$4.68 \cdot 10^{-12}$	$-1.175 \cdot 10^{-6}$
$b \bar{b} \rightarrow d \bar{d}$	$-1.266 \cdot 10^{-28}$	$-1.711 \cdot 10^{-28}$	$-0.3511$	$1.647 \cdot 10^{-12}$	$1.647 \cdot 10^{-12}$	$-1.153 \cdot 10^{-6}$

$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-5.812 \cdot 10^{-25}$	$-5.775 \cdot 10^{-25}$	$0.006503$	$3.807 \cdot 10^{-10}$	$3.807 \cdot 10^{-10}$	$6.305 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$5.553 \cdot 10^{-28}$	$5.554 \cdot 10^{-28}$	$-0.0001357$	$3.418 \cdot 10^{-12}$	$3.418 \cdot 10^{-12}$	$-1.17 \cdot 10^{-6}$
$d\bar{d} \rightarrow e^+ e^-$	$2.594 \cdot 10^{-27}$	$2.594 \cdot 10^{-27}$	$-5.398 \cdot 10^{-7}$	$1.473 \cdot 10^{-12}$	$1.473 \cdot 10^{-12}$	$-1.154 \cdot 10^{-6}$
$d\bar{d} \rightarrow s\bar{s}$	$1.764 \cdot 10^{-26}$	$1.701 \cdot 10^{-26}$	$0.03591$	$2.061 \cdot 10^{-10}$	$2.061 \cdot 10^{-10}$	$6.307 \cdot 10^{-7}$
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$5.508 \cdot 10^{-26}$	$5.508 \cdot 10^{-26}$	$2.547 \cdot 10^{-5}$	$3.597 \cdot 10^{-10}$	$3.597 \cdot 10^{-10}$	$6.394 \cdot 10^{-7}$
$s\bar{s} \rightarrow s\bar{s}$	$7.034 \cdot 10^{-25}$	$1.008 \cdot 10^{-24}$	$-0.4331$	$2.911 \cdot 10^{-9}$	$2.911 \cdot 10^{-9}$	$6.528 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$1.74 \cdot 10^{-28}$	$-8.407 \cdot 10^{-29}$	$1.483$	$3.678 \cdot 10^{-12}$	$3.678 \cdot 10^{-12}$	$-1.196 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$8.254 \cdot 10^{-25}$	$7.647 \cdot 10^{-25}$	$0.07359$	$2.445 \cdot 10^{-10}$	$2.445 \cdot 10^{-10}$	$6.545 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$7.8 \cdot 10^{-28}$	$9.15 \cdot 10^{-28}$	$-0.1731$	$2.726 \cdot 10^{-12}$	$2.726 \cdot 10^{-12}$	$-1.174 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$-4.785 \cdot 10^{-26}$	$-1.627 \cdot 10^{-25}$	$-2.401$	$2.115 \cdot 10^{-9}$	$2.115 \cdot 10^{-9}$	$6.147 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$2.272 \cdot 10^{-25}$	$2.307 \cdot 10^{-25}$	$-0.01567$	$1.489 \cdot 10^{-12}$	$1.489 \cdot 10^{-12}$	$-1.141 \cdot 10^{-6}$

## 2.95 cdWRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^- u\bar{d}$	$-5.436 \cdot 10^{-16}$	$-5.436 \cdot 10^{-16}$	$-5.887 \cdot 10^{-7}$	$2.47 \cdot 10^{-15}$	$2.47 \cdot 10^{-15}$	$-1.174 \cdot 10^{-6}$
$HH \rightarrow z d\bar{d}$	$-8.826 \cdot 10^{-15}$	$-8.826 \cdot 10^{-15}$	$-5.891 \cdot 10^{-7}$	$1.717 \cdot 10^{-15}$	$1.717 \cdot 10^{-15}$	$-1.165 \cdot 10^{-6}$
$HW^+ \rightarrow \gamma u\bar{d}$	$1.005 \cdot 10^{-16}$	$1.005 \cdot 10^{-16}$	$-5.972 \cdot 10^{-7}$	$1.791 \cdot 10^{-15}$	$1.791 \cdot 10^{-15}$	$-1.172 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$-3.719 \cdot 10^{-11}$	$-3.719 \cdot 10^{-11}$	$-5.647 \cdot 10^{-7}$	$1.217 \cdot 10^{-9}$	$1.217 \cdot 10^{-9}$	$-1.151 \cdot 10^{-6}$
$H\gamma \rightarrow d\bar{d}$	$4.248 \cdot 10^{-20}$	$4.248 \cdot 10^{-20}$	$-5.886 \cdot 10^{-7}$	$4.355 \cdot 10^{-10}$	$4.355 \cdot 10^{-10}$	$-1.171 \cdot 10^{-6}$
$H z \rightarrow s\bar{s}$	$-1.512 \cdot 10^{-8}$	$-1.512 \cdot 10^{-8}$	$2.646 \cdot 10^{-7}$	$3.919 \cdot 10^{-7}$	$3.919 \cdot 10^{-7}$	$6.379 \cdot 10^{-7}$
$W^+ W^- \rightarrow H c\bar{c}$	$-1.171 \cdot 10^{-13}$	$-1.171 \cdot 10^{-13}$	$2.562 \cdot 10^{-7}$	$2.411 \cdot 10^{-19}$	$2.411 \cdot 10^{-19}$	$6.637 \cdot 10^{-7}$
$W^+ W^- \rightarrow H d\bar{d}$	$-2.787 \cdot 10^{-15}$	$-2.787 \cdot 10^{-15}$	$-5.741 \cdot 10^{-7}$	$1.446 \cdot 10^{-15}$	$1.446 \cdot 10^{-15}$	$-1.176 \cdot 10^{-6}$
$\bar{b}t \rightarrow \bar{d}u$	$-8.328 \cdot 10^{-12}$	$-8.328 \cdot 10^{-12}$	$-5.884 \cdot 10^{-7}$	$8.595 \cdot 10^{-12}$	$8.595 \cdot 10^{-12}$	$-1.164 \cdot 10^{-6}$
$b\bar{b} \rightarrow d\bar{d}$	$-3.399 \cdot 10^{-12}$	$-3.399 \cdot 10^{-12}$	$-5.591 \cdot 10^{-7}$	$4.551 \cdot 10^{-12}$	$4.551 \cdot 10^{-12}$	$-1.164 \cdot 10^{-6}$
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-1.163 \cdot 10^{-9}$	$-1.163 \cdot 10^{-9}$	$3.439 \cdot 10^{-7}$	$9.672 \cdot 10^{-10}$	$9.672 \cdot 10^{-10}$	$6.307 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$-6.021 \cdot 10^{-13}$	$-6.021 \cdot 10^{-13}$	$-5.979 \cdot 10^{-7}$	$6.643 \cdot 10^{-13}$	$6.643 \cdot 10^{-13}$	$-1.174 \cdot 10^{-6}$
$d\bar{d} \rightarrow e^+ e^-$	$-5.633 \cdot 10^{-13}$	$-5.633 \cdot 10^{-13}$	$-5.858 \cdot 10^{-7}$	$6.245 \cdot 10^{-13}$	$6.245 \cdot 10^{-13}$	$-1.169 \cdot 10^{-6}$

$d\bar{d} \rightarrow s\bar{s}$	$-2.478 \cdot 10^{-9}$	$-2.478 \cdot 10^{-9}$	$3.228 \cdot 10^{-7}$	$3.817 \cdot 10^{-12}$	$3.817 \cdot 10^{-12}$	$6.287 \cdot 10^{-7}$
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-3.361 \cdot 10^{-10}$	$-3.361 \cdot 10^{-10}$	$3.273 \cdot 10^{-7}$	$6.152 \cdot 10^{-10}$	$6.152 \cdot 10^{-10}$	$6.34 \cdot 10^{-7}$
$s\bar{s} \rightarrow s\bar{s}$	$-2.703 \cdot 10^{-8}$	$-2.703 \cdot 10^{-8}$	$3.329 \cdot 10^{-7}$	$6.491 \cdot 10^{-9}$	$6.491 \cdot 10^{-9}$	$6.316 \cdot 10^{-7}$
$t\bar{t} \rightarrow d\bar{d}$	$-1.283 \cdot 10^{-11}$	$-1.283 \cdot 10^{-11}$	$-5.457 \cdot 10^{-7}$	$1.36 \cdot 10^{-12}$	$1.36 \cdot 10^{-12}$	$-1.176 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$3.159 \cdot 10^{-10}$	$3.159 \cdot 10^{-10}$	$3.165 \cdot 10^{-7}$	$1.61 \cdot 10^{-9}$	$1.61 \cdot 10^{-9}$	$6.209 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-3.777 \cdot 10^{-12}$	$-3.777 \cdot 10^{-12}$	$-5.825 \cdot 10^{-7}$	$6.926 \cdot 10^{-13}$	$6.926 \cdot 10^{-13}$	$-1.184 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$-2.453 \cdot 10^{-9}$	$-2.453 \cdot 10^{-9}$	$3.261 \cdot 10^{-7}$	$3.691 \cdot 10^{-9}$	$3.691 \cdot 10^{-9}$	$6.503 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$5.662 \cdot 10^{-10}$	$5.662 \cdot 10^{-10}$	$-5.829 \cdot 10^{-7}$	$8.305 \cdot 10^{-11}$	$8.305 \cdot 10^{-11}$	$-1.168 \cdot 10^{-6}$

## 2.96 cdd1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$d\bar{d} \rightarrow s\bar{s}$	0.01089	0.01089	0	0.7633	0.7633	0
$s\bar{s} \rightarrow s\bar{s}$	-6.692	-6.692	0	6.757	6.757	0

## 2.97 cdd8

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$d\bar{d} \rightarrow s\bar{s}$	1.316	1.316	0	0.888	0.888	0
$s\bar{s} \rightarrow s\bar{s}$	-0.004935	-0.004935	$-1.013 \cdot 10^{-7}$	0.03259	0.03259	$-1.841 \cdot 10^{-7}$

## 2.98 ceBIm11

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow ze^+e^-$	$3.241 \cdot 10^{-13}$	$3.241 \cdot 10^{-13}$	0	$2.296 \cdot 10^{-7}$	$2.296 \cdot 10^{-7}$	0

$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$4.497 \cdot 10^{-13}$	$4.497 \cdot 10^{-13}$	0	$2.38 \cdot 10^{-8}$	$2.38 \cdot 10^{-8}$	0
$H\gamma \rightarrow e^+ e^-$	$2.138 \cdot 10^{-32}$	$2.138 \cdot 10^{-32}$	0	0.03166	0.03166	0
$d\bar{d} \rightarrow e^+ e^-$	$2.735 \cdot 10^{-24}$	$2.735 \cdot 10^{-24}$	0	0.0002878	0.0002878	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	$-6.397 \cdot 10^{-23}$	$-6.397 \cdot 10^{-23}$	0	0.009718	0.009718	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	$-3.076 \cdot 10^{-22}$	$-3.076 \cdot 10^{-22}$	0	0.001321	0.001321	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	$-1.488 \cdot 10^{-17}$	$-1.488 \cdot 10^{-17}$	0	0.006554	0.006554	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$4.137 \cdot 10^{-23}$	$4.137 \cdot 10^{-23}$	0	0.008813	0.008813	0
$e^+ e^- \rightarrow e^+ e^-$	$-1.129 \cdot 10^{-22}$	$-1.129 \cdot 10^{-22}$	0	0.1166	0.1166	0

## 2.99 ceBIm22

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HZ \rightarrow \mu^+ \mu^-$	$-1.16 \cdot 10^{-9}$	$-1.16 \cdot 10^{-9}$	0	0.1608	0.1608	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$-2.563 \cdot 10^{-22}$	$-2.563 \cdot 10^{-22}$	0	0.005305	0.005305	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-1.163 \cdot 10^{-24}$	$-1.163 \cdot 10^{-24}$	0	0.0003437	0.0003437	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$9.18 \cdot 10^{-26}$	$9.18 \cdot 10^{-26}$	0	0.000413	0.000413	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$1.697 \cdot 10^{-22}$	$1.697 \cdot 10^{-22}$	0	0.008534	0.008534	0

## 2.100 ceBIm33

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$-3.308 \cdot 10^{-22}$	$-3.308 \cdot 10^{-22}$	0	0.00294	0.00294	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	$3.381 \cdot 10^{-14}$	$3.381 \cdot 10^{-14}$	0	0.1072	0.1072	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$1.787 \cdot 10^{-20}$	$1.787 \cdot 10^{-20}$	0	0.0008797	0.0008797	0

## 2.101 ceBRe11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow ze^+e^-$	$6.144 \cdot 10^{-13}$	$6.144 \cdot 10^{-13}$	0	$4.591 \cdot 10^{-7}$	$4.591 \cdot 10^{-7}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-1.294 \cdot 10^{-13}$	$-1.294 \cdot 10^{-13}$	0	$1.057 \cdot 10^{-8}$	$1.057 \cdot 10^{-8}$	0
$H\gamma \rightarrow e^+e^-$	$1.106 \cdot 10^{-18}$	$1.106 \cdot 10^{-18}$	0	0.711	0.711	0
$d\bar{d} \rightarrow e^+e^-$	$2.225 \cdot 10^{-10}$	$2.225 \cdot 10^{-10}$	0	0.0003328	0.0003328	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	$1.279 \cdot 10^{-8}$	$1.279 \cdot 10^{-8}$	0	0.002133	0.002133	0
$e^+\nu_e \rightarrow e^+\nu_e$	$9.163 \cdot 10^{-8}$	$9.163 \cdot 10^{-8}$	0	0.02821	0.02821	0
$e^+\tau^- \rightarrow e^+\tau^-$	$1.916 \cdot 10^{-8}$	$1.916 \cdot 10^{-8}$	0	0.008328	0.008328	0
$e^+e^- \rightarrow \mu^+\mu^-$	$3.988 \cdot 10^{-8}$	$3.988 \cdot 10^{-8}$	0	0.009333	0.009333	0
$e^+e^- \rightarrow e^+e^-$	$1.234 \cdot 10^{-7}$	$1.234 \cdot 10^{-7}$	0	0.09892	0.09892	0

## 2.102 ceBRe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HZ \rightarrow \mu^+\mu^-$	$-5.649 \cdot 10^{-7}$	$-5.649 \cdot 10^{-7}$	0	0.1371	0.1371	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$9.848 \cdot 10^{-6}$	$9.848 \cdot 10^{-6}$	0	0.003512	0.003512	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$6.01 \cdot 10^{-9}$	$6.01 \cdot 10^{-9}$	0	0.0002083	0.0002083	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$7.327 \cdot 10^{-7}$	$7.327 \cdot 10^{-7}$	0	0.0008478	0.0008478	0
$e^+e^- \rightarrow \mu^+\mu^-$	$6.064 \cdot 10^{-6}$	$6.064 \cdot 10^{-6}$	0	0.006029	0.006029	0

## 2.103 ceBRe33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.0001105	0.0001105	0	0.007949	0.007949	0
$e^+\tau^- \rightarrow e^+\tau^-$	$-3.298 \cdot 10^{-5}$	$-3.298 \cdot 10^{-5}$	0	0.05268	0.05268	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-3.033 \cdot 10^{-5}$	$-3.033 \cdot 10^{-5}$	0	0.0003056	0.0003056	0

## 2.104 ceHIm11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ e^- \bar{\nu}_e$	$1.532 \cdot 10^{-11}$	$1.532 \cdot 10^{-11}$	0	$8.906 \cdot 10^{-7}$	$8.906 \cdot 10^{-7}$	0
$HH \rightarrow z e^+ e^-$	$-5.165 \cdot 10^{-13}$	$-5.165 \cdot 10^{-13}$	0	$1.36 \cdot 10^{-7}$	$1.36 \cdot 10^{-7}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-6.208 \cdot 10^{-14}$	$-6.208 \cdot 10^{-14}$	0	$3.125 \cdot 10^{-8}$	$3.125 \cdot 10^{-8}$	0
$H\gamma \rightarrow e^+ e^-$	$3.176 \cdot 10^{-22}$	$3.176 \cdot 10^{-22}$	0	0.01142	0.01142	0
$d\bar{d} \rightarrow e^+ e^-$	$4.461 \cdot 10^{-34}$	$4.461 \cdot 10^{-34}$	0	$2.274 \cdot 10^{-13}$	$2.274 \cdot 10^{-13}$	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	$-4.388 \cdot 10^{-20}$	$-4.388 \cdot 10^{-20}$	0	$6.845 \cdot 10^{-8}$	$6.845 \cdot 10^{-8}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$-3.266 \cdot 10^{-30}$	$-3.266 \cdot 10^{-30}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
$e^+ e^- \rightarrow e^+ e^-$	$1.105 \cdot 10^{-24}$	$1.105 \cdot 10^{-24}$	0	$6.317 \cdot 10^{-14}$	$6.317 \cdot 10^{-14}$	0

## 2.105 ceHIm22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$6.734 \cdot 10^{-8}$	$6.734 \cdot 10^{-8}$	0	0.02027	0.02027	0
$H z \rightarrow \mu^+ \mu^-$	$-1.242 \cdot 10^{-13}$	$-1.242 \cdot 10^{-13}$	0	0.02021	0.02021	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$7.26 \cdot 10^{-27}$	$7.26 \cdot 10^{-27}$	0	$9.878 \cdot 10^{-8}$	$9.878 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$4.795 \cdot 10^{-26}$	$4.795 \cdot 10^{-26}$	0	$1.822 \cdot 10^{-7}$	$1.822 \cdot 10^{-7}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-6.171 \cdot 10^{-29}$	$-6.171 \cdot 10^{-29}$	0	$1.682 \cdot 10^{-8}$	$1.682 \cdot 10^{-8}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$9.821 \cdot 10^{-33}$	$9.821 \cdot 10^{-33}$	0	$8.169 \cdot 10^{-15}$	$8.169 \cdot 10^{-15}$	0

## 2.106 ceHIm33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow H \tau^+ \tau^-$	$6.647 \cdot 10^{-12}$	$6.647 \cdot 10^{-12}$	0	$1.966 \cdot 10^{-6}$	$1.966 \cdot 10^{-6}$	0

$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$4.481 \cdot 10^{-27}$	$4.481 \cdot 10^{-27}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	$4.997 \cdot 10^{-26}$	$4.997 \cdot 10^{-26}$	0	$5.659 \cdot 10^{-15}$	$5.659 \cdot 10^{-15}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$1.357 \cdot 10^{-21}$	$1.357 \cdot 10^{-21}$	0	0.0002929	0.0002929	0

## 2.107 ceHRe11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-1.467 \cdot 10^{-11}$	$-1.467 \cdot 10^{-11}$	0	$5.044 \cdot 10^{-7}$	$5.044 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	$1.028 \cdot 10^{-12}$	$1.028 \cdot 10^{-12}$	0	$3.537 \cdot 10^{-7}$	$3.537 \cdot 10^{-7}$	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-4.433 \cdot 10^{-14}$	$-4.433 \cdot 10^{-14}$	0	$5.003 \cdot 10^{-10}$	$5.003 \cdot 10^{-10}$	0
$H\gamma \rightarrow e^+e^-$	$-1.756 \cdot 10^{-7}$	$-1.756 \cdot 10^{-7}$	0	0.001814	0.001814	0
$d\bar{d} \rightarrow e^+e^-$	$-2.194 \cdot 10^{-17}$	$-2.194 \cdot 10^{-17}$	0	$2.274 \cdot 10^{-13}$	$2.274 \cdot 10^{-13}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	$-1.398 \cdot 10^{-11}$	$-1.398 \cdot 10^{-11}$	0	$8.483 \cdot 10^{-8}$	$8.483 \cdot 10^{-8}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	$-3.356 \cdot 10^{-14}$	$-3.356 \cdot 10^{-14}$	0	$3.493 \cdot 10^{-10}$	$3.493 \cdot 10^{-10}$	0
$e^+e^- \rightarrow e^+e^-$	$6.145 \cdot 10^{-8}$	$6.145 \cdot 10^{-8}$	0	$9.335 \cdot 10^{-14}$	$9.335 \cdot 10^{-14}$	0

## 2.108 ceHRe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	$-1.806 \cdot 10^{-5}$	$-1.806 \cdot 10^{-5}$	0	0.02142	0.02142	0
$H\gamma \rightarrow \mu^+\mu^-$	$2.074 \cdot 10^{-6}$	$2.074 \cdot 10^{-6}$	0	0.02028	0.02028	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$-1.964 \cdot 10^{-9}$	$-1.964 \cdot 10^{-9}$	0	$9.878 \cdot 10^{-8}$	$9.878 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-3.621 \cdot 10^{-9}$	$-3.621 \cdot 10^{-9}$	0	$1.822 \cdot 10^{-7}$	$1.822 \cdot 10^{-7}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-3.32 \cdot 10^{-10}$	$-3.32 \cdot 10^{-10}$	0	$1.682 \cdot 10^{-8}$	$1.682 \cdot 10^{-8}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	$-1.668 \cdot 10^{-16}$	$-1.668 \cdot 10^{-16}$	0	$8.169 \cdot 10^{-15}$	$8.169 \cdot 10^{-15}$	0



## 2.109 ceHRe33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow H\tau^+\tau^-$	$-2.049 \cdot 10^{-8}$	$-2.049 \cdot 10^{-8}$	0	$2.042 \cdot 10^{-6}$	$2.042 \cdot 10^{-6}$	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$-1.168 \cdot 10^{-10}$	$-1.168 \cdot 10^{-10}$	0	$3.492 \cdot 10^{-10}$	$3.492 \cdot 10^{-10}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	$-2.775 \cdot 10^{-15}$	$-2.775 \cdot 10^{-15}$	0	$7.515 \cdot 10^{-15}$	$7.515 \cdot 10^{-15}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-9.962 \cdot 10^{-5}$	$-9.962 \cdot 10^{-5}$	0	0.0002929	0.0002929	0

## 2.110 ceWIm11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+e^-\bar{\nu}_e$	$2.768 \cdot 10^{-12}$	$2.768 \cdot 10^{-12}$	0	$8.503 \cdot 10^{-7}$	$8.503 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	$2.652 \cdot 10^{-13}$	$2.652 \cdot 10^{-13}$	0	$4.686 \cdot 10^{-7}$	$4.686 \cdot 10^{-7}$	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-9.069 \cdot 10^{-14}$	$-9.069 \cdot 10^{-14}$	0	$5.159 \cdot 10^{-7}$	$5.159 \cdot 10^{-7}$	0
$H\gamma \rightarrow e^+e^-$	$3.542 \cdot 10^{-23}$	$3.542 \cdot 10^{-23}$	0	0.2332	0.2332	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	$8.527 \cdot 10^{-23}$	$8.527 \cdot 10^{-23}$	0	0.003007	0.003007	0
$d\bar{d} \rightarrow e^+e^-$	$3.507 \cdot 10^{-24}$	$3.507 \cdot 10^{-24}$	0	0.0005346	0.0005346	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	$2.391 \cdot 10^{-24}$	$2.391 \cdot 10^{-24}$	0	0.0476	0.0476	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	$-3.008 \cdot 10^{-23}$	$-3.008 \cdot 10^{-23}$	0	0.01083	0.01083	0
$e^+\nu_e \rightarrow e^+\nu_e$	$-4.696 \cdot 10^{-20}$	$-4.696 \cdot 10^{-20}$	0	0.1939	0.1939	0
$e^+\tau^- \rightarrow e^+\tau^-$	$3.517 \cdot 10^{-17}$	$3.517 \cdot 10^{-17}$	0	0.01378	0.01378	0
$e^+e^- \rightarrow \mu^+\mu^-$	$7.659 \cdot 10^{-24}$	$7.659 \cdot 10^{-24}$	0	0.004045	0.004045	0
$e^+e^- \rightarrow e^+e^-$	$-1.118 \cdot 10^{-22}$	$-1.118 \cdot 10^{-22}$	0	0.01534	0.01534	0

## 2.111 ceWIm22

interference square

	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$-2.818 \cdot 10^{-8}$	$-2.818 \cdot 10^{-8}$	0		0.3993	0.3993	0
$HZ \rightarrow \mu^+ \mu^-$	$2.408 \cdot 10^{-8}$	$2.408 \cdot 10^{-8}$	0		0.4378	0.4378	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$1.568 \cdot 10^{-21}$	$1.568 \cdot 10^{-21}$	0		0.005904	0.005904	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$1.241 \cdot 10^{-23}$	$1.241 \cdot 10^{-23}$	0		0.0004113	0.0004113	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-2.746 \cdot 10^{-23}$	$-2.746 \cdot 10^{-23}$	0		0.0004718	0.0004718	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	$5.021 \cdot 10^{-33}$	$5.021 \cdot 10^{-33}$	0		0.009951	0.009951	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$-1.872 \cdot 10^{-22}$	$-1.872 \cdot 10^{-22}$	0		0.001718	0.001718	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$1.453 \cdot 10^{-24}$	$1.453 \cdot 10^{-24}$	0		0.001985	0.001985	0

## 2.112 ceWIm33

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\mu^+\mu^-\rightarrow\tau^+\tau^-$	$7.651\cdot 10^{-24}$	$7.651\cdot 10^{-24}$	0	0.001224	0.001224	0
$c\bar{s}\rightarrow\tau^+\nu_\tau$	$1.958\cdot 10^{-22}$	$1.958\cdot 10^{-22}$	0	0.004215	0.004215	0
$e^+\tau^-\rightarrow e^+\tau^-$	$3.402\cdot 10^{-14}$	$3.402\cdot 10^{-14}$	0	0.005416	0.005416	0
$t\bar{t}\rightarrow\tau^+\tau^-$	$-6.451\cdot 10^{-20}$	$-6.451\cdot 10^{-20}$	0	0.00131	0.00131	0

## 2.113 ceWRe11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ e^- \bar{\nu}_e$	$-6.813 \cdot 10^{-12}$	$-6.813 \cdot 10^{-12}$	0	$6.32 \cdot 10^{-7}$	$6.32 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	$-6.245 \cdot 10^{-14}$	$-6.245 \cdot 10^{-14}$	0	$1.319 \cdot 10^{-7}$	$1.319 \cdot 10^{-7}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$9.242 \cdot 10^{-13}$	$9.242 \cdot 10^{-13}$	0	$2.538 \cdot 10^{-7}$	$2.538 \cdot 10^{-7}$	0
$H\gamma \rightarrow e^+e^-$	$-3.349 \cdot 10^{-18}$	$-3.349 \cdot 10^{-18}$	0	0.2318	0.2318	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-1.037 \cdot 10^{-8}$	$-1.037 \cdot 10^{-8}$	0	0.004154	0.004154	0
$d\bar{d} \rightarrow e^+e^-$	$-3.045 \cdot 10^{-9}$	$-3.045 \cdot 10^{-9}$	0	0.00215	0.00215	0

$e^+\nu_\mu \rightarrow e^+\nu_\mu$	$3.77 \cdot 10^{-8}$	$3.77 \cdot 10^{-8}$	0	0.0188	0.0188	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	$-1.458 \cdot 10^{-8}$	$-1.458 \cdot 10^{-8}$	0	0.01077	0.01077	0
$e^+\nu_e \rightarrow e^+\nu_e$	$8.073 \cdot 10^{-8}$	$8.073 \cdot 10^{-8}$	0	0.3094	0.3094	0
$e^+\tau^- \rightarrow e^+\tau^-$	$1.167 \cdot 10^{-8}$	$1.167 \cdot 10^{-8}$	0	0.04022	0.04022	0
$e^+e^- \rightarrow \mu^+\mu^-$	$-2.548 \cdot 10^{-8}$	$-2.548 \cdot 10^{-8}$	0	0.005984	0.005984	0
$e^+e^- \rightarrow e^+e^-$	$-6.928 \cdot 10^{-8}$	$-6.928 \cdot 10^{-8}$	0	0.07256	0.07256	0

## 2.114 ceWRe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$-1.203 \cdot 10^{-5}$	$-1.203 \cdot 10^{-5}$	0	0.6826	0.6826	0
$HZ \rightarrow \mu^+\mu^-$	$-1.023 \cdot 10^{-6}$	$-1.023 \cdot 10^{-6}$	0	0.08867	0.08867	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$-5.7 \cdot 10^{-6}$	$-5.7 \cdot 10^{-6}$	0	0.004772	0.004772	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-4.315 \cdot 10^{-7}$	$-4.315 \cdot 10^{-7}$	0	0.002097	0.002097	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-1.157 \cdot 10^{-6}$	$-1.157 \cdot 10^{-6}$	0	0.002134	0.002134	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	$-3.014 \cdot 10^{-6}$	$-3.014 \cdot 10^{-6}$	0	0.01077	0.01077	0
$e^+e^- \rightarrow \mu^+\mu^-$	$-5.269 \cdot 10^{-6}$	$-5.269 \cdot 10^{-6}$	0	0.005984	0.005984	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-2.502 \cdot 10^{-6}$	$-2.502 \cdot 10^{-6}$	0	0.003324	0.003324	0

## 2.115 ceWRe33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$-7.094 \cdot 10^{-5}$	$-7.094 \cdot 10^{-5}$	0	0.005714	0.005714	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$-4.16 \cdot 10^{-5}$	$-4.16 \cdot 10^{-5}$	0	0.00339	0.00339	0
$e^+\tau^- \rightarrow e^+\tau^-$	0.0001478	0.0001478	0	0.0872	0.0872	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$2.318 \cdot 10^{-6}$	$2.318 \cdot 10^{-6}$	0	0.001765	0.001765	0

## 2.116 ced11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+e^-$	0.002143	0.002143	0	0.02503	0.02503	0

## 2.117 cee1111

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+e^- \rightarrow e^+e^-$	-0.3634	-0.3634	0	4.765	4.765	0

## 2.118 cee1122

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+e^- \rightarrow \mu^+\mu^-$	0.1448	0.1448	0	0.5637	0.5637	0

## 2.119 cee1133

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+\tau^- \rightarrow e^+\tau^-$	-0.2541	-0.2541	0	0.3812	0.3812	0

## 2.120 cee2233

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.01346	0.01346	0	0.05241	0.05241	0
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## 2.121 ceu22

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.02604	-0.02604	0	0.1521	0.1521	0

## 2.122 cjQbd1Im

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\bar{b}t \rightarrow \bar{d}u$	$-9.897 \cdot 10^{-16}$	$-9.897 \cdot 10^{-16}$	$-5.86 \cdot 10^{-7}$	$7.195 \cdot 10^{-10}$	$7.195 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
$b\bar{b} \rightarrow d\bar{d}$	$-8.89 \cdot 10^{-29}$	$9.063 \cdot 10^{-29}$	2.019	$1.439 \cdot 10^{-9}$	$1.439 \cdot 10^{-9}$	$-1.181 \cdot 10^{-6}$

## 2.123 cjQbd1Re

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\bar{b}t \rightarrow \bar{d}u$	$5.919 \cdot 10^{-12}$	$5.919 \cdot 10^{-12}$	$-5.913 \cdot 10^{-7}$	$7.195 \cdot 10^{-10}$	$7.195 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$
$b\bar{b} \rightarrow d\bar{d}$	$1.284 \cdot 10^{-11}$	$1.284 \cdot 10^{-11}$	$-5.453 \cdot 10^{-7}$	$1.439 \cdot 10^{-9}$	$1.439 \cdot 10^{-9}$	$-1.181 \cdot 10^{-6}$

## 2.124 cjQbd8Im

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\bar{b}t \rightarrow \bar{d}u$	$-1.323 \cdot 10^{-15}$	$-1.323 \cdot 10^{-15}$	$-6.047 \cdot 10^{-7}$	$1.599 \cdot 10^{-10}$	$1.599 \cdot 10^{-10}$	$-1.126 \cdot 10^{-6}$
$b\bar{b} \rightarrow d\bar{d}$	$6.917 \cdot 10^{-28}$	$-1.054 \cdot 10^{-27}$	2.523	$3.198 \cdot 10^{-10}$	$3.198 \cdot 10^{-10}$	$-1.157 \cdot 10^{-6}$

## 2.125 cjQbd8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$7.937 \cdot 10^{-12}$	$7.937 \cdot 10^{-12}$	$-5.922 \cdot 10^{-7}$	$1.599 \cdot 10^{-10}$	$1.599 \cdot 10^{-10}$	$-1.188 \cdot 10^{-6}$
$\bar{b}\bar{b} \rightarrow d\bar{d}$	$1.564 \cdot 10^{-11}$	$1.564 \cdot 10^{-11}$	$-5.755 \cdot 10^{-7}$	$3.198 \cdot 10^{-10}$	$3.198 \cdot 10^{-10}$	$-1.157 \cdot 10^{-6}$

## 2.126 cjQtu1Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$8.559 \cdot 10^{-15}$	$8.559 \cdot 10^{-15}$	$-7.244 \cdot 10^{-7}$	$1.539 \cdot 10^{-10}$	$1.539 \cdot 10^{-10}$	$-1.429 \cdot 10^{-6}$
$t\bar{t} \rightarrow c\bar{c}$	$-2.597 \cdot 10^{-22}$	$-3.484 \cdot 10^{-21}$	$-12.41$	0.0001065	0.0001065	$2.817 \cdot 10^{-7}$

## 2.127 cjQtu1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$5.112 \cdot 10^{-11}$	$5.112 \cdot 10^{-11}$	$-7.238 \cdot 10^{-7}$	$1.539 \cdot 10^{-10}$	$1.539 \cdot 10^{-10}$	$-1.494 \cdot 10^{-6}$
$t\bar{t} \rightarrow c\bar{c}$	$4.152 \cdot 10^{-5}$	$4.152 \cdot 10^{-5}$	$1.204 \cdot 10^{-7}$	0.0001065	0.0001065	$2.817 \cdot 10^{-7}$

## 2.128 cjQtu8Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$1.136 \cdot 10^{-14}$	$1.136 \cdot 10^{-14}$	$-7.924 \cdot 10^{-7}$	$3.42 \cdot 10^{-11}$	$3.42 \cdot 10^{-11}$	$-1.433 \cdot 10^{-6}$
$t\bar{t} \rightarrow c\bar{c}$	$1.763 \cdot 10^{-21}$	$-1.45 \cdot 10^{-21}$	1.822	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	$2.957 \cdot 10^{-7}$

## 2.129 cjQtu8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$6.819 \cdot 10^{-11}$	$6.819 \cdot 10^{-11}$	$-7.186 \cdot 10^{-7}$	$3.42 \cdot 10^{-11}$	$3.42 \cdot 10^{-11}$	$-1.462 \cdot 10^{-6}$
$t\bar{t} \rightarrow c\bar{c}$	$4.751 \cdot 10^{-5}$	$4.751 \cdot 10^{-5}$	$1.263 \cdot 10^{-7}$	$2.367 \cdot 10^{-5}$	$2.367 \cdot 10^{-5}$	$2.535 \cdot 10^{-7}$

## 2.130 cjd1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	-0.008006	-0.008006	0	0.5722	0.5722	0
$d\bar{d} \rightarrow s\bar{s}$	-0.02744	-0.02744	0	1.887	1.887	0
$s\bar{s} \rightarrow s\bar{s}$	0.005204	0.005204	0	3.711	3.711	0
$u\bar{d} \rightarrow u\bar{d}$	0.01482	0.01482	0	1	1	0

## 2.131 cjd8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	0.2968	0.2968	0	0.1002	0.1002	0
$d\bar{d} \rightarrow s\bar{s}$	0.9362	0.9362	0	0.316	0.316	0
$s\bar{s} \rightarrow s\bar{s}$	-5.769	-5.769	0	0.4671	0.4671	0
$u\bar{d} \rightarrow u\bar{d}$	-0.7035	-0.7035	0	0.2222	0.2222	0

## 2.132 cje11

interference square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+e^-$	-0.01141	-0.01141	0	0.2615	0.2615	0

### 2.133 cje22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.009604	-0.009604	0	0.2288	0.2288	0

### 2.134 cjj11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	-0.04417	-0.04417	0	0.4321	0.4321	0
$d\bar{d} \rightarrow s\bar{s}$	0.01077	0.01077	0	0.0984	0.0984	0
$s\bar{s} \rightarrow s\bar{s}$	-6.56	-6.56	0	6.396	6.396	0
$u\bar{d} \rightarrow u\bar{d}$	0.002924	0.002924	0	0.0164	0.0164	0
$u\bar{u} \rightarrow c\bar{c}$	0.4034	0.4034	0	3.693	3.693	0
$u\bar{u} \rightarrow u\bar{u}$	-25.04	-25.04	0	8.748	8.748	0

### 2.135 cjj18

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	0.8914	0.8914	$1.122 \cdot 10^{-8}$	0.6016	0.6016	0
$d\bar{d} \rightarrow s\bar{s}$	0.1379	0.1379	0	0.09305	0.09305	0
$s\bar{s} \rightarrow s\bar{s}$	-0.02172	-0.02172	0	0.07338	0.07338	$-2.726 \cdot 10^{-8}$
$u\bar{d} \rightarrow u\bar{d}$	-0.3611	-0.3611	$2.77 \cdot 10^{-8}$	0.1654	0.1654	0



$u\bar{u} \rightarrow c\bar{c}$	0.03782	0.03782	0	0.02553	0.02553	0
$u\bar{u} \rightarrow u\bar{u}$	-0.34	-0.34	0	0.3339	0.3339	$-2.995 \cdot 10^{-8}$

### 2.136 cjj31

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$d\bar{d} \rightarrow c\bar{c}$	0.001724	0.001724	0	0.01686	0.01686	0
$d\bar{d} \rightarrow s\bar{s}$	0.2891	0.2891	0	2.64	2.64	0
$s\bar{s} \rightarrow s\bar{s}$	-308.3	-308.3	0	10.47	10.47	0
$u\bar{d} \rightarrow c\bar{s}$	1.161	1.161	0	10.97	10.97	0
$u\bar{d} \rightarrow u\bar{d}$	-0.07659	-0.07659	0	0.2352	0.2352	0
$u\bar{u} \rightarrow c\bar{c}$	0.1637	0.1637	0	1.499	1.499	0
$u\bar{u} \rightarrow u\bar{u}$	-10.48	-10.48	0	7.303	7.303	0

### 2.137 cjj38

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$d\bar{d} \rightarrow c\bar{c}$	-0.6984	-0.6984	0	0.4714	0.4714	0
$d\bar{d} \rightarrow s\bar{s}$	0.4181	0.4181	0	0.2822	0.2822	0
$s\bar{s} \rightarrow s\bar{s}$	-0.353	-0.353	$-8.499 \cdot 10^{-8}$	0.3404	0.3404	$-1.763 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-2.233 \cdot 10^{-8}$	$1.234 \cdot 10^{-17}$	1	1.407	1.407	0
$u\bar{d} \rightarrow u\bar{d}$	35.29	35.29	$5.667 \cdot 10^{-8}$	4.95	4.95	$8.08 \cdot 10^{-8}$
$u\bar{u} \rightarrow c\bar{c}$	0.01357	0.01357	0	0.009159	0.009159	0
$u\bar{u} \rightarrow u\bar{u}$	-0.1178	-0.1178	$-1.698 \cdot 10^{-7}$	0.1934	0.1934	$-2.069 \cdot 10^{-7}$

### 2.138 cjtQd1Im

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$1.61 \cdot 10^{-14}$	$1.61 \cdot 10^{-14}$	$-6.211 \cdot 10^{-7}$	$1.16 \cdot 10^{-10}$	$1.16 \cdot 10^{-10}$	$-1.121 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$3.727 \cdot 10^{-27}$	$2.94 \cdot 10^{-27}$	$0.2111$	$2.682 \cdot 10^{-10}$	$2.682 \cdot 10^{-10}$	$-1.193 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$1.245 \cdot 10^{-25}$	$5.321 \cdot 10^{-26}$	$0.5726$	$1.049 \cdot 10^{-9}$	$1.049 \cdot 10^{-9}$	$6.67 \cdot 10^{-7}$

### 2.139 cjtQd1Re

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-1.123 \cdot 10^{-10}$	$-1.123 \cdot 10^{-10}$	$-6.234 \cdot 10^{-7}$	$1.582 \cdot 10^{-10}$	$1.582 \cdot 10^{-10}$	$-1.201 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$-7.965 \cdot 10^{-11}$	$-7.965 \cdot 10^{-11}$	$-5.901 \cdot 10^{-7}$	$2.16 \cdot 10^{-10}$	$2.16 \cdot 10^{-10}$	$-1.158 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$1.673 \cdot 10^{-8}$	$1.673 \cdot 10^{-8}$	$3.586 \cdot 10^{-7}$	$1.97 \cdot 10^{-9}$	$1.97 \cdot 10^{-9}$	$6.598 \cdot 10^{-7}$

### 2.140 cjtQd8Im

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$2.289 \cdot 10^{-14}$	$2.289 \cdot 10^{-14}$	$-5.679 \cdot 10^{-7}$	$2.93 \cdot 10^{-11}$	$2.93 \cdot 10^{-11}$	$-1.161 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$-4.408 \cdot 10^{-27}$	$-4.929 \cdot 10^{-27}$	$-0.1182$	$1.01 \cdot 10^{-11}$	$1.01 \cdot 10^{-11}$	$-1.188 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-4.121 \cdot 10^{-24}$	$-6.861 \cdot 10^{-24}$	$-0.6649$	$1.709 \cdot 10^{-8}$	$1.709 \cdot 10^{-8}$	$6.438 \cdot 10^{-7}$

### 2.141 cjtQd8Re

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-5.064 \cdot 10^{-11}$	$-5.064 \cdot 10^{-11}$	$-5.727 \cdot 10^{-7}$	$4.054 \cdot 10^{-12}$	$4.054 \cdot 10^{-12}$	$-1.159 \cdot 10^{-6}$
$t\bar{t} \rightarrow d\bar{d}$	$-4.74 \cdot 10^{-11}$	$-4.74 \cdot 10^{-11}$	$-5.696 \cdot 10^{-7}$	$1.44 \cdot 10^{-12}$	$1.44 \cdot 10^{-12}$	$-1.18 \cdot 10^{-6}$
$t\bar{t} \rightarrow s\bar{s}$	$-1.103 \cdot 10^{-8}$	$-1.103 \cdot 10^{-8}$	$3.626 \cdot 10^{-7}$	$1.799 \cdot 10^{-10}$	$1.799 \cdot 10^{-10}$	$6.669 \cdot 10^{-7}$

## 2.142 cju1

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	0.0009138	0.0009138	0	0.03144	0.03144	0
$u\bar{d} \rightarrow u\bar{d}$	−0.04825	−0.04825	0	1	1	0
$u\bar{u} \rightarrow c\bar{c}$	0.03861	0.03861	0	1.38	1.38	0
$u\bar{u} \rightarrow u\bar{u}$	−0.1134	−0.1134	0	2.44	2.44	0

## 2.143 cju8

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	0.02023	0.02023	0	0.006829	0.006829	0
$u\bar{d} \rightarrow u\bar{d}$	−2.816	−2.816	0	0.2222	0.2222	0
$u\bar{u} \rightarrow c\bar{c}$	0.1679	0.1679	0	0.05665	0.05665	0
$u\bar{u} \rightarrow u\bar{u}$	−3.537	−3.537	0	0.5006	0.5006	0

## 2.144 cjuQb1Im

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$−3.193 \cdot 10^{-16}$	$−3.193 \cdot 10^{-16}$	$−7.203 \cdot 10^{-7}$	$3.848 \cdot 10^{-11}$	$3.848 \cdot 10^{-11}$	$−1.455 \cdot 10^{-6}$
$\bar{b}\bar{b} \rightarrow u\bar{u}$	$−6.754 \cdot 10^{-29}$	$−5.632 \cdot 10^{-29}$	0.1661	$7.696 \cdot 10^{-11}$	$7.696 \cdot 10^{-11}$	$−1.442 \cdot 10^{-6}$

## 2.145 cjuQb1Re

interference square

	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-1.911 \cdot 10^{-12}$	$-1.911 \cdot 10^{-12}$	$-7.327 \cdot 10^{-7}$	$3.848 \cdot 10^{-11}$	$3.848 \cdot 10^{-11}$	$-1.455 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-3.725 \cdot 10^{-12}$	$-3.725 \cdot 10^{-12}$	$-7.249 \cdot 10^{-7}$	$7.696 \cdot 10^{-11}$	$7.696 \cdot 10^{-11}$	$-1.442 \cdot 10^{-6}$

## 2.146 cjuQb8Im

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$1.147 \cdot 10^{-29}$	$-3.722 \cdot 10^{-31}$	$1.032$	$8.551 \cdot 10^{-12}$	$8.551 \cdot 10^{-12}$	$-1.438 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$7.934 \cdot 10^{-32}$	$2.456 \cdot 10^{-29}$	$-308.5$	$1.71 \cdot 10^{-11}$	$1.71 \cdot 10^{-11}$	$-1.403 \cdot 10^{-6}$

## 2.147 cjuQb8Re

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-7.764 \cdot 10^{-30}$	$-4.842 \cdot 10^{-29}$	$-5.236$	$8.551 \cdot 10^{-12}$	$8.551 \cdot 10^{-12}$	$-1.45 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$5.471 \cdot 10^{-14}$	$5.471 \cdot 10^{-14}$	$-7.311 \cdot 10^{-7}$	$1.71 \cdot 10^{-11}$	$1.71 \cdot 10^{-11}$	$-1.403 \cdot 10^{-6}$

## 2.148 cjugd11Im

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-6.642 \cdot 10^{-31}$	$-6.471 \cdot 10^{-31}$	$0.02572$	$2.303 \cdot 10^{-15}$	$2.303 \cdot 10^{-15}$	$-6.08 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-6.502 \cdot 10^{-19}$	$-6.502 \cdot 10^{-19}$	$-2.922 \cdot 10^{-7}$	$3.45 \cdot 10^{-15}$	$3.45 \cdot 10^{-15}$	$-6.088 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$7.722 \cdot 10^{-33}$	$7.747 \cdot 10^{-33}$	$-0.003241$	$5.593 \cdot 10^{-20}$	$5.593 \cdot 10^{-20}$	$-2.664 \cdot 10^{-6}$

## 2.149 cjugd11Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$1.544 \cdot 10^{-15}$	$1.544 \cdot 10^{-15}$	$-3.238 \cdot 10^{-7}$	$4.014 \cdot 10^{-16}$	$4.014 \cdot 10^{-16}$	$-5.979 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-3.816 \cdot 10^{-15}$	$-3.816 \cdot 10^{-15}$	$-3.145 \cdot 10^{-7}$	$3.317 \cdot 10^{-15}$	$3.317 \cdot 10^{-15}$	$-6.03 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.724 \cdot 10^{-20}$	$-1.724 \cdot 10^{-20}$	$-1.334 \cdot 10^{-6}$	$7.641 \cdot 10^{-20}$	$7.641 \cdot 10^{-20}$	$-2.67 \cdot 10^{-6}$

## 2.150 cjugd1Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-1.401 \cdot 10^{-30}$	$-1.423 \cdot 10^{-30}$	$-0.01564$	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	$-5.747 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-3.182 \cdot 10^{-18}$	$-3.182 \cdot 10^{-18}$	$-3.142 \cdot 10^{-7}$	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	$-6.053 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$1.127 \cdot 10^{-33}$	$1.126 \cdot 10^{-33}$	$0.0006297$	$6.264 \cdot 10^{-20}$	$6.264 \cdot 10^{-20}$	$-2.666 \cdot 10^{-6}$

## 2.151 cjugd1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-3.864 \cdot 10^{-14}$	$-3.864 \cdot 10^{-14}$	$-2.847 \cdot 10^{-7}$	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	$-5.747 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-1.905 \cdot 10^{-14}$	$-1.905 \cdot 10^{-14}$	$-3.15 \cdot 10^{-7}$	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	$-6.053 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$1.096 \cdot 10^{-20}$	$1.096 \cdot 10^{-20}$	$-1.369 \cdot 10^{-6}$	$1.384 \cdot 10^{-19}$	$1.384 \cdot 10^{-19}$	$-2.673 \cdot 10^{-6}$

## 2.152 cjugd81Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$2.416 \cdot 10^{-30}$	$2.553 \cdot 10^{-30}$	$-0.05694$	$1.917 \cdot 10^{-15}$	$1.917 \cdot 10^{-15}$	$-6.259 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-6.885 \cdot 10^{-20}$	$-6.885 \cdot 10^{-20}$	$-2.905 \cdot 10^{-7}$	$2.724 \cdot 10^{-18}$	$2.724 \cdot 10^{-18}$	$-5.873 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-3.668 \cdot 10^{-35}$	$-4.169 \cdot 10^{-35}$	$-0.1365$	$1.541 \cdot 10^{-20}$	$1.541 \cdot 10^{-20}$	$-2.661 \cdot 10^{-6}$

### 2.153 cjugd81Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-1.757 \cdot 10^{-14}$	$-1.757 \cdot 10^{-14}$	$-2.846 \cdot 10^{-7}$	$3.943 \cdot 10^{-15}$	$3.943 \cdot 10^{-15}$	$-5.833 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$-4.237 \cdot 10^{-15}$	$-4.237 \cdot 10^{-15}$	$-2.832 \cdot 10^{-7}$	$5.066 \cdot 10^{-16}$	$5.066 \cdot 10^{-16}$	$-5.922 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$8.151 \cdot 10^{-20}$	$8.151 \cdot 10^{-20}$	$-1.325 \cdot 10^{-6}$	$1.133 \cdot 10^{-20}$	$1.133 \cdot 10^{-20}$	$-2.648 \cdot 10^{-6}$

### 2.154 cjugd8Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-7.929 \cdot 10^{-32}$	$-3.56 \cdot 10^{-32}$	0.551	$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	$-6.112 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$3.018 \cdot 10^{-34}$	$3.565 \cdot 10^{-32}$	-117.1	$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	$-6.105 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$8.878 \cdot 10^{-36}$	$3.032 \cdot 10^{-36}$	0.6585	$1.234 \cdot 10^{-20}$	$1.234 \cdot 10^{-20}$	$-2.675 \cdot 10^{-6}$

### 2.155 cjugd8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	$-4.076 \cdot 10^{-16}$	$-4.076 \cdot 10^{-16}$	$-2.944 \cdot 10^{-7}$	$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	$-5.877 \cdot 10^{-7}$
$u\bar{d} \rightarrow c\bar{s}$	$1.907 \cdot 10^{-40}$	$-2.73 \cdot 10^{-32}$	$1.432 \cdot 10^8$	$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	$-6.105 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$2.578 \cdot 10^{-20}$	$2.578 \cdot 10^{-20}$	$-1.319 \cdot 10^{-6}$	$1.174 \cdot 10^{-20}$	$1.174 \cdot 10^{-20}$	$-2.726 \cdot 10^{-6}$

### 2.156 cld11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+e^-$	0.001776	0.001776	0	0.04176	0.04176	0

## 2.157 cld33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.007914	0.007914	0	0.1837	0.1837	0

## 2.158 cle1111

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+ \nu_e \rightarrow e^+ \nu_e$	-0.2475	-0.2475	0	1	1	0
$e^+ e^- \rightarrow e^+ e^-$	-0.1445	-0.1445	0	3.337	3.337	0

## 2.159 cle1122

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+ e^- \rightarrow \mu^+ \mu^-$	0.03844	0.03844	0	0.3014	0.3014	0

## 2.160 cle1133

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+ \tau^- \rightarrow e^+ \tau^-$	-0.2161	-0.2161	0	1	1	0

## 2.161 cle1221

interference square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	$1.786 \cdot 10^{-9}$	$1.786 \cdot 10^{-9}$	0	1	1	0
$e^+e^- \rightarrow \mu^+\mu^-$	$3.565 \cdot 10^{-9}$	$3.565 \cdot 10^{-9}$	0	2	2	0

## 2.162 cle1331

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+\tau^- \rightarrow e^+\tau^-$	$-2.07 \cdot 10^{-8}$	$-2.07 \cdot 10^{-8}$	0	0.01469	0.01469	0

## 2.163 cle2211

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.1602	-0.1602	0	1	1	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.02107	0.02107	0	0.1651	0.1651	0

## 2.164 cle2233

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.06384	0.06384	0	0.5004	0.5004	0

## 2.165 cle2332

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$1.256 \cdot 10^{-5}$	$1.256 \cdot 10^{-5}$	0	2	2	0



## 2.166 cle3311

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$e^+\tau^- \rightarrow e^+\tau^-$	-0.1565	-0.1565	0	1	1	0

## 2.167 cle3322

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.08942	0.08942	0	0.7009	0.7009	0

## 2.168 cleQt1Im11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	$8.117 \cdot 10^{-11}$	$8.117 \cdot 10^{-11}$	0	0.08333	0.08333	0

## 2.169 cleQt1Im33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow \tau^+\tau^-$	$-9.486 \cdot 10^{-20}$	$-9.486 \cdot 10^{-20}$	0	0.1668	0.1668	0

## 2.170 cleQt1Re11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$4.824 \cdot 10^{-7}$	$4.824 \cdot 10^{-7}$	0	0.08333	0.08333	0
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### 2.171 cleQt1Re33

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow \tau^+ \tau^-$	0.00333	0.00333	0	0.1668	0.1668	0

### 2.172 cleQt3Im11

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$2.217 \cdot 10^{-10}$	$2.217 \cdot 10^{-10}$	0	0.6221	0.6221	0

### 2.173 cleQt3Im33

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-5.339 \cdot 10^{-19}$	$-5.339 \cdot 10^{-19}$	$8.816 \cdot 10^{-5}$	2.237	2.237	0

### 2.174 cleQt3Re11

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-5.711 \cdot 10^{-7}$	$-5.711 \cdot 10^{-7}$	0	0.1702	0.1702	0

### 2.175 cleQt3Re33

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.0003626	-0.0003626	0	0.1661	0.1661	0

### 2.176 clebQIm11

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-2.028 \cdot 10^{-12}$	$-2.028 \cdot 10^{-12}$	0	0.08333	0.08333	0

### 2.177 clebQIm22

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-9.393 \cdot 10^{-23}$	$-9.393 \cdot 10^{-23}$	0	0.1667	0.1667	0

### 2.178 clebQRe11

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-1.211 \cdot 10^{-8}$	$-1.211 \cdot 10^{-8}$	0	0.08333	0.08333	0

### 2.179 clebQRe22

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-4.892 \cdot 10^{-6}$	$-4.892 \cdot 10^{-6}$	0	0.1667	0.1667	0

## 2.180 cledjIm11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+e^-$	$-1.096 \cdot 10^{-32}$	$-5.478 \cdot 10^{-33}$	0.5	$1.199 \cdot 10^{-10}$	$1.199 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$

## 2.181 cledjIm22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$1.223 \cdot 10^{-17}$	$1.223 \cdot 10^{-17}$	$-5.723 \cdot 10^{-7}$	$5.996 \cdot 10^{-11}$	$5.996 \cdot 10^{-11}$	$-1.184 \cdot 10^{-6}$

## 2.182 cledjIm33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$8.148 \cdot 10^{-14}$	$8.148 \cdot 10^{-14}$	$3.068 \cdot 10^{-7}$	$2.378 \cdot 10^{-8}$	$2.378 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$

## 2.183 cledjRe11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+e^-$	$-7.12 \cdot 10^{-16}$	$-7.12 \cdot 10^{-16}$	$-5.899 \cdot 10^{-7}$	$1.199 \cdot 10^{-10}$	$1.199 \cdot 10^{-10}$	$-1.168 \cdot 10^{-6}$

## 2.184 cledjRe22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$$u\bar{d} \rightarrow \mu^+ \nu_\mu \quad -7.276 \cdot 10^{-14} \quad -7.276 \cdot 10^{-14} \quad -5.772 \cdot 10^{-7} \quad 5.996 \cdot 10^{-11} \quad 5.996 \cdot 10^{-11} \quad -1.168 \cdot 10^{-6}$$

## 2.185 cledjRe33

		interference				square		
	mod1	mod2	1 - mod2/mod1			mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-4.855 \cdot 10^{-10}$	$-4.855 \cdot 10^{-10}$	$3.296 \cdot 10^{-7}$			$2.378 \cdot 10^{-8}$	$2.378 \cdot 10^{-8}$	$6.308 \cdot 10^{-7}$

## 2.186 cleju1Im22

		interference				square		
	mod1	mod2	1 - mod2/mod1			mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-1.862 \cdot 10^{-25}$	$-7.377 \cdot 10^{-25}$	$-2.961$			$8.868 \cdot 10^{-6}$	$8.868 \cdot 10^{-6}$	$2.819 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-2.593 \cdot 10^{-18}$	$-2.593 \cdot 10^{-18}$	$-7.327 \cdot 10^{-7}$			$1.283 \cdot 10^{-11}$	$1.283 \cdot 10^{-11}$	$-1.481 \cdot 10^{-6}$

## 2.187 cleju1Im33

		interference				square		
	mod1	mod2	1 - mod2/mod1			mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-1.515 \cdot 10^{-11}$	$-1.515 \cdot 10^{-11}$	$1.32 \cdot 10^{-7}$			$4.434 \cdot 10^{-6}$	$4.434 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$

## 2.188 cleju1Re22

		interference				square		
	mod1	mod2	1 - mod2/mod1			mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	$1.09 \cdot 10^{-8}$	$1.09 \cdot 10^{-8}$	$1.835 \cdot 10^{-7}$			$8.868 \cdot 10^{-6}$	$8.868 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$1.552 \cdot 10^{-14}$	$1.552 \cdot 10^{-14}$	$-7.089 \cdot 10^{-7}$			$1.283 \cdot 10^{-11}$	$1.283 \cdot 10^{-11}$	$-1.481 \cdot 10^{-6}$

### 2.189 cleju1Re33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$9.032 \cdot 10^{-8}$	$9.032 \cdot 10^{-8}$	$1.439 \cdot 10^{-7}$	$4.434 \cdot 10^{-6}$	$4.434 \cdot 10^{-6}$	$2.706 \cdot 10^{-7}$

### 2.190 cleju3Im22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	$2.6 \cdot 10^{-24}$	$1.843 \cdot 10^{-24}$	$0.2912$	$2.862 \cdot 10^{-5}$	$2.862 \cdot 10^{-5}$	$2.795 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$7.424 \cdot 10^{-18}$	$7.424 \cdot 10^{-18}$	$-7.274 \cdot 10^{-7}$	$1.125 \cdot 10^{-10}$	$1.125 \cdot 10^{-10}$	$-1.422 \cdot 10^{-6}$

### 2.191 cleju3Im33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-1.894 \cdot 10^{-11}$	$-1.894 \cdot 10^{-11}$	$1.584 \cdot 10^{-7}$	$6.255 \cdot 10^{-6}$	$6.255 \cdot 10^{-6}$	$2.878 \cdot 10^{-7}$

### 2.192 cleju3Re22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-4.015 \cdot 10^{-9}$	$-4.015 \cdot 10^{-9}$	$1.494 \cdot 10^{-7}$	$1.957 \cdot 10^{-6}$	$1.957 \cdot 10^{-6}$	$3.065 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$5.736 \cdot 10^{-14}$	$5.736 \cdot 10^{-14}$	$-7.322 \cdot 10^{-7}$	$1.713 \cdot 10^{-10}$	$1.713 \cdot 10^{-10}$	$-1.401 \cdot 10^{-6}$

### 2.193 cleju3Re33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$1.131 \cdot 10^{-7}$	$1.131 \cdot 10^{-7}$	$1.769 \cdot 10^{-7}$	$6.255 \cdot 10^{-6}$	$6.255 \cdot 10^{-6}$	$2.878 \cdot 10^{-7}$

## 2.194 clj111

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+ e^-$	0.006645	0.006645	0	0.03499	0.03499	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	0.0005219	0.0005219	0	0.00274	0.00274	0

## 2.195 clj122

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	-0.02419	-0.02419	0	0.1041	0.1041	0

## 2.196 clj133

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.05499	-0.05499	0	0.2355	0.2355	0

## 2.197 clj311

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow e^+ e^-$	0.03527	0.03527	0	0.1857	0.1857	0

$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	0.05443	0.05443	0	0.2858	0.2858	0
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## 2.198 clj322

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$c\bar{c} \rightarrow \mu^+ \mu^-$	0.02419	0.02419	0	0.1041	0.1041	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	0.0005259	0.0005259	0	0.002485	0.002485	0

## 2.199 clj333

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	0.1466	0.1466	0	0.693	0.693	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.00462	0.00462	0	0.01978	0.01978	0

## 2.200 cll1111

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$e^+ \nu_e \rightarrow e^+ \nu_e$	0.3394	0.3394	0	0.9622	0.9622	0
$e^+ e^- \rightarrow e^+ e^-$	-0.007923	-0.007923	0	0.532	0.532	0

## 2.201 cll1122

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	0.08373	0.08373	0	0.3027	0.3027	0



$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0.05553	0.05553	0	0.2093	0.2093	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.2349	0.2349	0	0.8543	0.8543	0

## 2.202 cll1133

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$e^+\tau^- \rightarrow e^+\tau^-$	-0.8724	-0.8724	0	0.6411	0.6411	0

## 2.203 cll1221

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow HH$	0.01254	0.01254	0	0.0001901	0.0001901	0
$HH \rightarrow HHH$	$1.816 \cdot 10^{-8}$	$1.816 \cdot 10^{-8}$	0	$4.129 \cdot 10^{-10}$	$4.129 \cdot 10^{-10}$	0
$HH \rightarrow H\tau^+\tau^-$	$4.977 \cdot 10^{-10}$	$4.977 \cdot 10^{-10}$	0	$1.131 \cdot 10^{-11}$	$1.131 \cdot 10^{-11}$	0
$HH \rightarrow Hb\bar{b}$	$3.01 \cdot 10^{-9}$	$3.01 \cdot 10^{-9}$	0	$6.844 \cdot 10^{-11}$	$6.844 \cdot 10^{-11}$	0
$HH \rightarrow Hs\bar{s}$	$1.283 \cdot 10^{-13}$	$1.283 \cdot 10^{-13}$	0	$2.916 \cdot 10^{-15}$	$2.916 \cdot 10^{-15}$	0
$HH \rightarrow Ht\bar{t}$	$2.756 \cdot 10^{-6}$	$2.756 \cdot 10^{-6}$	0	$6.265 \cdot 10^{-8}$	$6.265 \cdot 10^{-8}$	0
$HH \rightarrow Hu\bar{u}$	$6.619 \cdot 10^{-17}$	$6.619 \cdot 10^{-17}$	0	$1.505 \cdot 10^{-18}$	$1.505 \cdot 10^{-18}$	0
$HH \rightarrow Hzz$	$9.93 \cdot 10^{-7}$	$9.93 \cdot 10^{-7}$	0	$2.257 \cdot 10^{-8}$	$2.257 \cdot 10^{-8}$	0
$HH \rightarrow W^+W^-$	-0.04486	-0.04486	0	0.04717	0.04717	0
$HH \rightarrow W^+W^-\gamma$	$-3.747 \cdot 10^{-7}$	$-3.747 \cdot 10^{-7}$	0	$2.325 \cdot 10^{-7}$	$2.325 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	$-1.822 \cdot 10^{-7}$	$-1.822 \cdot 10^{-7}$	0	$1.467 \cdot 10^{-7}$	$1.467 \cdot 10^{-7}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$2.277 \cdot 10^{-9}$	$2.277 \cdot 10^{-9}$	0	$1.255 \cdot 10^{-10}$	$1.255 \cdot 10^{-10}$	0
$HH \rightarrow W^-u\bar{d}$	$1.329 \cdot 10^{-6}$	$1.329 \cdot 10^{-6}$	0	$8.049 \cdot 10^{-8}$	$8.049 \cdot 10^{-8}$	0
$HH \rightarrow z\bar{b}b$	$1.892 \cdot 10^{-8}$	$1.892 \cdot 10^{-8}$	0	$5.094 \cdot 10^{-10}$	$5.094 \cdot 10^{-10}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$2.143 \cdot 10^{-8}$	$2.143 \cdot 10^{-8}$	0	$4.872 \cdot 10^{-10}$	$4.872 \cdot 10^{-10}$	0
$HH \rightarrow zc\bar{c}$	$2.876 \cdot 10^{-8}$	$2.876 \cdot 10^{-8}$	0	$9.324 \cdot 10^{-10}$	$9.324 \cdot 10^{-10}$	0

$HH \rightarrow zd\bar{d}$	$3.071 \cdot 10^{-8}$	$3.071 \cdot 10^{-8}$	0	$8.206 \cdot 10^{-10}$	$8.206 \cdot 10^{-10}$	0
$HH \rightarrow ze^+e^-$	$5.752 \cdot 10^{-9}$	$5.752 \cdot 10^{-9}$	0	$2.367 \cdot 10^{-10}$	$2.367 \cdot 10^{-10}$	0
$HH \rightarrow zt\bar{t}$	$3.076 \cdot 10^{-6}$	$3.076 \cdot 10^{-6}$	0	$7.613 \cdot 10^{-8}$	$7.613 \cdot 10^{-8}$	0
$HH \rightarrow zz$	0.004649	0.004649	0	$7.046 \cdot 10^{-5}$	$7.046 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$7.19 \cdot 10^{-8}$	$7.19 \cdot 10^{-8}$	0	$1.89 \cdot 10^{-9}$	$1.89 \cdot 10^{-9}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$7.996 \cdot 10^{-10}$	$7.996 \cdot 10^{-10}$	0	$2.009 \cdot 10^{-11}$	$2.009 \cdot 10^{-11}$	0
$HW^+ \rightarrow u\bar{d}$	0.00141	0.00141	0	$3.542 \cdot 10^{-5}$	$3.542 \cdot 10^{-5}$	0
$HW^- \rightarrow t\bar{b}$	0.04643	0.04643	0	0.003957	0.003957	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$2.064 \cdot 10^{-9}$	$2.064 \cdot 10^{-9}$	0	$5.186 \cdot 10^{-11}$	$5.186 \cdot 10^{-11}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	0.0007563	0.0007563	0	$1.9 \cdot 10^{-5}$	$1.9 \cdot 10^{-5}$	0
$H\gamma \rightarrow b\bar{b}$	$1.447 \cdot 10^{-5}$	$1.447 \cdot 10^{-5}$	0	$1.097 \cdot 10^{-7}$	$1.097 \cdot 10^{-7}$	0
$H\gamma \rightarrow c\bar{c}$	$2.036 \cdot 10^{-6}$	$2.036 \cdot 10^{-6}$	0	$1.543 \cdot 10^{-8}$	$1.543 \cdot 10^{-8}$	0
$H\gamma \rightarrow d\bar{d}$	$2.874 \cdot 10^{-12}$	$2.874 \cdot 10^{-12}$	0	$2.178 \cdot 10^{-14}$	$2.178 \cdot 10^{-14}$	0
$H\gamma \rightarrow e^+e^-$	$2.484 \cdot 10^{-12}$	$2.484 \cdot 10^{-12}$	0	$1.882 \cdot 10^{-14}$	$1.882 \cdot 10^{-14}$	0
$H\gamma \rightarrow t\bar{t}$	0.01237	0.01237	0	$9.373 \cdot 10^{-5}$	$9.373 \cdot 10^{-5}$	0
$HZ \rightarrow \mu^+\mu^-$	$6.414 \cdot 10^{-5}$	$6.414 \cdot 10^{-5}$	0	$2.657 \cdot 10^{-6}$	$2.657 \cdot 10^{-6}$	0
$HZ \rightarrow \nu_\tau\bar{\nu}_\tau$	0.0003582	0.0003582	0	$5.429 \cdot 10^{-6}$	$5.429 \cdot 10^{-6}$	0
$HZ \rightarrow b\bar{b}$	0.0007939	0.0007939	0	$1.555 \cdot 10^{-5}$	$1.555 \cdot 10^{-5}$	0
$HZ \rightarrow s\bar{s}$	0.0002827	0.0002827	0	$5.509 \cdot 10^{-6}$	$5.509 \cdot 10^{-6}$	0
$HZ \rightarrow t\bar{t}$	0.5904	0.5904	0	0.01001	0.01001	0
$HZ \rightarrow u\bar{u}$	0.0008653	0.0008653	0	$2.322 \cdot 10^{-5}$	$2.322 \cdot 10^{-5}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0	$6.081 \cdot 10^{-8}$	$6.081 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$6.021 \cdot 10^{-7}$	$6.021 \cdot 10^{-7}$	0	$2.229 \cdot 10^{-8}$	$2.229 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$4.181 \cdot 10^{-8}$	$4.181 \cdot 10^{-8}$	0	$1.828 \cdot 10^{-9}$	$1.828 \cdot 10^{-9}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$1.757 \cdot 10^{-6}$	$1.757 \cdot 10^{-6}$	0	$9.89 \cdot 10^{-8}$	$9.89 \cdot 10^{-8}$	0
$W^+W^- \rightarrow W^+W^-$	0.975	0.975	0	0.03631	0.03631	0
$\bar{b}t \rightarrow \bar{d}u$	0.002623	0.002623	0	$5.719 \cdot 10^{-5}$	$5.719 \cdot 10^{-5}$	0
$\gamma W^+ \rightarrow zW^+$	0.008241	0.008241	0	0.0001172	0.0001172	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$6.03 \cdot 10^{-5}$	$6.03 \cdot 10^{-5}$	0	$4.27 \cdot 10^{-6}$	$4.27 \cdot 10^{-6}$	0

$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	$4.42 \cdot 10^{-6}$	$4.42 \cdot 10^{-6}$	0	$6.699 \cdot 10^{-8}$	$6.699 \cdot 10^{-8}$	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	0.2076	0.2076	0	0.7535	0.7535	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	$-2.961 \cdot 10^{-6}$	$-2.961 \cdot 10^{-6}$	0	$1.38 \cdot 10^{-7}$	$1.38 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	0.0002886	0.0002886	0	$5.535 \cdot 10^{-6}$	$5.535 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	-0.003804	-0.003804	0	$1.328 \cdot 10^{-5}$	$1.328 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow d\bar{d}$	$8.972 \cdot 10^{-5}$	$8.972 \cdot 10^{-5}$	0	$1.925 \cdot 10^{-6}$	$1.925 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.004066	-0.004066	0	0.000498	0.000498	0
$b\bar{b} \rightarrow u\bar{u}$	$8.909 \cdot 10^{-5}$	$8.909 \cdot 10^{-5}$	0	$2.193 \cdot 10^{-6}$	$2.193 \cdot 10^{-6}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	0.0002279	0.0002279	0	$4.969 \cdot 10^{-6}$	$4.969 \cdot 10^{-6}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-2.976 \cdot 10^{-7}$	$-2.976 \cdot 10^{-7}$	0	$3.975 \cdot 10^{-7}$	$3.975 \cdot 10^{-7}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	0.0004372	0.0004372	0	$9.531 \cdot 10^{-6}$	$9.531 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow c\bar{c}$	$3.832 \cdot 10^{-5}$	$3.832 \cdot 10^{-5}$	0	$1.03 \cdot 10^{-6}$	$1.03 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+ e^-$	$1.666 \cdot 10^{-5}$	$1.666 \cdot 10^{-5}$	0	$5.945 \cdot 10^{-7}$	$5.945 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow s\bar{s}$	$3.104 \cdot 10^{-5}$	$3.104 \cdot 10^{-5}$	0	$7.043 \cdot 10^{-7}$	$7.043 \cdot 10^{-7}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0.0006348	0.0006348	0	$4.447 \cdot 10^{-5}$	$4.447 \cdot 10^{-5}$	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	0.001344	0.001344	0	0.003204	0.003204	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	$4.744 \cdot 10^{-5}$	$4.744 \cdot 10^{-5}$	0	$5.918 \cdot 10^{-6}$	$5.918 \cdot 10^{-6}$	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	-0.0002769	-0.0002769	0	$2.508 \cdot 10^{-6}$	$2.508 \cdot 10^{-6}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	0.03309	0.03309	0	0.1214	0.1214	0
$e^+ e^- \rightarrow e^+ e^-$	-0.0005898	-0.0005898	0	$4.752 \cdot 10^{-6}$	$4.752 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.0001153	0.0001153	0	$2.23 \cdot 10^{-6}$	$2.23 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	$-7.596 \cdot 10^{-5}$	$-7.596 \cdot 10^{-5}$	0	$2.279 \cdot 10^{-7}$	$2.279 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	$1.485 \cdot 10^{-5}$	$1.485 \cdot 10^{-5}$	0	$7.802 \cdot 10^{-7}$	$7.802 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	0.0001326	0.0001326	0	$3.338 \cdot 10^{-6}$	$3.338 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	0.0007329	0.0007329	0	$1.72 \cdot 10^{-5}$	$1.72 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	0.0006444	0.0006444	0	$1.53 \cdot 10^{-5}$	$1.53 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	0.0005554	0.0005554	0	$1.321 \cdot 10^{-5}$	$1.321 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	-0.02156	-0.02156	0	0.0009052	0.0009052	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	0.0007436	0.0007436	0	$1.621 \cdot 10^{-5}$	$1.621 \cdot 10^{-5}$	0

$u\bar{d} \rightarrow c\bar{s}$	0.002524	0.002524	0	$5.502 \cdot 10^{-5}$	$5.502 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow u\bar{d}$	-0.001137	-0.001137	0	$1.899 \cdot 10^{-5}$	$1.899 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$5.077 \cdot 10^{-5}$	$5.077 \cdot 10^{-5}$	0	$1.439 \cdot 10^{-6}$	$1.439 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow c\bar{c}$	0.0004976	0.0004976	0	$1.175 \cdot 10^{-5}$	$1.175 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	-0.002754	-0.002754	0	$1.123 \cdot 10^{-5}$	$1.123 \cdot 10^{-5}$	0
$zz \rightarrow W^+W^-$	3.132	3.132	0	0.07123	0.07123	0
$zz \rightarrow zz$	0.004602	0.004602	0	$6.974 \cdot 10^{-5}$	$6.974 \cdot 10^{-5}$	0

## 2.204 cll1331

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$e^+\tau^- \rightarrow e^+\tau^-$	-0.07109	-0.07109	0	0.1571	0.1571	0

## 2.205 cll2233

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.02255	0.02255	0	0.082	0.082	0

## 2.206 cll2332

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.1557	0.1557	0	0.5663	0.5663	0

## 2.207 cll3333

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-16.72	-16.72	0	14.51	14.51	0

## 2.208 clu11

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$-6.068 \cdot 10^{-6}$	$-6.068 \cdot 10^{-6}$	0	$7.044 \cdot 10^{-5}$	$7.044 \cdot 10^{-5}$	0

## 2.209 clu22

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+ \mu^-$	-0.01713	-0.01713	0	0.2015	0.2015	0

## 2.210 ctBIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow zt\bar{t}$	$3.288 \cdot 10^{-7}$	$3.288 \cdot 10^{-7}$	0	$7.587 \cdot 10^{-6}$	$7.587 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$1.198 \cdot 10^{-6}$	$1.198 \cdot 10^{-6}$	0	$1.535 \cdot 10^{-6}$	$1.535 \cdot 10^{-6}$	0
$H\gamma \rightarrow t\bar{t}$	$6.885 \cdot 10^{-18}$	$6.885 \cdot 10^{-18}$	0	2.166	2.166	0
$H z \rightarrow t\bar{t}$	0.0002589	0.0002589	0	0.5738	0.5738	0
$W^+ W^- \rightarrow H t\bar{t}$	$8.569 \cdot 10^{-8}$	$8.569 \cdot 10^{-8}$	0	$2.079 \cdot 10^{-8}$	$2.079 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow t\bar{t}$	$1.906 \cdot 10^{-19}$	$1.334 \cdot 10^{-19}$	0.3002	0.000597	0.000597	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	$7.305 \cdot 10^{-19}$	$7.305 \cdot 10^{-19}$	0	0.0005339	0.0005339	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-1.171 \cdot 10^{-18}$	$-1.171 \cdot 10^{-18}$	0	0.002592	0.002592	0

$t\bar{t} \rightarrow c\bar{c}$	$1.531 \cdot 10^{-18}$	$1.531 \cdot 10^{-18}$	$-2.685 \cdot 10^{-5}$	0.002932	0.002932	0
$t\bar{t} \rightarrow d\bar{d}$	$-1.459 \cdot 10^{-19}$	$-1.458 \cdot 10^{-19}$	0.0003226	0.0003946	0.0003946	0
$t\bar{t} \rightarrow s\bar{s}$	$-7.194 \cdot 10^{-21}$	$-7.194 \cdot 10^{-21}$	0	0.0001837	0.0001837	0
$t\bar{t} \rightarrow t\bar{t}$	$-5.346 \cdot 10^{-17}$	$-5.186 \cdot 10^{-17}$	0.03008	0.03725	0.03725	0

## 2.211 ctBRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow zt\bar{t}$	$-1.287 \cdot 10^{-6}$	$-1.287 \cdot 10^{-6}$	0	$1.709 \cdot 10^{-5}$	$1.709 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-8.85 \cdot 10^{-7}$	$-8.85 \cdot 10^{-7}$	0	$3.255 \cdot 10^{-7}$	$3.255 \cdot 10^{-7}$	0
$H\gamma \rightarrow t\bar{t}$	0.2605	0.2605	0	2.778	2.778	0
$HZ \rightarrow t\bar{t}$	-0.01796	-0.01796	0	0.8901	0.8901	0
$W^+W^- \rightarrow Ht\bar{t}$	$1.065 \cdot 10^{-7}$	$1.065 \cdot 10^{-7}$	0	$3.409 \cdot 10^{-8}$	$3.409 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow t\bar{t}$	0.003611	0.003611	0	0.00122	0.00122	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0003499	-0.0003499	0	0.0004182	0.0004182	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.002994	-0.002994	0	0.003732	0.003732	0
$t\bar{t} \rightarrow c\bar{c}$	-0.002745	-0.002745	0	0.004271	0.004271	0
$t\bar{t} \rightarrow d\bar{d}$	0.0002113	0.0002113	0	0.001267	0.001267	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0001335	-0.0001335	0	0.001023	0.001023	0
$t\bar{t} \rightarrow t\bar{t}$	0.3038	0.3038	0	0.1475	0.1475	0

## 2.212 ctGIm

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	$-5.027 \cdot 10^{-20}$	$-5.027 \cdot 10^{-20}$	0	0.01189	0.01189	0
$gg \rightarrow t\bar{t}$	$5.468 \cdot 10^{-18}$	$5.468 \cdot 10^{-18}$	0	0.09942	0.09942	0
$t\bar{t} \rightarrow c\bar{c}$	$-1.943 \cdot 10^{-23}$	$-2.118 \cdot 10^{-23}$	-0.08986	0.01167	0.01167	0

$t\bar{t} \rightarrow d\bar{d}$	$5.147 \cdot 10^{-24}$	$5.147 \cdot 10^{-24}$	0	0.03317	0.03317	0
$t\bar{t} \rightarrow s\bar{s}$	$8.187 \cdot 10^{-25}$	$8.187 \cdot 10^{-25}$	0	0.03178	0.03178	0
$t\bar{t} \rightarrow t\bar{t}$	$8.286 \cdot 10^{-17}$	$8.883 \cdot 10^{-17}$	$-0.07201$	0.6186	0.6186	0

## 2.213 ctGRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	-0.08544	-0.08544	0	0.04374	0.04374	0
$gg \rightarrow t\bar{t}$	-0.5927	-0.5927	0	0.118	0.118	0
$t\bar{t} \rightarrow c\bar{c}$	-0.1986	-0.1986	0	0.0414	0.0414	0
$t\bar{t} \rightarrow d\bar{d}$	-0.1986	-0.1986	0	0.02582	0.02582	0
$t\bar{t} \rightarrow s\bar{s}$	-0.1986	-0.1986	0	0.0268	0.0268	0
$t\bar{t} \rightarrow t\bar{t}$	-0.1372	-0.1372	0	0.09184	0.09184	0

## 2.214 ctHIm

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Ht\bar{t}$	$-1.475 \cdot 10^{-5}$	$-1.475 \cdot 10^{-5}$	0	$3.267 \cdot 10^{-5}$	$3.267 \cdot 10^{-5}$	0
$HH \rightarrow W^+ \bar{t}b$	$1.785 \cdot 10^{-5}$	$1.785 \cdot 10^{-5}$	0	$1.511 \cdot 10^{-5}$	$1.511 \cdot 10^{-5}$	0
$HH \rightarrow zt\bar{t}$	$4.137 \cdot 10^{-7}$	$4.137 \cdot 10^{-7}$	0	$8.075 \cdot 10^{-7}$	$8.075 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-1.136 \cdot 10^{-7}$	$-1.136 \cdot 10^{-7}$	0	$6.553 \cdot 10^{-9}$	$6.553 \cdot 10^{-9}$	0
$HW^- \rightarrow \bar{t}b$	-0.0008855	-0.0008855	0	0.0585	0.0585	0
$H\gamma \rightarrow t\bar{t}$	$3.583 \cdot 10^{-18}$	$3.583 \cdot 10^{-18}$	0	0.00239	0.00239	0
$H z \rightarrow t\bar{t}$	-0.0001018	-0.0001018	0	0.06868	0.06868	0
$W^+ W^- \rightarrow Hb\bar{b}$	$-4.345 \cdot 10^{-8}$	$-4.345 \cdot 10^{-8}$	0	$2.262 \cdot 10^{-9}$	$2.262 \cdot 10^{-9}$	0
$W^+ W^- \rightarrow Ht\bar{t}$	$5.747 \cdot 10^{-7}$	$5.747 \cdot 10^{-7}$	0	$6.392 \cdot 10^{-7}$	$6.392 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow t\bar{t}$	$-2.904 \cdot 10^{-22}$	$-2.904 \cdot 10^{-22}$	0	$5.466 \cdot 10^{-7}$	$5.466 \cdot 10^{-7}$	0

$t\bar{t} \rightarrow \tau^+ \tau^-$	$6.707 \cdot 10^{-24}$	$6.707 \cdot 10^{-24}$	0	$3.492 \cdot 10^{-8}$	$3.492 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-1.747 \cdot 10^{-24}$	$4.623 \cdot 10^{-23}$	27.47	$5.351 \cdot 10^{-8}$	$5.351 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow d\bar{d}$	$1.972 \cdot 10^{-27}$	$1.972 \cdot 10^{-27}$	0	$7.236 \cdot 10^{-13}$	$7.236 \cdot 10^{-13}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-2.969 \cdot 10^{-25}$	$-2.969 \cdot 10^{-25}$	0	$2.87 \cdot 10^{-10}$	$2.87 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow t\bar{t}$	$-1.083 \cdot 10^{-18}$	$-1.106 \cdot 10^{-18}$	-0.02085	0.004922	0.004922	0

## 2.215 ctHRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Ht\bar{t}$	$3.699 \cdot 10^{-5}$	$3.699 \cdot 10^{-5}$	0	$1.875 \cdot 10^{-5}$	$1.875 \cdot 10^{-5}$	0
$HH \rightarrow W^+ \bar{t}b$	$1.976 \cdot 10^{-5}$	$1.976 \cdot 10^{-5}$	0	$1.827 \cdot 10^{-5}$	$1.827 \cdot 10^{-5}$	0
$HH \rightarrow zt\bar{t}$	$-1.036 \cdot 10^{-5}$	$-1.036 \cdot 10^{-5}$	0	$7.303 \cdot 10^{-6}$	$7.303 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$4.504 \cdot 10^{-7}$	$4.504 \cdot 10^{-7}$	0	$6.941 \cdot 10^{-8}$	$6.941 \cdot 10^{-8}$	0
$HW^- \rightarrow \bar{t}b$	0.002998	0.002998	0	0.04921	0.04921	0
$H\gamma \rightarrow t\bar{t}$	-0.0907	-0.0907	0	0.002771	0.002771	0
$H z \rightarrow t\bar{t}$	-0.02136	-0.02136	0	0.06553	0.06553	0
$W^+ W^- \rightarrow Hb\bar{b}$	$7.609 \cdot 10^{-7}$	$7.609 \cdot 10^{-7}$	0	$3.404 \cdot 10^{-8}$	$3.404 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow Ht\bar{t}$	$2.891 \cdot 10^{-8}$	$2.891 \cdot 10^{-8}$	0	$1.455 \cdot 10^{-7}$	$1.455 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow t\bar{t}$	$-9.991 \cdot 10^{-6}$	$-9.991 \cdot 10^{-6}$	0	$4.813 \cdot 10^{-7}$	$4.813 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-1 \cdot 10^{-6}$	$-1 \cdot 10^{-6}$	0	$3.099 \cdot 10^{-8}$	$3.099 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-1.547 \cdot 10^{-6}$	$-1.547 \cdot 10^{-6}$	0	$4.749 \cdot 10^{-8}$	$4.749 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-2.088 \cdot 10^{-11}$	$-2.088 \cdot 10^{-11}$	0	$6.421 \cdot 10^{-13}$	$6.421 \cdot 10^{-13}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-8.4 \cdot 10^{-9}$	$-8.4 \cdot 10^{-9}$	0	$2.547 \cdot 10^{-10}$	$2.547 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.2077	0.2077	0	0.009518	0.009518	0

## 2.216 ctWIm

interference

square



	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$-1.061 \cdot 10^{-5}$	$-1.061 \cdot 10^{-5}$	0		$2.824 \cdot 10^{-5}$	$2.824 \cdot 10^{-5}$	0
$HH \rightarrow z t \bar{t}$	$-1.136 \cdot 10^{-6}$	$-1.136 \cdot 10^{-6}$	0		$9.007 \cdot 10^{-6}$	$9.007 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$3.424 \cdot 10^{-7}$	$3.424 \cdot 10^{-7}$	0		$2.56 \cdot 10^{-6}$	$2.56 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	0.0002073	0.0002073	0		2.125	2.125	0
$H\gamma \rightarrow t \bar{t}$	$3.743 \cdot 10^{-17}$	$3.743 \cdot 10^{-17}$	0		0.6664	0.6664	0
$H z \rightarrow t \bar{t}$	$-7.636 \cdot 10^{-6}$	$-7.636 \cdot 10^{-6}$	0		2.891	2.891	0
$W^+ W^- \rightarrow H b \bar{b}$	$5.805 \cdot 10^{-6}$	$5.805 \cdot 10^{-6}$	0		$5.631 \cdot 10^{-6}$	$5.631 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$1.958 \cdot 10^{-7}$	$1.958 \cdot 10^{-7}$	0		$2.37 \cdot 10^{-5}$	$2.37 \cdot 10^{-5}$	0
$\bar{b}t \rightarrow \bar{d}u$	$3.964 \cdot 10^{-18}$	$3.964 \cdot 10^{-18}$	0		0.008324	0.008324	0
$b\bar{b} \rightarrow t \bar{t}$	$-1.556 \cdot 10^{-16}$	$-1.556 \cdot 10^{-16}$	0		0.09368	0.09368	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-9.261 \cdot 10^{-19}$	$-9.261 \cdot 10^{-19}$	0		0.004144	0.004144	0
$t \bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	$-4.392 \cdot 10^{-20}$	$-4.392 \cdot 10^{-20}$	0		0.001345	0.001345	0
$t \bar{t} \rightarrow \tau^+ \tau^-$	$-1.579 \cdot 10^{-18}$	$-1.579 \cdot 10^{-18}$	0		0.00118	0.00118	0
$t \bar{t} \rightarrow c \bar{c}$	$5.511 \cdot 10^{-19}$	$5.512 \cdot 10^{-19}$	-0.0001494		0.003606	0.003606	0
$t \bar{t} \rightarrow d \bar{d}$	$-2.169 \cdot 10^{-18}$	$-2.169 \cdot 10^{-18}$	0		0.002943	0.002943	0
$t \bar{t} \rightarrow s \bar{s}$	$-5.879 \cdot 10^{-19}$	$-5.879 \cdot 10^{-19}$	0		0.001322	0.001322	0
$t \bar{t} \rightarrow t \bar{t}$	$3.097 \cdot 10^{-16}$	$3.097 \cdot 10^{-16}$	$-9.72 \cdot 10^{-6}$		0.5925	0.5925	0

## 2.217 ctWRe

	interference				square		
	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	-0.01359	-0.01359	0		0.0009886	0.0009886	0
$HH \rightarrow z t \bar{t}$	$4.068 \cdot 10^{-6}$	$4.068 \cdot 10^{-6}$	0		$5.355 \cdot 10^{-5}$	$5.355 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-2.125 \cdot 10^{-7}$	$-2.125 \cdot 10^{-7}$	0		$1.525 \cdot 10^{-6}$	$1.525 \cdot 10^{-6}$	0
$HW^- \rightarrow \bar{t}b$	0.2427	0.2427	0		2.111	2.111	0
$H\gamma \rightarrow t \bar{t}$	0.3636	0.3636	0		0.3933	0.3933	0
$H z \rightarrow t \bar{t}$	0.3341	0.3341	0		0.6614	0.6614	0

$W^+W^- \rightarrow Hb\bar{b}$	$-6.412 \cdot 10^{-7}$	$-6.412 \cdot 10^{-7}$	0	$4.705 \cdot 10^{-6}$	$4.705 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$1.207 \cdot 10^{-5}$	$1.207 \cdot 10^{-5}$	0	$2.678 \cdot 10^{-5}$	$2.678 \cdot 10^{-5}$	0
$\bar{b}t \rightarrow \bar{d}u$	-0.01604	-0.01604	0	0.003155	0.003155	0
$b\bar{b} \rightarrow t\bar{t}$	0.03302	0.03302	0	0.1181	0.1181	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	-0.003966	-0.003966	0	0.003762	0.003762	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.002329	-0.002329	0	0.0008153	0.0008153	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.002976	-0.002976	0	0.0008593	0.0008593	0
$t\bar{t} \rightarrow c\bar{c}$	-0.00356	-0.00356	0	0.006686	0.006686	0
$t\bar{t} \rightarrow d\bar{d}$	-0.0001972	-0.0001972	0	0.004181	0.004181	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0002754	-0.0002754	0	0.00434	0.00434	0
$t\bar{t} \rightarrow t\bar{t}$	0.02067	0.02067	0	0.01461	0.01461	0

## 2.218 ctb1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	-0.02512	-0.02512	0	0.433	0.433	0

## 2.219 ctb8

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	0.1701	0.1701	0	0.05079	0.05079	0

## 2.220 ctd1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$

$t\bar{t} \rightarrow d\bar{d}$	-0.05004	-0.05004	0	0.8696	0.8696	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0004685	-0.0004685	0	0.0008918	0.0008918	0

## 2.221 ctd8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow d\bar{d}$	0.5922	0.5922	0	0.1932	0.1932	0
$t\bar{t} \rightarrow s\bar{s}$	0.02024	0.02024	0	0.0001982	0.0001982	0

## 2.222 cte33

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.05045	-0.05045	0	0.2923	0.2923	0

## 2.223 ctj1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow c\bar{c}$	0.009761	0.009761	0	0.1157	0.1157	0
$t\bar{t} \rightarrow d\bar{d}$	0.01135	0.01135	0	0.6003	0.6003	0
$t\bar{t} \rightarrow s\bar{s}$	-0.005701	-0.005701	0	0.01381	0.01381	0

## 2.224 ctj8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$t\bar{t} \rightarrow c\bar{c}$	0.2424	0.2424	0	0.07517	0.07517	0
$t\bar{t} \rightarrow d\bar{d}$	0.1505	0.1505	0	0.04415	0.04415	0
$t\bar{t} \rightarrow s\bar{s}$	0.4013	0.4013	0	0.1288	0.1288	0

## 2.225 ct122

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.02518	-0.02518	0	0.3143	0.3143	0

## 2.226 ct133

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.009105	-0.009105	0	0.07985	0.07985	0

## 2.227 ctt

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow t\bar{t}$	-46.65	-46.65	0	31.06	31.06	0

## 2.228 ctu1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow c\bar{c}$	0.009463	0.009463	0	0.07562	0.07562	0

## 2.229 ctu8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$t\bar{t} \rightarrow c\bar{c}$	0.3329	0.3329	0	0.1057	0.1057	0

## 2.230 cuBIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow zc\bar{c}$	$2.048 \cdot 10^{-11}$	$2.048 \cdot 10^{-11}$	$1.465 \cdot 10^{-7}$	$3.876 \cdot 10^{-11}$	$3.876 \cdot 10^{-11}$	$2.838 \cdot 10^{-7}$
$HW^+ \rightarrow \gamma u\bar{d}$	$1.616 \cdot 10^{-16}$	$1.616 \cdot 10^{-16}$	$-6.808 \cdot 10^{-7}$	$2.936 \cdot 10^{-16}$	$2.936 \cdot 10^{-16}$	$-1.465 \cdot 10^{-6}$
$H\gamma \rightarrow c\bar{c}$	$3.222 \cdot 10^{-21}$	$3.222 \cdot 10^{-21}$	$-5.198 \cdot 10^{-5}$	0.0001006	0.0001006	$2.982 \cdot 10^{-7}$
$H z \rightarrow u\bar{u}$	$-3.605 \cdot 10^{-15}$	$-3.605 \cdot 10^{-15}$	$-7.212 \cdot 10^{-7}$	$7.273 \cdot 10^{-11}$	$7.273 \cdot 10^{-11}$	$-1.457 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$5.567 \cdot 10^{-13}$	$5.567 \cdot 10^{-13}$	$1.437 \cdot 10^{-7}$	$3.697 \cdot 10^{-13}$	$3.697 \cdot 10^{-13}$	$2.705 \cdot 10^{-7}$
$b\bar{b} \rightarrow u\bar{u}$	$-5.275 \cdot 10^{-30}$	$2.934 \cdot 10^{-30}$	1.556	$1.648 \cdot 10^{-13}$	$1.648 \cdot 10^{-13}$	$-1.456 \cdot 10^{-6}$
$c\bar{c} \rightarrow \mu^+\mu^-$	$1.712 \cdot 10^{-22}$	$1.712 \cdot 10^{-22}$	0	$7.116 \cdot 10^{-8}$	$7.116 \cdot 10^{-8}$	$2.811 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$9.298 \cdot 10^{-25}$	$-4.323 \cdot 10^{-25}$	1.465	$5.126 \cdot 10^{-8}$	$5.126 \cdot 10^{-8}$	$2.926 \cdot 10^{-7}$
$t\bar{t} \rightarrow c\bar{c}$	$-8.669 \cdot 10^{-22}$	$-8.537 \cdot 10^{-22}$	0.01512	$1.107 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$2.709 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$6.334 \cdot 10^{-27}$	$6.34 \cdot 10^{-27}$	-0.001057	$4.489 \cdot 10^{-14}$	$4.489 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	$-5.429 \cdot 10^{-29}$	$-5.429 \cdot 10^{-29}$	$1.262 \cdot 10^{-5}$	$9.532 \cdot 10^{-14}$	$9.532 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$3.411 \cdot 10^{-24}$	$3.263 \cdot 10^{-24}$	0.04336	$2.94 \cdot 10^{-8}$	$2.94 \cdot 10^{-8}$	$3.062 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$-1.349 \cdot 10^{-27}$	$-2.507 \cdot 10^{-27}$	-0.8579	$4.583 \cdot 10^{-11}$	$4.583 \cdot 10^{-11}$	$-1.44 \cdot 10^{-6}$

## 2.231 cuBRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow zc\bar{c}$	$7.395 \cdot 10^{-11}$	$7.395 \cdot 10^{-11}$	$1.352 \cdot 10^{-7}$	$3.877 \cdot 10^{-11}$	$3.877 \cdot 10^{-11}$	$2.837 \cdot 10^{-7}$

$HW^+ \rightarrow \gamma u \bar{d}$	$2.404 \cdot 10^{-16}$	$2.404 \cdot 10^{-16}$	$-7.07 \cdot 10^{-7}$	$2.936 \cdot 10^{-16}$	$2.936 \cdot 10^{-16}$	$-1.465 \cdot 10^{-6}$
$H\gamma \rightarrow c \bar{c}$	$9.164 \cdot 10^{-10}$	$9.164 \cdot 10^{-10}$	$1.31 \cdot 10^{-7}$	0.0001006	0.0001006	$2.982 \cdot 10^{-7}$
$H z \rightarrow u \bar{u}$	$2.466 \cdot 10^{-12}$	$2.466 \cdot 10^{-12}$	$-7.3 \cdot 10^{-7}$	$7.273 \cdot 10^{-11}$	$7.273 \cdot 10^{-11}$	$-1.457 \cdot 10^{-6}$
$W^+ W^- \rightarrow H c \bar{c}$	$-9.818 \cdot 10^{-12}$	$-9.818 \cdot 10^{-12}$	$1.324 \cdot 10^{-7}$	$3.698 \cdot 10^{-13}$	$3.698 \cdot 10^{-13}$	$2.704 \cdot 10^{-7}$
$b \bar{b} \rightarrow u \bar{u}$	$3.221 \cdot 10^{-14}$	$3.221 \cdot 10^{-14}$	$-7.141 \cdot 10^{-7}$	$1.648 \cdot 10^{-13}$	$1.648 \cdot 10^{-13}$	$-1.456 \cdot 10^{-6}$
$c \bar{c} \rightarrow \mu^+ \mu^-$	$-8.32 \cdot 10^{-8}$	$-8.32 \cdot 10^{-8}$	$1.322 \cdot 10^{-7}$	$7.116 \cdot 10^{-8}$	$7.116 \cdot 10^{-8}$	$2.811 \cdot 10^{-7}$
$d \bar{d} \rightarrow c \bar{c}$	$-2.97 \cdot 10^{-9}$	$-2.97 \cdot 10^{-9}$	$1.347 \cdot 10^{-7}$	$5.126 \cdot 10^{-8}$	$5.126 \cdot 10^{-8}$	$2.731 \cdot 10^{-7}$
$t \bar{t} \rightarrow c \bar{c}$	$-9.053 \cdot 10^{-7}$	$-9.053 \cdot 10^{-7}$	$1.436 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$1.107 \cdot 10^{-7}$	$2.709 \cdot 10^{-7}$
$u \bar{d} \rightarrow u \bar{d}$	$-8.302 \cdot 10^{-14}$	$-8.302 \cdot 10^{-14}$	$-7.228 \cdot 10^{-7}$	$4.489 \cdot 10^{-14}$	$4.489 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
$u \bar{u} \rightarrow \nu_e \bar{\nu}_e$	$2.078 \cdot 10^{-14}$	$2.078 \cdot 10^{-14}$	$-7.217 \cdot 10^{-7}$	$9.532 \cdot 10^{-14}$	$9.532 \cdot 10^{-14}$	$-1.448 \cdot 10^{-6}$
$u \bar{u} \rightarrow c \bar{c}$	$-2.507 \cdot 10^{-7}$	$-2.507 \cdot 10^{-7}$	$1.197 \cdot 10^{-7}$	$2.94 \cdot 10^{-8}$	$2.94 \cdot 10^{-8}$	$2.721 \cdot 10^{-7}$
$u \bar{u} \rightarrow u \bar{u}$	$1.893 \cdot 10^{-10}$	$1.893 \cdot 10^{-10}$	$-7.395 \cdot 10^{-7}$	$4.583 \cdot 10^{-11}$	$4.583 \cdot 10^{-11}$	$-1.44 \cdot 10^{-6}$

## 2.232 cuGIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b \bar{b} \rightarrow u \bar{u}$	$-8.608 \cdot 10^{-28}$	$-1.067 \cdot 10^{-27}$	$-0.2395$	$3.739 \cdot 10^{-12}$	$3.739 \cdot 10^{-12}$	$-1.444 \cdot 10^{-6}$
$d \bar{d} \rightarrow c \bar{c}$	$4.669 \cdot 10^{-22}$	$3.681 \cdot 10^{-22}$	$0.2116$	$1.565 \cdot 10^{-6}$	$1.565 \cdot 10^{-6}$	$3.194 \cdot 10^{-7}$
$g g \rightarrow u \bar{u}$	$-3.716 \cdot 10^{-28}$	$1.553 \cdot 10^{-27}$	$5.179$	$1.445 \cdot 10^{-11}$	$1.445 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$
$t \bar{t} \rightarrow c \bar{c}$	$-1.348 \cdot 10^{-23}$	$-5.56 \cdot 10^{-24}$	$0.5875$	$1.299 \cdot 10^{-6}$	$1.299 \cdot 10^{-6}$	$3.079 \cdot 10^{-7}$
$u \bar{d} \rightarrow u \bar{d}$	$-6.249 \cdot 10^{-28}$	$-6.613 \cdot 10^{-28}$	$-0.05816$	$5.611 \cdot 10^{-13}$	$5.611 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
$u \bar{u} \rightarrow c \bar{c}$	$1.059 \cdot 10^{-22}$	$1.566 \cdot 10^{-22}$	$-0.4792$	$2.106 \cdot 10^{-6}$	$2.106 \cdot 10^{-6}$	$2.85 \cdot 10^{-7}$
$u \bar{u} \rightarrow u \bar{u}$	$9.612 \cdot 10^{-27}$	$3.088 \cdot 10^{-26}$	$-2.213$	$3.57 \cdot 10^{-10}$	$3.57 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$

## 2.233 cuGRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1

$b\bar{b} \rightarrow u\bar{u}$	$-2.992 \cdot 10^{-11}$	$-2.992 \cdot 10^{-11}$	$-7.353 \cdot 10^{-7}$	$3.739 \cdot 10^{-12}$	$3.739 \cdot 10^{-12}$	$-1.444 \cdot 10^{-6}$
$d\bar{d} \rightarrow c\bar{c}$	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	$9.669 \cdot 10^{-8}$	$1.565 \cdot 10^{-6}$	$1.565 \cdot 10^{-6}$	$3.194 \cdot 10^{-7}$
$g\bar{g} \rightarrow u\bar{u}$	$-5.707 \cdot 10^{-11}$	$-5.707 \cdot 10^{-11}$	$-7.184 \cdot 10^{-7}$	$1.445 \cdot 10^{-11}$	$1.445 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$
$t\bar{t} \rightarrow c\bar{c}$	$-1.159 \cdot 10^{-5}$	$-1.159 \cdot 10^{-5}$	$8.631 \cdot 10^{-8}$	$1.299 \cdot 10^{-6}$	$1.299 \cdot 10^{-6}$	$3.079 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-3.001 \cdot 10^{-11}$	$-3.001 \cdot 10^{-11}$	$-7.331 \cdot 10^{-7}$	$5.611 \cdot 10^{-13}$	$5.611 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	$9.669 \cdot 10^{-8}$	$2.106 \cdot 10^{-6}$	$2.106 \cdot 10^{-6}$	$2.85 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$-2.575 \cdot 10^{-10}$	$-2.575 \cdot 10^{-10}$	$-7.377 \cdot 10^{-7}$	$3.57 \cdot 10^{-10}$	$3.57 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$

## 2.234 cuHIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hu\bar{u}$	$1.324 \cdot 10^{-25}$	$1.324 \cdot 10^{-25}$	$3.775 \cdot 10^{-7}$	$1.034 \cdot 10^{-15}$	$1.034 \cdot 10^{-15}$	$-1.451 \cdot 10^{-6}$
$HH \rightarrow W^-u\bar{d}$	$1.108 \cdot 10^{-15}$	$1.108 \cdot 10^{-15}$	$-7.222 \cdot 10^{-7}$	$2.107 \cdot 10^{-16}$	$2.107 \cdot 10^{-16}$	$-1.424 \cdot 10^{-6}$
$HH \rightarrow zc\bar{c}$	$-2.804 \cdot 10^{-11}$	$-2.804 \cdot 10^{-11}$	$1.426 \cdot 10^{-7}$	$9.357 \cdot 10^{-11}$	$9.357 \cdot 10^{-11}$	$2.779 \cdot 10^{-7}$
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.335 \cdot 10^{-17}$	$-1.335 \cdot 10^{-17}$	$-7.489 \cdot 10^{-7}$	$1.785 \cdot 10^{-18}$	$1.785 \cdot 10^{-18}$	$-1.456 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$5.12 \cdot 10^{-14}$	$5.12 \cdot 10^{-14}$	$-7.226 \cdot 10^{-7}$	$9.843 \cdot 10^{-12}$	$9.843 \cdot 10^{-12}$	$-1.443 \cdot 10^{-6}$
$H\gamma \rightarrow c\bar{c}$	$-6.353 \cdot 10^{-22}$	$-3.706 \cdot 10^{-22}$	$0.4167$	$1.062 \cdot 10^{-7}$	$1.062 \cdot 10^{-7}$	$2.825 \cdot 10^{-7}$
$H\gamma \rightarrow u\bar{u}$	$2.629 \cdot 10^{-17}$	$2.629 \cdot 10^{-17}$	$-7.227 \cdot 10^{-7}$	$9.591 \cdot 10^{-12}$	$9.591 \cdot 10^{-12}$	$-1.449 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$-1.47 \cdot 10^{-11}$	$-1.47 \cdot 10^{-11}$	$1.36 \cdot 10^{-7}$	$2.986 \cdot 10^{-12}$	$2.986 \cdot 10^{-12}$	$2.679 \cdot 10^{-7}$
$W^+W^- \rightarrow Hd\bar{d}$	$-9.653 \cdot 10^{-17}$	$-9.653 \cdot 10^{-17}$	$-7.251 \cdot 10^{-7}$	$1.231 \cdot 10^{-27}$	$1.231 \cdot 10^{-27}$	$-1.462 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$3.655 \cdot 10^{-32}$	$-1.207 \cdot 10^{-32}$	$1.33$	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	$-1.45 \cdot 10^{-6}$
$c\bar{c} \rightarrow \mu^+\mu^-$	$-4.295 \cdot 10^{-30}$	$5.478 \cdot 10^{-30}$	$2.275$	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	$2.906 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$-5.155 \cdot 10^{-32}$	$-1.193 \cdot 10^{-31}$	$-1.314$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$2.755 \cdot 10^{-7}$
$t\bar{t} \rightarrow c\bar{c}$	$3.862 \cdot 10^{-23}$	$3.855 \cdot 10^{-23}$	$0.001785$	$4.676 \cdot 10^{-8}$	$4.676 \cdot 10^{-8}$	$2.78 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-4.723 \cdot 10^{-35}$	$-4.743 \cdot 10^{-35}$	$-0.004302$	$9.378 \cdot 10^{-23}$	$9.378 \cdot 10^{-23}$	$-1.45 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$9.79 \cdot 10^{-34}$	$1.23 \cdot 10^{-33}$	$-0.2568$	$1.553 \cdot 10^{-17}$	$1.553 \cdot 10^{-17}$	$-5.794 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$3.28 \cdot 10^{-28}$	$3.917 \cdot 10^{-29}$	$0.8806$	$1.149 \cdot 10^{-22}$	$1.149 \cdot 10^{-22}$	$-1.479 \cdot 10^{-6}$

## 2.235 cuHRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hu\bar{u}$	$-6.212 \cdot 10^{-16}$	$-6.212 \cdot 10^{-16}$	$-7.244 \cdot 10^{-7}$	$7.289 \cdot 10^{-16}$	$7.289 \cdot 10^{-16}$	$-1.441 \cdot 10^{-6}$
$HH \rightarrow W^-u\bar{d}$	$-6.399 \cdot 10^{-16}$	$-6.399 \cdot 10^{-16}$	$-7.345 \cdot 10^{-7}$	$9.598 \cdot 10^{-16}$	$9.598 \cdot 10^{-16}$	$-1.448 \cdot 10^{-6}$
$HH \rightarrow zc\bar{c}$	$-7.559 \cdot 10^{-11}$	$-7.559 \cdot 10^{-11}$	$1.455 \cdot 10^{-7}$	$1.837 \cdot 10^{-10}$	$1.837 \cdot 10^{-10}$	$2.722 \cdot 10^{-7}$
$HW^+ \rightarrow \gamma u\bar{d}$	$-4.453 \cdot 10^{-17}$	$-4.453 \cdot 10^{-17}$	$-7.187 \cdot 10^{-7}$	$1.99 \cdot 10^{-17}$	$1.99 \cdot 10^{-17}$	$-1.407 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$-1.506 \cdot 10^{-12}$	$-1.506 \cdot 10^{-12}$	$-7.305 \cdot 10^{-7}$	$9.346 \cdot 10^{-12}$	$9.346 \cdot 10^{-12}$	$-1.455 \cdot 10^{-6}$
$H\gamma \rightarrow c\bar{c}$	$-4.918 \cdot 10^{-6}$	$-4.918 \cdot 10^{-6}$	$1.423 \cdot 10^{-7}$	$1.491 \cdot 10^{-7}$	$1.491 \cdot 10^{-7}$	$2.683 \cdot 10^{-7}$
$HZ \rightarrow u\bar{u}$	$1.834 \cdot 10^{-12}$	$1.834 \cdot 10^{-12}$	$-7.088 \cdot 10^{-7}$	$9.356 \cdot 10^{-12}$	$9.356 \cdot 10^{-12}$	$-1.454 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$-1.909 \cdot 10^{-10}$	$-1.909 \cdot 10^{-10}$	$1.572 \cdot 10^{-7}$	$6.98 \cdot 10^{-12}$	$6.98 \cdot 10^{-12}$	$2.722 \cdot 10^{-7}$
$W^+W^- \rightarrow Hdd$	$9.471 \cdot 10^{-17}$	$9.471 \cdot 10^{-17}$	$-7.18 \cdot 10^{-7}$	$2.028 \cdot 10^{-25}$	$2.028 \cdot 10^{-25}$	$-1.43 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-2.759 \cdot 10^{-15}$	$-2.759 \cdot 10^{-15}$	$-7.25 \cdot 10^{-7}$	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	$-1.45 \cdot 10^{-6}$
$c\bar{c} \rightarrow \mu^+\mu^-$	$-2.062 \cdot 10^{-13}$	$-2.062 \cdot 10^{-13}$	$1.455 \cdot 10^{-7}$	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	$2.744 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$-1.194 \cdot 10^{-15}$	$-1.194 \cdot 10^{-15}$	$1.675 \cdot 10^{-7}$	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	$2.755 \cdot 10^{-7}$
$t\bar{t} \rightarrow c\bar{c}$	$-1.533 \cdot 10^{-6}$	$-1.533 \cdot 10^{-6}$	$1.304 \cdot 10^{-7}$	$4.676 \cdot 10^{-8}$	$4.676 \cdot 10^{-8}$	$2.78 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-1.938 \cdot 10^{-21}$	$-1.938 \cdot 10^{-21}$	$-7.224 \cdot 10^{-7}$	$9.634 \cdot 10^{-23}$	$9.634 \cdot 10^{-23}$	$-1.443 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$-5.091 \cdot 10^{-16}$	$-5.091 \cdot 10^{-16}$	$-2.947 \cdot 10^{-7}$	$3.107 \cdot 10^{-17}$	$3.107 \cdot 10^{-17}$	$-5.794 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$1.821 \cdot 10^{-10}$	$1.821 \cdot 10^{-10}$	$-7.141 \cdot 10^{-7}$	$1.719 \cdot 10^{-22}$	$1.719 \cdot 10^{-22}$	$-1.454 \cdot 10^{-6}$

## 2.236 cuWIm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^-u\bar{d}$	$2.437 \cdot 10^{-17}$	$2.437 \cdot 10^{-17}$	$-7.386 \cdot 10^{-7}$	$5.262 \cdot 10^{-16}$	$5.262 \cdot 10^{-16}$	$-1.444 \cdot 10^{-6}$
$HH \rightarrow zc\bar{c}$	$-3.785 \cdot 10^{-11}$	$-3.785 \cdot 10^{-11}$	$1.321 \cdot 10^{-7}$	$8.167 \cdot 10^{-11}$	$8.167 \cdot 10^{-11}$	$2.694 \cdot 10^{-7}$
$HW^+ \rightarrow \gamma u\bar{d}$	$4.279 \cdot 10^{-18}$	$4.279 \cdot 10^{-18}$	$-7.245 \cdot 10^{-7}$	$2.199 \cdot 10^{-16}$	$2.199 \cdot 10^{-16}$	$-1.455 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$1.081 \cdot 10^{-14}$	$1.081 \cdot 10^{-14}$	$-7.399 \cdot 10^{-7}$	$2.782 \cdot 10^{-10}$	$2.782 \cdot 10^{-10}$	$-1.438 \cdot 10^{-6}$



$H\gamma \rightarrow c\bar{c}$	$-2.629 \cdot 10^{-23}$	$-2.622 \cdot 10^{-23}$	$0.002765$	$2.736 \cdot 10^{-5}$	$2.736 \cdot 10^{-5}$	$2.924 \cdot 10^{-7}$
$H z \rightarrow u\bar{u}$	$2.036 \cdot 10^{-14}$	$2.036 \cdot 10^{-14}$	$-6.877 \cdot 10^{-7}$	$1.923 \cdot 10^{-10}$	$1.923 \cdot 10^{-10}$	$-1.456 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$1.418 \cdot 10^{-10}$	$1.418 \cdot 10^{-10}$	$1.411 \cdot 10^{-7}$	$1.157 \cdot 10^{-10}$	$1.157 \cdot 10^{-10}$	$2.592 \cdot 10^{-7}$
$W^+W^- \rightarrow Hd\bar{d}$	$-1.342 \cdot 10^{-16}$	$-1.342 \cdot 10^{-16}$	$-6.707 \cdot 10^{-7}$	$1.987 \cdot 10^{-25}$	$1.987 \cdot 10^{-25}$	$-1.459 \cdot 10^{-6}$
$\bar{b}t \rightarrow \bar{d}u$	$1.402 \cdot 10^{-26}$	$1.406 \cdot 10^{-26}$	$-0.003201$	$1.82 \cdot 10^{-12}$	$1.82 \cdot 10^{-12}$	$-1.484 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-3.429 \cdot 10^{-29}$	$-1.438 \cdot 10^{-29}$	$0.5806$	$9.763 \cdot 10^{-13}$	$9.763 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
$c\bar{c} \rightarrow \mu^+\mu^-$	$7.586 \cdot 10^{-23}$	$7.586 \cdot 10^{-23}$	$2.36 \cdot 10^{-6}$	$6.483 \cdot 10^{-8}$	$6.483 \cdot 10^{-8}$	$2.777 \cdot 10^{-7}$
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$-4.762 \cdot 10^{-23}$	$-4.73 \cdot 10^{-23}$	$0.006661$	$4.569 \cdot 10^{-8}$	$4.569 \cdot 10^{-8}$	$2.626 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$6.754 \cdot 10^{-24}$	$-8.602 \cdot 10^{-24}$	$2.274$	$3.436 \cdot 10^{-7}$	$3.436 \cdot 10^{-7}$	$2.91 \cdot 10^{-7}$
$t\bar{t} \rightarrow c\bar{c}$	$5.537 \cdot 10^{-22}$	$5.482 \cdot 10^{-22}$	$0.01007$	$2.403 \cdot 10^{-7}$	$2.403 \cdot 10^{-7}$	$2.914 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$4.638 \cdot 10^{-28}$	$4.642 \cdot 10^{-28}$	$-0.0008504$	$6.623 \cdot 10^{-13}$	$6.623 \cdot 10^{-13}$	$-1.45 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$-3.53 \cdot 10^{-23}$	$-1.765 \cdot 10^{-23}$	$0.4999$	$6.69 \cdot 10^{-7}$	$6.69 \cdot 10^{-7}$	$2.691 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$2.912 \cdot 10^{-25}$	$2.913 \cdot 10^{-25}$	$-0.0004085$	$5.596 \cdot 10^{-12}$	$5.596 \cdot 10^{-12}$	$-1.448 \cdot 10^{-6}$
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	$-8.177 \cdot 10^{-29}$	$-8.177 \cdot 10^{-29}$	$4.195 \cdot 10^{-6}$	$1.984 \cdot 10^{-13}$	$1.984 \cdot 10^{-13}$	$-1.461 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$-4.446 \cdot 10^{-24}$	$3.838 \cdot 10^{-25}$	$1.086$	$3.16 \cdot 10^{-7}$	$3.16 \cdot 10^{-7}$	$2.848 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$-2.062 \cdot 10^{-26}$	$-2.103 \cdot 10^{-26}$	$-0.01949$	$1.173 \cdot 10^{-11}$	$1.173 \cdot 10^{-11}$	$-1.449 \cdot 10^{-6}$

## 2.237 cuWRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^-u\bar{d}$	$-1.933 \cdot 10^{-15}$	$-1.933 \cdot 10^{-15}$	$-7.244 \cdot 10^{-7}$	$1.463 \cdot 10^{-15}$	$1.463 \cdot 10^{-15}$	$-1.435 \cdot 10^{-6}$
$HH \rightarrow zc\bar{c}$	$-1.09 \cdot 10^{-10}$	$-1.09 \cdot 10^{-10}$	$9.172 \cdot 10^{-8}$	$7.009 \cdot 10^{-11}$	$7.009 \cdot 10^{-11}$	$2.854 \cdot 10^{-7}$
$HW^+ \rightarrow \gamma u\bar{d}$	$2.482 \cdot 10^{-17}$	$2.482 \cdot 10^{-17}$	$-7.253 \cdot 10^{-7}$	$8.602 \cdot 10^{-17}$	$8.602 \cdot 10^{-17}$	$-1.442 \cdot 10^{-6}$
$HW^+ \rightarrow u\bar{d}$	$-8.861 \cdot 10^{-12}$	$-8.861 \cdot 10^{-12}$	$-7.222 \cdot 10^{-7}$	$3.144 \cdot 10^{-10}$	$3.144 \cdot 10^{-10}$	$-1.431 \cdot 10^{-6}$
$H\gamma \rightarrow c\bar{c}$	$2.326 \cdot 10^{-9}$	$2.326 \cdot 10^{-9}$	$1.72 \cdot 10^{-7}$	$6.669 \cdot 10^{-6}$	$6.669 \cdot 10^{-6}$	$2.699 \cdot 10^{-7}$
$H z \rightarrow u\bar{u}$	$-4.467 \cdot 10^{-12}$	$-4.467 \cdot 10^{-12}$	$-7.388 \cdot 10^{-7}$	$1.153 \cdot 10^{-10}$	$1.153 \cdot 10^{-10}$	$-1.388 \cdot 10^{-6}$
$W^+W^- \rightarrow Hc\bar{c}$	$-7.883 \cdot 10^{-10}$	$-7.883 \cdot 10^{-10}$	$1.395 \cdot 10^{-7}$	$5.166 \cdot 10^{-10}$	$5.166 \cdot 10^{-10}$	$2.71 \cdot 10^{-7}$
$W^+W^- \rightarrow Hd\bar{d}$	$-1.042 \cdot 10^{-16}$	$-1.042 \cdot 10^{-16}$	$-7.681 \cdot 10^{-7}$	$8.134 \cdot 10^{-26}$	$8.134 \cdot 10^{-26}$	$-1.451 \cdot 10^{-6}$

$\bar{b}t \rightarrow \bar{d}u$	$1.757 \cdot 10^{-12}$	$1.757 \cdot 10^{-12}$	$-6.832 \cdot 10^{-7}$	$1.001 \cdot 10^{-12}$	$1.001 \cdot 10^{-12}$	$-1.398 \cdot 10^{-6}$
$b\bar{b} \rightarrow u\bar{u}$	$-9.008 \cdot 10^{-14}$	$-9.008 \cdot 10^{-14}$	$-7.216 \cdot 10^{-7}$	$6.054 \cdot 10^{-13}$	$6.054 \cdot 10^{-13}$	$-1.437 \cdot 10^{-6}$
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-7.11 \cdot 10^{-8}$	$-7.11 \cdot 10^{-8}$	$1.406 \cdot 10^{-7}$	$4.581 \cdot 10^{-8}$	$4.581 \cdot 10^{-8}$	$2.62 \cdot 10^{-7}$
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-2.718 \cdot 10^{-7}$	$-2.718 \cdot 10^{-7}$	$1.472 \cdot 10^{-7}$	$7.099 \cdot 10^{-8}$	$7.099 \cdot 10^{-8}$	$2.676 \cdot 10^{-7}$
$d\bar{d} \rightarrow c\bar{c}$	$-5.849 \cdot 10^{-8}$	$-5.849 \cdot 10^{-8}$	$1.368 \cdot 10^{-7}$	$2.534 \cdot 10^{-7}$	$2.534 \cdot 10^{-7}$	$2.762 \cdot 10^{-7}$
$t\bar{t} \rightarrow c\bar{c}$	$-1.121 \cdot 10^{-6}$	$-1.121 \cdot 10^{-6}$	$1.783 \cdot 10^{-7}$	$1.892 \cdot 10^{-7}$	$1.892 \cdot 10^{-7}$	$2.642 \cdot 10^{-7}$
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-5.781 \cdot 10^{-13}$	$-5.781 \cdot 10^{-13}$	$-7.266 \cdot 10^{-7}$	$5.832 \cdot 10^{-13}$	$5.832 \cdot 10^{-13}$	$-1.44 \cdot 10^{-6}$
$u\bar{d} \rightarrow c\bar{s}$	$-7.366 \cdot 10^{-7}$	$-7.366 \cdot 10^{-7}$	$1.358 \cdot 10^{-7}$	$3.934 \cdot 10^{-7}$	$3.934 \cdot 10^{-7}$	$2.542 \cdot 10^{-7}$
$u\bar{d} \rightarrow u\bar{d}$	$-7.442 \cdot 10^{-12}$	$-7.442 \cdot 10^{-12}$	$-7.256 \cdot 10^{-7}$	$3.185 \cdot 10^{-13}$	$3.185 \cdot 10^{-13}$	$-1.444 \cdot 10^{-6}$
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$-1.338 \cdot 10^{-13}$	$-1.338 \cdot 10^{-13}$	$-7.472 \cdot 10^{-7}$	$3.292 \cdot 10^{-13}$	$3.293 \cdot 10^{-13}$	$-1.458 \cdot 10^{-6}$
$u\bar{u} \rightarrow c\bar{c}$	$-2.776 \cdot 10^{-7}$	$-2.776 \cdot 10^{-7}$	$1.441 \cdot 10^{-7}$	$3.4 \cdot 10^{-7}$	$3.4 \cdot 10^{-7}$	$2.647 \cdot 10^{-7}$
$u\bar{u} \rightarrow u\bar{u}$	$1.688 \cdot 10^{-10}$	$1.688 \cdot 10^{-10}$	$-7.109 \cdot 10^{-7}$	$6.056 \cdot 10^{-11}$	$6.056 \cdot 10^{-11}$	$-1.453 \cdot 10^{-6}$

## 2.238 cud1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	-0.03026	-0.03026	0	0.5303	0.5303	0
$u\bar{d} \rightarrow u\bar{d}$	0.7821	0.7821	0	0.8793	0.8793	0

## 2.239 cud8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$d\bar{d} \rightarrow c\bar{c}$	0.3229	0.3229	0	0.109	0.109	0
$u\bar{d} \rightarrow u\bar{d}$	-0.2208	-0.2208	0	0.04209	0.04209	0

## 2.240 cutbd1Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$8.759 \cdot 10^{-27}$	$8.759 \cdot 10^{-27}$	$-1.336 \cdot 10^{-6}$	$1.034 \cdot 10^{-19}$	$1.034 \cdot 10^{-19}$	$-2.612 \cdot 10^{-6}$

## 2.241 cutbd1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-5.229 \cdot 10^{-23}$	$-5.229 \cdot 10^{-23}$	$-1.339 \cdot 10^{-6}$	$3.218 \cdot 10^{-21}$	$3.218 \cdot 10^{-21}$	$-2.673 \cdot 10^{-6}$

## 2.242 cutbd8Im

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$1.168 \cdot 10^{-26}$	$1.168 \cdot 10^{-26}$	$-1.284 \cdot 10^{-6}$	$1.494 \cdot 10^{-20}$	$1.494 \cdot 10^{-20}$	$-2.61 \cdot 10^{-6}$

## 2.243 cutbd8Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-6.972 \cdot 10^{-23}$	$-6.972 \cdot 10^{-23}$	$-1.334 \cdot 10^{-6}$	$7.151 \cdot 10^{-22}$	$7.151 \cdot 10^{-22}$	$-2.671 \cdot 10^{-6}$

## 2.244 cuu1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$u\bar{u} \rightarrow c\bar{c}$	0.2107	0.2107	0	3.693	3.693	0
$u\bar{u} \rightarrow u\bar{u}$	-23.07	-23.07	0	8.748	8.748	0

## 2.245 cuu8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$u\bar{u} \rightarrow c\bar{c}$	0.3937	0.3937	$-2.54 \cdot 10^{-8}$	0.2657	0.2657	0
$u\bar{u} \rightarrow u\bar{u}$	-5.945	-5.945	$-8.41 \cdot 10^{-8}$	0.9298	0.9298	$-1.936 \cdot 10^{-7}$

## 2.246 sm

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	0	0	0	0.2189	0.2189	0
$HH \rightarrow HHH$	0	0	0	$4.632 \cdot 10^{-7}$	$4.632 \cdot 10^{-7}$	0
$HH \rightarrow H\tau^+\tau^-$	0	0	0	$2.591 \cdot 10^{-11}$	$2.591 \cdot 10^{-11}$	0
$HH \rightarrow Hb\bar{b}$	0	0	0	$3.602 \cdot 10^{-11}$	$3.602 \cdot 10^{-11}$	0
$HH \rightarrow Hs\bar{s}$	0	0	0	$8.542 \cdot 10^{-14}$	$8.542 \cdot 10^{-14}$	0
$HH \rightarrow Ht\bar{t}$	0	0	0	$6.933 \cdot 10^{-5}$	$6.933 \cdot 10^{-5}$	0
$HH \rightarrow Hu\bar{u}$	0	0	0	$2.955 \cdot 10^{-16}$	$2.955 \cdot 10^{-16}$	0
$HH \rightarrow Hzz$	0	0	0	$7.78 \cdot 10^{-6}$	$7.78 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	0	0	0	0.4793	0.4793	0
$HH \rightarrow W^+W^-\gamma$	0	0	0	$8.064 \cdot 10^{-6}$	$8.064 \cdot 10^{-6}$	0
$HH \rightarrow W^+\bar{t}b$	0	0	0	$3.354 \cdot 10^{-6}$	$3.354 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	0	0	0	$4.93 \cdot 10^{-7}$	$4.93 \cdot 10^{-7}$	0
$HH \rightarrow W^-u\bar{d}$	0	0	0	0.01636	0.01636	0
$HH \rightarrow z\bar{b}b$	0	0	0	$4.728 \cdot 10^{-6}$	$4.728 \cdot 10^{-6}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	0	0	0	$1.044 \cdot 10^{-7}$	$1.044 \cdot 10^{-7}$	0
$HH \rightarrow zc\bar{c}$	0	0	0	$1.042 \cdot 10^{-6}$	$1.042 \cdot 10^{-6}$	0
$HH \rightarrow zd\bar{d}$	0	0	0	$3.636 \cdot 10^{-7}$	$3.636 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	0	0	0	$4.23 \cdot 10^{-7}$	$4.23 \cdot 10^{-7}$	0

$HH \rightarrow zt\bar{t}$	0	0	0	0.001149	0.001149	0
$HH \rightarrow zz$	0	0	0	0.07679	0.07679	0
$HW^+ \rightarrow \gamma t\bar{b}$	0	0	0	$4.565 \cdot 10^{-5}$	$4.565 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	0	0	0	$7.604 \cdot 10^{-9}$	$7.604 \cdot 10^{-9}$	0
$HW^+ \rightarrow u\bar{d}$	0	0	0	0.01579	0.01579	0
$HW^- \rightarrow \bar{t}b$	0	0	0	0.2595	0.2595	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	0	0	0	$1.043 \cdot 10^{-8}$	$1.043 \cdot 10^{-8}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	0	0	0	0.001156	0.001156	0
$H\gamma \rightarrow b\bar{b}$	0	0	0	$9.926 \cdot 10^{-5}$	$9.926 \cdot 10^{-5}$	0
$H\gamma \rightarrow c\bar{c}$	0	0	0	$5.252 \cdot 10^{-5}$	$5.252 \cdot 10^{-5}$	0
$H\gamma \rightarrow d\bar{d}$	0	0	0	$3.378 \cdot 10^{-10}$	$3.378 \cdot 10^{-10}$	0
$H\gamma \rightarrow e^+ e^-$	0	0	0	$3.856 \cdot 10^{-12}$	$3.856 \cdot 10^{-12}$	0
$H\gamma \rightarrow t\bar{t}$	0	0	0	0.5175	0.5175	0
$H z \rightarrow \mu^+ \mu^-$	0	0	0	0.003297	0.003297	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	0	0	0	0.004983	0.004983	0
$H z \rightarrow b\bar{b}$	0	0	0	0.01405	0.01405	0
$H z \rightarrow s\bar{s}$	0	0	0	0.01438	0.01438	0
$H z \rightarrow t\bar{t}$	0	0	0	3.255	3.255	0
$H z \rightarrow u\bar{u}$	0	0	0	0.01058	0.01058	0
$W^+ W^- \rightarrow H b\bar{b}$	0	0	0	$1.661 \cdot 10^{-7}$	$1.661 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H c\bar{c}$	0	0	0	$1.364 \cdot 10^{-6}$	$1.364 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H d\bar{d}$	0	0	0	$1 \cdot 10^{-7}$	$1 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H t\bar{t}$	0	0	0	$1.768 \cdot 10^{-5}$	$1.768 \cdot 10^{-5}$	0
$W^+ W^- \rightarrow W^+ W^-$	0	0	0	25.83	25.83	0
$W^+ W^- \rightarrow \gamma\gamma$	0	0	0	0.1896	0.1896	0
$W^+ W^- \rightarrow \gamma\gamma\gamma$	0	0	0	$5.512 \cdot 10^{-5}$	$5.512 \cdot 10^{-5}$	0
$\bar{b}t \rightarrow \bar{d}u$	0	0	0	0.02312	0.02312	0
$\gamma W^+ \rightarrow z W^+$	0	0	0	17.94	17.94	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	0	0	0	0.007092	0.007092	0

$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	0	0	0	$1.087 \cdot 10^{-11}$	$1.087 \cdot 10^{-11}$	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	0	0	0	0.0002812	0.0002812	0
$b\bar{b} \rightarrow \gamma\gamma$	0	0	0	0.0004918	0.0004918	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	0	0	0	0.00101	0.00101	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	0	0	0	0.002911	0.002911	0
$b\bar{b} \rightarrow b\bar{b}$	0	0	0	38.59	38.59	0
$b\bar{b} \rightarrow d\bar{d}$	0	0	0	0.4941	0.4941	0
$b\bar{b} \rightarrow t\bar{t}$	0	0	0	0.4148	0.4148	0
$b\bar{b} \rightarrow u\bar{u}$	0	0	0	0.8599	0.8599	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	0	0	0	0.007778	0.007778	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	0	0	0	0.006442	0.006442	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	0	0	0	0.0004513	0.0004513	0
$d\bar{d} \rightarrow c\bar{c}$	0	0	0	0.5384	0.5384	0
$d\bar{d} \rightarrow e^+ e^-$	0	0	0	0.0002958	0.0002958	0
$d\bar{d} \rightarrow s\bar{s}$	0	0	0	0.6906	0.6906	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0	0	0	0.02634	0.02634	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	0	0	0	0.01348	0.01348	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	0	0	0	0.01123	0.01123	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	0	0	0	0.3873	0.3873	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	0	0	0	0.00812	0.00812	0
$e^+ e^- \rightarrow e^+ e^-$	0	0	0	0.03823	0.03823	0
$gg \rightarrow gg$	0	0	0	129.1	129.1	0
$gg \rightarrow ggg$	0	0	0	0.3733	0.3733	0
$gg \rightarrow t\bar{t}$	0	0	0	0.4375	0.4375	0
$gg \rightarrow u\bar{u}$	0	0	0	0.558	0.558	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0	0	0	0.001146	0.001146	0
$s\bar{s} \rightarrow s\bar{s}$	0	0	0	2.411	2.411	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	0	0	0	0.001389	0.001389	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	0	0	0	0.001011	0.001011	0

$t\bar{t} \rightarrow c\bar{c}$	0	0	0	0.6421	0.6421	0
$t\bar{t} \rightarrow d\bar{d}$	0	0	0	1.03	1.03	0
$t\bar{t} \rightarrow s\bar{s}$	0	0	0	0.6704	0.6704	0
$t\bar{t} \rightarrow t\bar{t}$	0	0	0	0.4729	0.4729	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	0	0	0	0.005333	0.005333	0
$u\bar{d} \rightarrow c\bar{s}$	0	0	0	0.007163	0.007163	0
$u\bar{d} \rightarrow u\bar{d}$	0	0	0	8745	8745	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	0	0	0	0.002195	0.002195	0
$u\bar{u} \rightarrow c\bar{c}$	0	0	0	0.5504	0.5504	0
$u\bar{u} \rightarrow u\bar{u}$	0	0	0	25.62	25.62	0
$zz \rightarrow W^+W^-$	0	0	0	33.13	33.13	0
$zz \rightarrow zz$	0	0	0	0.07706	0.07706	0