

# 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	-1.128	-1.128	0	1.976	1.976	0
cHDD	-0.1141	-0.1141	0	0.01481	0.01481	0
cHl3	-0.03901	-0.03901	0	0.002365	0.002365	0
cll1	0.01951	0.01951	0	0.0005913	0.0005913	0
sm	0	0	0	0.1609	0.1609	0

## 1.2 $HH \rightarrow HHH$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$5.65 \cdot 10^{-6}$	$5.65 \cdot 10^{-6}$	0	$6.056 \cdot 10^{-5}$	$6.056 \cdot 10^{-5}$	0
cHDD	$6.734 \cdot 10^{-7}$	$6.734 \cdot 10^{-7}$	0	$3.785 \cdot 10^{-7}$	$3.785 \cdot 10^{-7}$	0
cHl3	$-4.794 \cdot 10^{-8}$	$-4.794 \cdot 10^{-8}$	0	$4.36 \cdot 10^{-9}$	$4.36 \cdot 10^{-9}$	0
cll1	$2.397 \cdot 10^{-8}$	$2.397 \cdot 10^{-8}$	0	$1.09 \cdot 10^{-9}$	$1.09 \cdot 10^{-9}$	0
sm	0	0	0	$1.318 \cdot 10^{-7}$	$1.318 \cdot 10^{-7}$	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	$-6.527 \cdot 10^{-10}$	$-6.527 \cdot 10^{-10}$	0	$1.133 \cdot 10^{-9}$	$1.133 \cdot 10^{-9}$	0
cHDD	$-1.756 \cdot 10^{-10}$	$-1.756 \cdot 10^{-10}$	0	$3.75 \cdot 10^{-11}$	$3.75 \cdot 10^{-11}$	0
cHl3	$-3.421 \cdot 10^{-11}$	$-3.421 \cdot 10^{-11}$	0	$3.111 \cdot 10^{-12}$	$3.111 \cdot 10^{-12}$	0

ceHRe	$-2.5 \cdot 10^{-10}$	$-2.5 \cdot 10^{-10}$	0	$7.602 \cdot 10^{-11}$	$7.602 \cdot 10^{-11}$	0
c111	$1.711 \cdot 10^{-11}$	$1.711 \cdot 10^{-11}$	0	$7.777 \cdot 10^{-13}$	$7.777 \cdot 10^{-13}$	0
sm	0	0	0	$9.405 \cdot 10^{-11}$	$9.405 \cdot 10^{-11}$	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	$-4.047 \cdot 10^{-9}$	$-4.047 \cdot 10^{-9}$	0	$1.174 \cdot 10^{-8}$	$1.174 \cdot 10^{-8}$	0
cHDD	$-2.679 \cdot 10^{-10}$	$-2.679 \cdot 10^{-10}$	0	$1.498 \cdot 10^{-10}$	$1.498 \cdot 10^{-10}$	0
cH13	$-1.315 \cdot 10^{-10}$	$-1.315 \cdot 10^{-10}$	0	$1.196 \cdot 10^{-11}$	$1.196 \cdot 10^{-11}$	0
cdHRe	$-6.689 \cdot 10^{-10}$	$-6.689 \cdot 10^{-10}$	0	$9.581 \cdot 10^{-10}$	$9.581 \cdot 10^{-10}$	0
c111	$6.575 \cdot 10^{-11}$	$6.575 \cdot 10^{-11}$	0	$2.99 \cdot 10^{-12}$	$2.99 \cdot 10^{-12}$	0
sm	0	0	0	$3.615 \cdot 10^{-10}$	$3.615 \cdot 10^{-10}$	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	$-3.423 \cdot 10^{-12}$	$-3.423 \cdot 10^{-12}$	0	$7.705 \cdot 10^{-12}$	$7.705 \cdot 10^{-12}$	0
cHDD	$-4.261 \cdot 10^{-13}$	$-4.261 \cdot 10^{-13}$	0	$1.626 \cdot 10^{-13}$	$1.626 \cdot 10^{-13}$	0
cH13	$-1.383 \cdot 10^{-13}$	$-1.383 \cdot 10^{-13}$	0	$1.257 \cdot 10^{-14}$	$1.257 \cdot 10^{-14}$	0
cdHRe	$-1.349 \cdot 10^{-12}$	$-1.349 \cdot 10^{-12}$	0	$1.631 \cdot 10^{-12}$	$1.631 \cdot 10^{-12}$	0
c111	$6.913 \cdot 10^{-14}$	$6.913 \cdot 10^{-14}$	0	$3.143 \cdot 10^{-15}$	$3.143 \cdot 10^{-15}$	0
sm	0	0	0	$3.801 \cdot 10^{-13}$	$3.801 \cdot 10^{-13}$	0

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

interference

square

	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
cH	$6.654 \cdot 10^{-5}$	$6.654 \cdot 10^{-5}$	0		$1.685 \cdot 10^{-5}$	$1.685 \cdot 10^{-5}$	0
cHDD	$6.779 \cdot 10^{-6}$	$6.779 \cdot 10^{-6}$	0		$4.856 \cdot 10^{-7}$	$4.856 \cdot 10^{-7}$	0
cHl3	$-2.624 \cdot 10^{-5}$	$-2.624 \cdot 10^{-5}$	0		$2.386 \cdot 10^{-6}$	$2.386 \cdot 10^{-6}$	0
c1l1	$1.312 \cdot 10^{-5}$	$1.312 \cdot 10^{-5}$	0		$5.965 \cdot 10^{-7}$	$5.965 \cdot 10^{-7}$	0
cuHRe	$2.259 \cdot 10^{-5}$	$2.259 \cdot 10^{-5}$	0		$6.435 \cdot 10^{-6}$	$6.435 \cdot 10^{-6}$	0
sm	0	0	0		$7.214 \cdot 10^{-5}$	$7.214 \cdot 10^{-5}$	0

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

	interference				square		
	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
cH	$-1.154 \cdot 10^{-15}$	$-1.154 \cdot 10^{-15}$	0		$3.88 \cdot 10^{-15}$	$3.88 \cdot 10^{-15}$	0
cHDD	$-3.159 \cdot 10^{-16}$	$-3.159 \cdot 10^{-16}$	0		$9.856 \cdot 10^{-17}$	$9.856 \cdot 10^{-17}$	0
cHl3	$-3.123 \cdot 10^{-17}$	$-3.123 \cdot 10^{-17}$	0		$2.84 \cdot 10^{-18}$	$2.84 \cdot 10^{-18}$	0
c1l1	$1.562 \cdot 10^{-17}$	$1.562 \cdot 10^{-17}$	0		$7.101 \cdot 10^{-19}$	$7.101 \cdot 10^{-19}$	0
cuHRe	$-8.618 \cdot 10^{-16}$	$-8.618 \cdot 10^{-16}$	0		$7.337 \cdot 10^{-16}$	$7.337 \cdot 10^{-16}$	0
sm	0	0	0		$8.587 \cdot 10^{-17}$	$8.587 \cdot 10^{-17}$	0

### 1.8 $HH \rightarrow Hzz$

	interference				square		
	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
cH	-0.0001384	-0.0001384	0		$5.69 \cdot 10^{-5}$	$5.69 \cdot 10^{-5}$	0
cHB	$-4.712 \cdot 10^{-6}$	$-4.712 \cdot 10^{-6}$	0		$1.233 \cdot 10^{-6}$	$1.233 \cdot 10^{-6}$	0
cHDD	$5.589 \cdot 10^{-6}$	$5.589 \cdot 10^{-6}$	0		$2.534 \cdot 10^{-6}$	$2.534 \cdot 10^{-6}$	0
cHW	$-2.328 \cdot 10^{-5}$	$-2.328 \cdot 10^{-5}$	0		$2.298 \cdot 10^{-5}$	$2.298 \cdot 10^{-5}$	0
cHWB	$-8.535 \cdot 10^{-6}$	$-8.535 \cdot 10^{-6}$	0		$4.047 \cdot 10^{-6}$	$4.047 \cdot 10^{-6}$	0
cHl3	$-3.964 \cdot 10^{-5}$	$-3.964 \cdot 10^{-5}$	0		$3.605 \cdot 10^{-6}$	$3.605 \cdot 10^{-6}$	0

c111	$1.982 \cdot 10^{-5}$	$1.982 \cdot 10^{-5}$	0	$9.012 \cdot 10^{-7}$	$9.012 \cdot 10^{-7}$	0
sm	0	0	0	0.000109	0.000109	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	15.26	15.26	0	0.1331	0.1331	0
cHDD	-0.8941	-0.8941	0	0.1503	0.1503	0
cHW	2.137	2.137	0	15.14	15.14	0
cHWB	-10.14	-10.14	0	5.048	5.048	0
cH13	-304.3	-304.3	0	40.72	40.72	0
c111	104.6	104.6	0	7.131	7.131	0
sm	0	0	0	437.4	437.4	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-3.462 \cdot 10^{-7}$	$-3.462 \cdot 10^{-7}$	0	$4.117 \cdot 10^{-7}$	$4.117 \cdot 10^{-7}$	0
cHB	$9.87 \cdot 10^{-6}$	$9.87 \cdot 10^{-6}$	0	$1.554 \cdot 10^{-6}$	$1.554 \cdot 10^{-6}$	0
cHDD	$-2.732 \cdot 10^{-5}$	$-2.732 \cdot 10^{-5}$	0	$2.738 \cdot 10^{-6}$	$2.738 \cdot 10^{-6}$	0
cHW	$7.903 \cdot 10^{-7}$	$7.903 \cdot 10^{-7}$	0	$6.777 \cdot 10^{-5}$	$6.777 \cdot 10^{-5}$	0
cHWB	-0.0001518	-0.0001518	0	$4.868 \cdot 10^{-5}$	$4.868 \cdot 10^{-5}$	0
cH13	$-4.437 \cdot 10^{-6}$	$-4.437 \cdot 10^{-6}$	0	$3.876 \cdot 10^{-6}$	$3.876 \cdot 10^{-6}$	0
cW	$8.045 \cdot 10^{-8}$	$8.045 \cdot 10^{-8}$	0	$5.343 \cdot 10^{-7}$	$5.343 \cdot 10^{-7}$	0
c111	$-1.059 \cdot 10^{-6}$	$-1.059 \cdot 10^{-6}$	0	$4.574 \cdot 10^{-7}$	$4.574 \cdot 10^{-7}$	0
sm	0	0	0	$4.447 \cdot 10^{-7}$	$4.447 \cdot 10^{-7}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.892 \cdot 10^{-6}$	$1.892 \cdot 10^{-6}$	0	$3.098 \cdot 10^{-6}$	$3.098 \cdot 10^{-6}$	0
cHDD	$1.255 \cdot 10^{-6}$	$1.255 \cdot 10^{-6}$	0	$8.633 \cdot 10^{-6}$	$8.633 \cdot 10^{-6}$	0
cHW	$-1.383 \cdot 10^{-5}$	$-1.383 \cdot 10^{-5}$	0	$2.41 \cdot 10^{-5}$	$2.41 \cdot 10^{-5}$	0
cHWB	$-2.287 \cdot 10^{-5}$	$-2.287 \cdot 10^{-5}$	0	$1.907 \cdot 10^{-5}$	$1.907 \cdot 10^{-5}$	0
cHl3	$-5.244 \cdot 10^{-5}$	$-5.244 \cdot 10^{-5}$	0	$3.217 \cdot 10^{-5}$	$3.217 \cdot 10^{-5}$	0
cHq3	$8.602 \cdot 10^{-6}$	$8.602 \cdot 10^{-6}$	0	$1.128 \cdot 10^{-5}$	$1.128 \cdot 10^{-5}$	0
cHudRe	$-2.648 \cdot 10^{-8}$	$-2.648 \cdot 10^{-8}$	0	$3.236 \cdot 10^{-9}$	$3.236 \cdot 10^{-9}$	0
cdHRe	$-2.596 \cdot 10^{-8}$	$-2.596 \cdot 10^{-8}$	0	$3.045 \cdot 10^{-9}$	$3.045 \cdot 10^{-9}$	0
cdWRe	$1.268 \cdot 10^{-8}$	$1.268 \cdot 10^{-8}$	0	$1.394 \cdot 10^{-8}$	$1.394 \cdot 10^{-8}$	0
cll1	$-2.998 \cdot 10^{-6}$	$-2.998 \cdot 10^{-6}$	0	$2.951 \cdot 10^{-6}$	$2.951 \cdot 10^{-6}$	0
cuHRe	$3.413 \cdot 10^{-5}$	$3.413 \cdot 10^{-5}$	0	$1.92 \cdot 10^{-5}$	$1.92 \cdot 10^{-5}$	0
cuWRe	$-6.713 \cdot 10^{-5}$	$-6.713 \cdot 10^{-5}$	0	$1.427 \cdot 10^{-5}$	$1.427 \cdot 10^{-5}$	0
sm	0	0	0	$9.67 \cdot 10^{-6}$	$9.67 \cdot 10^{-6}$	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	$8.288 \cdot 10^{-10}$	$8.288 \cdot 10^{-10}$	0	$2.302 \cdot 10^{-9}$	$2.302 \cdot 10^{-9}$	0
cHDD	$-1.75 \cdot 10^{-6}$	$-1.75 \cdot 10^{-6}$	0	$2.686 \cdot 10^{-7}$	$2.686 \cdot 10^{-7}$	0
cHW	$4.747 \cdot 10^{-7}$	$4.747 \cdot 10^{-7}$	0	$2.948 \cdot 10^{-6}$	$2.948 \cdot 10^{-6}$	0
cHWB	$-1.487 \cdot 10^{-5}$	$-1.487 \cdot 10^{-5}$	0	$7.101 \cdot 10^{-6}$	$7.101 \cdot 10^{-6}$	0
cHl3	$3.909 \cdot 10^{-7}$	$3.909 \cdot 10^{-7}$	0	$3.302 \cdot 10^{-7}$	$3.302 \cdot 10^{-7}$	0
ceHRe	$-1.46 \cdot 10^{-17}$	$-1.46 \cdot 10^{-17}$	0	$1.654 \cdot 10^{-18}$	$1.654 \cdot 10^{-18}$	0
ceWRe	$-2.789 \cdot 10^{-18}$	$-2.789 \cdot 10^{-18}$	0	$9.573 \cdot 10^{-19}$	$9.573 \cdot 10^{-19}$	0

c111	$2.305 \cdot 10^{-8}$	$2.305 \cdot 10^{-8}$	0	$4.855 \cdot 10^{-9}$	$4.855 \cdot 10^{-9}$	0
sm	0	0	0	$9.32 \cdot 10^{-8}$	$9.32 \cdot 10^{-8}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.738 \cdot 10^{-7}$	$1.738 \cdot 10^{-7}$	0	$1.063 \cdot 10^{-7}$	$1.063 \cdot 10^{-7}$	0
cHDD	$-1.05 \cdot 10^{-7}$	$-1.05 \cdot 10^{-7}$	0	$9.439 \cdot 10^{-9}$	$9.439 \cdot 10^{-9}$	0
cHW	$8.003 \cdot 10^{-6}$	$8.003 \cdot 10^{-6}$	0	$5.561 \cdot 10^{-5}$	$5.561 \cdot 10^{-5}$	0
cHWB	$-3.672 \cdot 10^{-7}$	$-3.672 \cdot 10^{-7}$	0	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0
cH13	$-3.191 \cdot 10^{-6}$	$-3.191 \cdot 10^{-6}$	0	$1.472 \cdot 10^{-6}$	$1.472 \cdot 10^{-6}$	0
cHq3	$1.176 \cdot 10^{-6}$	$1.176 \cdot 10^{-6}$	0	$3.576 \cdot 10^{-7}$	$3.576 \cdot 10^{-7}$	0
cHudRe	$-1.094 \cdot 10^{-24}$	$-1.094 \cdot 10^{-24}$	0	$5.276 \cdot 10^{-26}$	$5.276 \cdot 10^{-26}$	0
cdHRe	$-1.063 \cdot 10^{-15}$	$-1.063 \cdot 10^{-15}$	0	$1.949 \cdot 10^{-15}$	$1.949 \cdot 10^{-15}$	0
cdWRe	$1.324 \cdot 10^{-15}$	$1.324 \cdot 10^{-15}$	0	$1.211 \cdot 10^{-15}$	$1.211 \cdot 10^{-15}$	0
c111	$1.829 \cdot 10^{-7}$	$1.829 \cdot 10^{-7}$	0	$1.682 \cdot 10^{-7}$	$1.682 \cdot 10^{-7}$	0
cuHRe	$-5.875 \cdot 10^{-16}$	$-5.875 \cdot 10^{-16}$	0	$2.33 \cdot 10^{-16}$	$2.33 \cdot 10^{-16}$	0
cuWRe	$-4.375 \cdot 10^{-16}$	$-4.375 \cdot 10^{-16}$	0	$1.089 \cdot 10^{-16}$	$1.089 \cdot 10^{-16}$	0
sm	0	0	0	$9.669 \cdot 10^{-7}$	$9.669 \cdot 10^{-7}$	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	$4.119 \cdot 10^{-8}$	$4.119 \cdot 10^{-8}$	0	$5.64 \cdot 10^{-9}$	$5.64 \cdot 10^{-9}$	0
cHB	$-4.936 \cdot 10^{-7}$	$-4.936 \cdot 10^{-7}$	0	$6.341 \cdot 10^{-7}$	$6.341 \cdot 10^{-7}$	0
cHDD	$-1.224 \cdot 10^{-7}$	$-1.224 \cdot 10^{-7}$	0	$4.161 \cdot 10^{-7}$	$4.161 \cdot 10^{-7}$	0
cHW	$-4.327 \cdot 10^{-7}$	$-4.327 \cdot 10^{-7}$	0	$4.194 \cdot 10^{-6}$	$4.194 \cdot 10^{-6}$	0

cHWB	$-1.371 \cdot 10^{-6}$	$-1.371 \cdot 10^{-6}$	0	$2.233 \cdot 10^{-6}$	$2.233 \cdot 10^{-6}$	0
cHd	$-9.431 \cdot 10^{-8}$	$-9.431 \cdot 10^{-8}$	0	$1.784 \cdot 10^{-7}$	$1.784 \cdot 10^{-7}$	0
cHl3	$-1.35 \cdot 10^{-7}$	$-1.35 \cdot 10^{-7}$	0	$1.446 \cdot 10^{-8}$	$1.446 \cdot 10^{-8}$	0
cHq1	$4.997 \cdot 10^{-7}$	$4.997 \cdot 10^{-7}$	0	$1.783 \cdot 10^{-7}$	$1.783 \cdot 10^{-7}$	0
cHq3	$9.648 \cdot 10^{-7}$	$9.648 \cdot 10^{-7}$	0	$9.699 \cdot 10^{-7}$	$9.699 \cdot 10^{-7}$	0
cdBRe	$3.149 \cdot 10^{-9}$	$3.149 \cdot 10^{-9}$	0	$5.123 \cdot 10^{-10}$	$5.123 \cdot 10^{-10}$	0
cdHRe	$4.063 \cdot 10^{-10}$	$4.063 \cdot 10^{-10}$	0	$2.777 \cdot 10^{-10}$	$2.777 \cdot 10^{-10}$	0
cdWRe	$5.705 \cdot 10^{-9}$	$5.705 \cdot 10^{-9}$	0	$1.681 \cdot 10^{-9}$	$1.681 \cdot 10^{-9}$	0
c111	$6.749 \cdot 10^{-8}$	$6.749 \cdot 10^{-8}$	0	$3.615 \cdot 10^{-9}$	$3.615 \cdot 10^{-9}$	0
sm	0	0	0	$3.249 \cdot 10^{-7}$	$3.249 \cdot 10^{-7}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$1.782 \cdot 10^{-8}$	$1.782 \cdot 10^{-8}$	0	$2.843 \cdot 10^{-9}$	$2.843 \cdot 10^{-9}$	0
cHB	$1.001 \cdot 10^{-7}$	$1.001 \cdot 10^{-7}$	0	$5.082 \cdot 10^{-8}$	$5.082 \cdot 10^{-8}$	0
cHDD	$-7.077 \cdot 10^{-9}$	$-7.077 \cdot 10^{-9}$	0	$1.2 \cdot 10^{-9}$	$1.2 \cdot 10^{-9}$	0
cHW	$2.777 \cdot 10^{-7}$	$2.777 \cdot 10^{-7}$	0	$1.319 \cdot 10^{-6}$	$1.319 \cdot 10^{-6}$	0
cHWB	$1.813 \cdot 10^{-7}$	$1.813 \cdot 10^{-7}$	0	$1.668 \cdot 10^{-7}$	$1.668 \cdot 10^{-7}$	0
cHl1	$-1.425 \cdot 10^{-6}$	$-1.425 \cdot 10^{-6}$	0	$2.097 \cdot 10^{-6}$	$2.097 \cdot 10^{-6}$	0
cHl3	$4.416 \cdot 10^{-7}$	$4.416 \cdot 10^{-7}$	0	$2.712 \cdot 10^{-7}$	$2.712 \cdot 10^{-7}$	0
c111	$3.269 \cdot 10^{-8}$	$3.269 \cdot 10^{-8}$	0	$1.486 \cdot 10^{-9}$	$1.486 \cdot 10^{-9}$	0
sm	0	0	0	$1.797 \cdot 10^{-7}$	$1.797 \cdot 10^{-7}$	0

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

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

cH	$5.309 \cdot 10^{-7}$	$5.309 \cdot 10^{-7}$	0	$1.362 \cdot 10^{-8}$	$1.362 \cdot 10^{-8}$	0
cHB	$5.022 \cdot 10^{-8}$	$5.022 \cdot 10^{-8}$	0	$6.762 \cdot 10^{-7}$	$6.762 \cdot 10^{-7}$	0
cHDD	$-3.867 \cdot 10^{-9}$	$-3.867 \cdot 10^{-9}$	0	$4.164 \cdot 10^{-9}$	$4.164 \cdot 10^{-9}$	0
cHW	$2.143 \cdot 10^{-6}$	$2.143 \cdot 10^{-6}$	0	$1.09 \cdot 10^{-5}$	$1.09 \cdot 10^{-5}$	0
cHWB	$1.961 \cdot 10^{-7}$	$1.961 \cdot 10^{-7}$	0	$6.593 \cdot 10^{-7}$	$6.593 \cdot 10^{-7}$	0
cHl3	$-2.58 \cdot 10^{-6}$	$-2.58 \cdot 10^{-6}$	0	$3.346 \cdot 10^{-7}$	$3.346 \cdot 10^{-7}$	0
cHq1	$-1.186 \cdot 10^{-6}$	$-1.186 \cdot 10^{-6}$	0	$1.646 \cdot 10^{-6}$	$1.646 \cdot 10^{-6}$	0
cHq3	$1.353 \cdot 10^{-5}$	$1.353 \cdot 10^{-5}$	0	$9.308 \cdot 10^{-6}$	$9.308 \cdot 10^{-6}$	0
cHu	$5.359 \cdot 10^{-7}$	$5.359 \cdot 10^{-7}$	0	$1.646 \cdot 10^{-6}$	$1.646 \cdot 10^{-6}$	0
cll1	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0	$8.365 \cdot 10^{-8}$	$8.365 \cdot 10^{-8}$	0
cuBRe	$6.424 \cdot 10^{-11}$	$6.424 \cdot 10^{-11}$	0	$1.587 \cdot 10^{-11}$	$1.587 \cdot 10^{-11}$	0
cuHRe	$-9.397 \cdot 10^{-11}$	$-9.397 \cdot 10^{-11}$	0	$1.456 \cdot 10^{-10}$	$1.456 \cdot 10^{-10}$	0
cuWRe	$-1.164 \cdot 10^{-10}$	$-1.164 \cdot 10^{-10}$	0	$5.207 \cdot 10^{-11}$	$5.207 \cdot 10^{-11}$	0
sm	0	0	0	$5.927 \cdot 10^{-6}$	$5.927 \cdot 10^{-6}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$8.324 \cdot 10^{-9}$	$8.324 \cdot 10^{-9}$	0	$6.829 \cdot 10^{-11}$	$6.829 \cdot 10^{-11}$	0
cHB	$5.668 \cdot 10^{-8}$	$5.668 \cdot 10^{-8}$	0	$5.162 \cdot 10^{-7}$	$5.162 \cdot 10^{-7}$	0
cHDD	$-4.008 \cdot 10^{-8}$	$-4.008 \cdot 10^{-8}$	0	$3.362 \cdot 10^{-8}$	$3.362 \cdot 10^{-8}$	0
cHW	$8.253 \cdot 10^{-7}$	$8.253 \cdot 10^{-7}$	0	$5.624 \cdot 10^{-7}$	$5.624 \cdot 10^{-7}$	0
cHWB	$1.44 \cdot 10^{-7}$	$1.44 \cdot 10^{-7}$	0	$1.718 \cdot 10^{-6}$	$1.718 \cdot 10^{-6}$	0
cHd	$-2.151 \cdot 10^{-7}$	$-2.151 \cdot 10^{-7}$	0	$6.644 \cdot 10^{-7}$	$6.644 \cdot 10^{-7}$	0
cHl3	$-4.151 \cdot 10^{-7}$	$-4.151 \cdot 10^{-7}$	0	$4.437 \cdot 10^{-8}$	$4.437 \cdot 10^{-8}$	0
cHq1	$1.167 \cdot 10^{-6}$	$1.167 \cdot 10^{-6}$	0	$6.646 \cdot 10^{-7}$	$6.646 \cdot 10^{-7}$	0
cHq3	$1.103 \cdot 10^{-5}$	$1.103 \cdot 10^{-5}$	0	$3.14 \cdot 10^{-5}$	$3.14 \cdot 10^{-5}$	0
cdBRe	$-2.043 \cdot 10^{-15}$	$-2.043 \cdot 10^{-15}$	0	$5.701 \cdot 10^{-16}$	$5.701 \cdot 10^{-16}$	0



cdHRe	$-4.081 \cdot 10^{-15}$	$-4.081 \cdot 10^{-15}$	0	$1.994 \cdot 10^{-15}$	$1.994 \cdot 10^{-15}$	0
cdWRe	$-3.701 \cdot 10^{-15}$	$-3.701 \cdot 10^{-15}$	0	$1.871 \cdot 10^{-15}$	$1.871 \cdot 10^{-15}$	0
cll1	$2.075 \cdot 10^{-7}$	$2.075 \cdot 10^{-7}$	0	$1.109 \cdot 10^{-8}$	$1.109 \cdot 10^{-8}$	0
sm	0	0	0	$1.001 \cdot 10^{-6}$	$1.001 \cdot 10^{-6}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$-1.187 \cdot 10^{-10}$	$-1.187 \cdot 10^{-10}$	0	$2.381 \cdot 10^{-11}$	$2.381 \cdot 10^{-11}$	0
cHB	$-3.558 \cdot 10^{-7}$	$-3.558 \cdot 10^{-7}$	0	$5.318 \cdot 10^{-6}$	$5.318 \cdot 10^{-6}$	0
cHDD	$-1.91 \cdot 10^{-8}$	$-1.91 \cdot 10^{-8}$	0	$4.701 \cdot 10^{-7}$	$4.701 \cdot 10^{-7}$	0
cHW	$-1.275 \cdot 10^{-9}$	$-1.275 \cdot 10^{-9}$	0	$1.82 \cdot 10^{-7}$	$1.82 \cdot 10^{-7}$	0
cHWB	$-7.351 \cdot 10^{-7}$	$-7.351 \cdot 10^{-7}$	0	$4.18 \cdot 10^{-6}$	$4.18 \cdot 10^{-6}$	0
cHe	$-3.543 \cdot 10^{-7}$	$-3.543 \cdot 10^{-7}$	0	$1.804 \cdot 10^{-6}$	$1.804 \cdot 10^{-6}$	0
cHl1	$1.67 \cdot 10^{-7}$	$1.67 \cdot 10^{-7}$	0	$4.102 \cdot 10^{-8}$	$4.102 \cdot 10^{-8}$	0
cHl3	$3.888 \cdot 10^{-7}$	$3.888 \cdot 10^{-7}$	0	$1.672 \cdot 10^{-6}$	$1.672 \cdot 10^{-6}$	0
ceBRe	$-4.986 \cdot 10^{-19}$	$-4.986 \cdot 10^{-19}$	0	$1.014 \cdot 10^{-19}$	$1.014 \cdot 10^{-19}$	0
ceHRe	$1.861 \cdot 10^{-19}$	$1.861 \cdot 10^{-19}$	0	$7.308 \cdot 10^{-19}$	$7.308 \cdot 10^{-19}$	0
ceWRe	$-1.268 \cdot 10^{-18}$	$-1.268 \cdot 10^{-18}$	0	$7.03 \cdot 10^{-18}$	$7.03 \cdot 10^{-18}$	0
cll1	$7.707 \cdot 10^{-9}$	$7.707 \cdot 10^{-9}$	0	$6.343 \cdot 10^{-10}$	$6.343 \cdot 10^{-10}$	0
sm	0	0	0	$4.003 \cdot 10^{-8}$	$4.003 \cdot 10^{-8}$	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	$-2.363 \cdot 10^{-6}$	$-2.363 \cdot 10^{-6}$	0	$1.571 \cdot 10^{-7}$	$1.571 \cdot 10^{-7}$	0
cHB	$-1.43 \cdot 10^{-6}$	$-1.43 \cdot 10^{-6}$	0	$2.225 \cdot 10^{-6}$	$2.225 \cdot 10^{-6}$	0

cHDD	$-2.677 \cdot 10^{-5}$	$-2.677 \cdot 10^{-5}$	0	$3.515 \cdot 10^{-5}$	$3.515 \cdot 10^{-5}$	0
cHW	$-1.011 \cdot 10^{-5}$	$-1.011 \cdot 10^{-5}$	0	$1.34 \cdot 10^{-6}$	$1.34 \cdot 10^{-6}$	0
cHWB	$-4.826 \cdot 10^{-6}$	$-4.826 \cdot 10^{-6}$	0	$2.819 \cdot 10^{-6}$	$2.819 \cdot 10^{-6}$	0
cH13	$-5.214 \cdot 10^{-5}$	$-5.214 \cdot 10^{-5}$	0	$5.295 \cdot 10^{-6}$	$5.295 \cdot 10^{-6}$	0
cHq1	$7.945 \cdot 10^{-6}$	$7.945 \cdot 10^{-6}$	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0
cHq3	$-0.0001428$	$-0.0001428$	0	$0.0001406$	$0.0001406$	0
cHu	$7.316 \cdot 10^{-6}$	$7.316 \cdot 10^{-6}$	0	$1.83 \cdot 10^{-5}$	$1.83 \cdot 10^{-5}$	0
c111	$2.607 \cdot 10^{-5}$	$2.607 \cdot 10^{-5}$	0	$1.324 \cdot 10^{-6}$	$1.324 \cdot 10^{-6}$	0
cuBRe	$-2.443 \cdot 10^{-6}$	$-2.443 \cdot 10^{-6}$	0	$1.943 \cdot 10^{-5}$	$1.943 \cdot 10^{-5}$	0
cuHRe	$-1.176 \cdot 10^{-6}$	$-1.176 \cdot 10^{-6}$	0	$4.152 \cdot 10^{-7}$	$4.152 \cdot 10^{-7}$	0
cuWRe	$4.426 \cdot 10^{-6}$	$4.426 \cdot 10^{-6}$	0	$6.375 \cdot 10^{-5}$	$6.375 \cdot 10^{-5}$	0
sm	0	0	0	0.0001369	0.0001369	0

## 1.20 $HH \rightarrow zz$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	0.01317	0.01317	0	0.06606	0.06606	0
cHB	0.06346	0.06346	0	0.2963	0.2963	0
cHDD	-3.316	-3.316	0	0.3456	0.3456	0
cHW	0.01942	0.01942	0	2.202	2.202	0
cHWB	0.1149	0.1149	0	0.9724	0.9724	0
cH13	-0.01843	-0.01843	0	0.001117	0.001117	0
c111	0.009213	0.009213	0	0.0002793	0.0002793	0
sm	0	0	0	0.07598	0.07598	0

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

interference square

	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
cHB	$4.479 \cdot 10^{-7}$	$4.479 \cdot 10^{-7}$	0		$1.211 \cdot 10^{-7}$	$1.211 \cdot 10^{-7}$	0
cHDD	$-6.871 \cdot 10^{-7}$	$-6.871 \cdot 10^{-7}$	0		$2.929 \cdot 10^{-8}$	$2.929 \cdot 10^{-8}$	0
cHW	$-5.835 \cdot 10^{-6}$	$-5.835 \cdot 10^{-6}$	0		$5.208 \cdot 10^{-7}$	$5.208 \cdot 10^{-7}$	0
cHWB	$-2.302 \cdot 10^{-6}$	$-2.302 \cdot 10^{-6}$	0		$2.514 \cdot 10^{-6}$	$2.514 \cdot 10^{-6}$	0
cHl3	$-1.169 \cdot 10^{-5}$	$-1.169 \cdot 10^{-5}$	0		$1.113 \cdot 10^{-6}$	$1.113 \cdot 10^{-6}$	0
cHq3	$-9.444 \cdot 10^{-6}$	$-9.444 \cdot 10^{-6}$	0		$1.532 \cdot 10^{-6}$	$1.532 \cdot 10^{-6}$	0
cHudRe	$-1.132 \cdot 10^{-10}$	$-1.132 \cdot 10^{-10}$	0		$8.179 \cdot 10^{-12}$	$8.179 \cdot 10^{-12}$	0
cW	$-1.57 \cdot 10^{-7}$	$-1.57 \cdot 10^{-7}$	0		$8.886 \cdot 10^{-7}$	$8.886 \cdot 10^{-7}$	0
cdBRe	$-3.851 \cdot 10^{-9}$	$-3.851 \cdot 10^{-9}$	0		$1.426 \cdot 10^{-9}$	$1.426 \cdot 10^{-9}$	0
cdHRe	$1.672 \cdot 10^{-11}$	$1.672 \cdot 10^{-11}$	0		$2.895 \cdot 10^{-12}$	$2.895 \cdot 10^{-12}$	0
cdWRe	$6.737 \cdot 10^{-9}$	$6.737 \cdot 10^{-9}$	0		$2.367 \cdot 10^{-9}$	$2.367 \cdot 10^{-9}$	0
c111	$5.048 \cdot 10^{-6}$	$5.048 \cdot 10^{-6}$	0		$2.308 \cdot 10^{-7}$	$2.308 \cdot 10^{-7}$	0
cuBRe	$1.334 \cdot 10^{-6}$	$1.334 \cdot 10^{-6}$	0		$4.534 \cdot 10^{-6}$	$4.534 \cdot 10^{-6}$	0
cuHRe	$1.39 \cdot 10^{-8}$	$1.39 \cdot 10^{-8}$	0		$2.031 \cdot 10^{-9}$	$2.031 \cdot 10^{-9}$	0
cuWRe	$-6.348 \cdot 10^{-7}$	$-6.348 \cdot 10^{-7}$	0		$1.735 \cdot 10^{-6}$	$1.735 \cdot 10^{-6}$	0
sm	0	0	0		$3.193 \cdot 10^{-5}$	$3.193 \cdot 10^{-5}$	0

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

	interference			square		
	mod1	mod2	1 − mod2/mod1	mod1	mod2	1 − mod2/mod1
cHB	$3.837 \cdot 10^{-8}$	$3.837 \cdot 10^{-8}$	0	$9.198 \cdot 10^{-9}$	$9.198 \cdot 10^{-9}$	0
cHDD	$-1.685 \cdot 10^{-8}$	$-1.685 \cdot 10^{-8}$	0	$6.786 \cdot 10^{-10}$	$6.786 \cdot 10^{-10}$	0
cHW	$-3.376 \cdot 10^{-7}$	$-3.376 \cdot 10^{-7}$	0	$7.724 \cdot 10^{-6}$	$7.724 \cdot 10^{-6}$	0
cHWB	$-8.295 \cdot 10^{-8}$	$-8.295 \cdot 10^{-8}$	0	$2.828 \cdot 10^{-6}$	$2.828 \cdot 10^{-6}$	0
cHl3	$-2.584 \cdot 10^{-8}$	$-2.584 \cdot 10^{-8}$	0	$2.597 \cdot 10^{-9}$	$2.597 \cdot 10^{-9}$	0
cHq3	$6.809 \cdot 10^{-8}$	$6.809 \cdot 10^{-8}$	0	$2.513 \cdot 10^{-8}$	$2.513 \cdot 10^{-8}$	0
cHudRe	$-2.735 \cdot 10^{-25}$	$-2.735 \cdot 10^{-25}$	0	$1.353 \cdot 10^{-26}$	$1.353 \cdot 10^{-26}$	0

cW	$3.222 \cdot 10^{-7}$	$3.222 \cdot 10^{-7}$	0	$1.885 \cdot 10^{-6}$	$1.885 \cdot 10^{-6}$	0
cdBRe	$-1.773 \cdot 10^{-15}$	$-1.773 \cdot 10^{-15}$	0	$4.349 \cdot 10^{-15}$	$4.349 \cdot 10^{-15}$	0
cdHRe	$-2.225 \cdot 10^{-16}$	$-2.225 \cdot 10^{-16}$	0	$2.328 \cdot 10^{-17}$	$2.328 \cdot 10^{-17}$	0
cdWRe	$1.306 \cdot 10^{-15}$	$1.306 \cdot 10^{-15}$	0	$1.49 \cdot 10^{-15}$	$1.49 \cdot 10^{-15}$	0
cll1	$1.251 \cdot 10^{-8}$	$1.251 \cdot 10^{-8}$	0	$6.284 \cdot 10^{-10}$	$6.284 \cdot 10^{-10}$	0
cuBRe	$6.644 \cdot 10^{-17}$	$6.644 \cdot 10^{-17}$	0	$4.916 \cdot 10^{-16}$	$4.916 \cdot 10^{-16}$	0
cuHRe	$5.907 \cdot 10^{-17}$	$5.907 \cdot 10^{-17}$	0	$2.036 \cdot 10^{-18}$	$2.036 \cdot 10^{-18}$	0
cuWRe	$-8.8 \cdot 10^{-17}$	$-8.8 \cdot 10^{-17}$	0	$9.04 \cdot 10^{-17}$	$9.04 \cdot 10^{-17}$	0
sm	0	0	0	$6.289 \cdot 10^{-8}$	$6.289 \cdot 10^{-8}$	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	-0.002814	-0.002814	0	0.0001134	0.0001134	0
cHW	0.01232	0.01232	0	0.0586	0.0586	0
cHWB	-0.005313	-0.005313	0	0.0003836	0.0003836	0
cHl3	-0.00847	-0.00847	0	0.0008511	0.0008511	0
cHq3	0.3808	0.3808	0	1.811	1.811	0
cHudRe	$-2.344 \cdot 10^{-19}$	$-2.344 \cdot 10^{-19}$	0	$4.198 \cdot 10^{-20}$	$4.198 \cdot 10^{-20}$	0
cdHRe	$-5.874 \cdot 10^{-12}$	$-5.874 \cdot 10^{-12}$	0	$4.379 \cdot 10^{-11}$	$4.379 \cdot 10^{-11}$	0
cdWRe	$-3.784 \cdot 10^{-11}$	$-3.784 \cdot 10^{-11}$	0	$1.28 \cdot 10^{-9}$	$1.28 \cdot 10^{-9}$	0
cll1	0.003923	0.003923	0	0.0001971	0.0001971	0
cuHRe	$-8.694 \cdot 10^{-12}$	$-8.694 \cdot 10^{-12}$	0	$9.722 \cdot 10^{-12}$	$9.722 \cdot 10^{-12}$	0
cuWRe	$-7.671 \cdot 10^{-12}$	$-7.671 \cdot 10^{-12}$	0	$2.272 \cdot 10^{-10}$	$2.272 \cdot 10^{-10}$	0
sm	0	0	0	0.02002	0.02002	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.9171	-0.9171	0	0.06045	0.06045	0
cHW	-0.05226	-0.05226	0	0.06312	0.06312	0
cHWB	-2.07	-2.07	0	0.2822	0.2822	0
cHl3	-0.3412	-0.3412	0	0.0937	0.0937	0
cHq3	-0.8716	-0.8716	0	1.617	1.617	0
cHudRe	-0.0008805	-0.0008805	0	$7.91 \cdot 10^{-5}$	$7.91 \cdot 10^{-5}$	0
cdHRe	0.0002098	0.0002098	0	$3.618 \cdot 10^{-5}$	$3.618 \cdot 10^{-5}$	0
cdWRe	-0.0001706	-0.0001706	0	0.00119	0.00119	0
cll1	0.05588	0.05588	0	0.0134	0.0134	0
cuHRe	-0.107	-0.107	0	0.04579	0.04579	0
cuWRe	-0.09066	-0.09066	0	0.5232	0.5232	0
sm	0	0	0	0.2225	0.2225	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	$5.902 \cdot 10^{-9}$	$5.902 \cdot 10^{-9}$	0	$4.858 \cdot 10^{-8}$	$4.858 \cdot 10^{-8}$	0
cHDD	$-1.882 \cdot 10^{-10}$	$-1.882 \cdot 10^{-10}$	0	$7.58 \cdot 10^{-12}$	$7.58 \cdot 10^{-12}$	0
cHW	$1.392 \cdot 10^{-8}$	$1.392 \cdot 10^{-8}$	0	$8.548 \cdot 10^{-8}$	$8.548 \cdot 10^{-8}$	0
cHWB	$-5.341 \cdot 10^{-9}$	$-5.341 \cdot 10^{-9}$	0	$2.575 \cdot 10^{-7}$	$2.575 \cdot 10^{-7}$	0
cHl3	$1.396 \cdot 10^{-7}$	$1.396 \cdot 10^{-7}$	0	$4.227 \cdot 10^{-7}$	$4.227 \cdot 10^{-7}$	0
cW	$-2.139 \cdot 10^{-8}$	$-2.139 \cdot 10^{-8}$	0	$1.978 \cdot 10^{-7}$	$1.978 \cdot 10^{-7}$	0
ceBRe	$-1.603 \cdot 10^{-18}$	$-1.603 \cdot 10^{-18}$	0	$8.78 \cdot 10^{-18}$	$8.78 \cdot 10^{-18}$	0
ceHRe	$1.636 \cdot 10^{-19}$	$1.636 \cdot 10^{-19}$	0	$7.718 \cdot 10^{-21}$	$7.718 \cdot 10^{-21}$	0
ceWRe	$-8.152 \cdot 10^{-19}$	$-8.152 \cdot 10^{-19}$	0	$5.145 \cdot 10^{-18}$	$5.145 \cdot 10^{-18}$	0
cll1	$2.475 \cdot 10^{-9}$	$2.475 \cdot 10^{-9}$	0	$1.243 \cdot 10^{-10}$	$1.243 \cdot 10^{-10}$	0

sm	0	0	0	$1.258 \cdot 10^{-8}$	$1.258 \cdot 10^{-8}$	0
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### 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	-0.00102	-0.00102	0	$4.108 \cdot 10^{-5}$	$4.108 \cdot 10^{-5}$	0
cHW	0.007131	0.007131	0	0.03392	0.03392	0
cHWB	-0.001926	-0.001926	0	0.0001391	0.0001391	0
cHl3	0.01129	0.01129	0	0.0526	0.0526	0
ceHRe	$-9.809 \cdot 10^{-10}$	$-9.809 \cdot 10^{-10}$	0	$7.477 \cdot 10^{-9}$	$7.477 \cdot 10^{-9}$	0
ceWRe	$-5.196 \cdot 10^{-9}$	$-5.196 \cdot 10^{-9}$	0	$1.049 \cdot 10^{-8}$	$1.049 \cdot 10^{-8}$	0
c1l1	0.0001188	0.0001188	0	$5.965 \cdot 10^{-6}$	$5.965 \cdot 10^{-6}$	0
sm	0	0	0	0.0005978	0.0005978	0

### 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	$-1.241 \cdot 10^{-8}$	$-1.241 \cdot 10^{-8}$	0	0.005033	0.005033	0
cHDD	$-2.294 \cdot 10^{-6}$	$-2.294 \cdot 10^{-6}$	0	$1.738 \cdot 10^{-8}$	$1.738 \cdot 10^{-8}$	0
cHW	$-2.886 \cdot 10^{-6}$	$-2.886 \cdot 10^{-6}$	0	0.01062	0.01062	0
cHWB	$3.795 \cdot 10^{-8}$	$3.795 \cdot 10^{-8}$	0	0.006296	0.006296	0
cHl3	$-1.106 \cdot 10^{-5}$	$-1.106 \cdot 10^{-5}$	0	$3.353 \cdot 10^{-7}$	$3.353 \cdot 10^{-7}$	0
cdBRe	$-5.345 \cdot 10^{-8}$	$-5.345 \cdot 10^{-8}$	0	0.001096	0.001096	0
cdHRe	$-9.175 \cdot 10^{-6}$	$-9.175 \cdot 10^{-6}$	0	$2.781 \cdot 10^{-7}$	$2.781 \cdot 10^{-7}$	0
cdWRe	$2.951 \cdot 10^{-8}$	$2.951 \cdot 10^{-8}$	0	0.0003341	0.0003341	0
c1l1	$5.531 \cdot 10^{-6}$	$5.531 \cdot 10^{-6}$	0	$8.383 \cdot 10^{-8}$	$8.383 \cdot 10^{-8}$	0
sm	0	0	0	$9.124 \cdot 10^{-5}$	$9.124 \cdot 10^{-5}$	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	$-3.533 \cdot 10^{-5}$	$-3.533 \cdot 10^{-5}$	0	0.03199	0.03199	0
cHDD	$-7.925 \cdot 10^{-6}$	$-7.925 \cdot 10^{-6}$	0	$6.006 \cdot 10^{-8}$	$6.006 \cdot 10^{-8}$	0
cHW	$-4.832 \cdot 10^{-6}$	$-4.832 \cdot 10^{-6}$	0	0.01495	0.01495	0
cHWB	$2.905 \cdot 10^{-5}$	$2.905 \cdot 10^{-5}$	0	0.01923	0.01923	0
cHl3	$-9.801 \cdot 10^{-6}$	$-9.801 \cdot 10^{-6}$	0	$2.971 \cdot 10^{-7}$	$2.971 \cdot 10^{-7}$	0
cll1	$4.9 \cdot 10^{-6}$	$4.9 \cdot 10^{-6}$	0	$7.427 \cdot 10^{-8}$	$7.427 \cdot 10^{-8}$	0
cuBRe	$7.068 \cdot 10^{-9}$	$7.068 \cdot 10^{-9}$	0	$1.304 \cdot 10^{-5}$	$1.304 \cdot 10^{-5}$	0
cuHRe	$-3.17 \cdot 10^{-5}$	$-3.17 \cdot 10^{-5}$	0	$9.609 \cdot 10^{-7}$	$9.609 \cdot 10^{-7}$	0
cuWRe	$3.902 \cdot 10^{-9}$	$3.902 \cdot 10^{-9}$	0	$3.975 \cdot 10^{-6}$	$3.975 \cdot 10^{-6}$	0
sm	0	0	0	$8.083 \cdot 10^{-5}$	$8.083 \cdot 10^{-5}$	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	$-1.068 \cdot 10^{-13}$	$-1.068 \cdot 10^{-13}$	0	0.005114	0.005114	0
cHDD	$-2.91 \cdot 10^{-12}$	$-2.91 \cdot 10^{-12}$	0	$2.205 \cdot 10^{-14}$	$2.205 \cdot 10^{-14}$	0
cHW	$-3.894 \cdot 10^{-11}$	$-3.894 \cdot 10^{-11}$	0	0.01534	0.01534	0
cHWB	$3.264 \cdot 10^{-13}$	$3.264 \cdot 10^{-13}$	0	0.006396	0.006396	0
cHl3	$-3.723 \cdot 10^{-11}$	$-3.723 \cdot 10^{-11}$	0	$1.129 \cdot 10^{-12}$	$1.129 \cdot 10^{-12}$	0
cdBRe	$-2.225 \cdot 10^{-19}$	$-2.225 \cdot 10^{-19}$	0	$5.076 \cdot 10^{-10}$	$5.076 \cdot 10^{-10}$	0
cdHRe	$-1.164 \cdot 10^{-11}$	$-1.164 \cdot 10^{-11}$	0	$3.529 \cdot 10^{-13}$	$3.529 \cdot 10^{-13}$	0
cdWRe	$1.228 \cdot 10^{-19}$	$1.228 \cdot 10^{-19}$	0	$1.547 \cdot 10^{-10}$	$1.547 \cdot 10^{-10}$	0
cll1	$1.862 \cdot 10^{-11}$	$1.862 \cdot 10^{-11}$	0	$2.822 \cdot 10^{-13}$	$2.822 \cdot 10^{-13}$	0
sm	0	0	0	$3.071 \cdot 10^{-10}$	$3.071 \cdot 10^{-10}$	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	$-1.229 \cdot 10^{-14}$	$-1.229 \cdot 10^{-14}$	0	0.0152	0.0152	0
cHDD	$-1.046 \cdot 10^{-13}$	$-1.046 \cdot 10^{-13}$	0	$7.929 \cdot 10^{-16}$	$7.929 \cdot 10^{-16}$	0
cHW	$-4.569 \cdot 10^{-13}$	$-4.569 \cdot 10^{-13}$	0	0.005076	0.005076	0
cHWB	$7.108 \cdot 10^{-15}$	$7.108 \cdot 10^{-15}$	0	0.005176	0.005176	0
cHl3	$-1.324 \cdot 10^{-12}$	$-1.324 \cdot 10^{-12}$	0	$4.012 \cdot 10^{-14}$	$4.012 \cdot 10^{-14}$	0
ceBRe	$5.894 \cdot 10^{-23}$	$5.894 \cdot 10^{-23}$	0	$6.473 \cdot 10^{-12}$	$6.473 \cdot 10^{-12}$	0
ceHRe	$-4.185 \cdot 10^{-13}$	$-4.185 \cdot 10^{-13}$	0	$1.269 \cdot 10^{-14}$	$1.269 \cdot 10^{-14}$	0
ceWRe	$4.75 \cdot 10^{-23}$	$4.75 \cdot 10^{-23}$	0	$6.237 \cdot 10^{-13}$	$6.237 \cdot 10^{-13}$	0
cll1	$6.618 \cdot 10^{-13}$	$6.618 \cdot 10^{-13}$	0	$1.003 \cdot 10^{-14}$	$1.003 \cdot 10^{-14}$	0
sm	0	0	0	$1.092 \cdot 10^{-11}$	$1.092 \cdot 10^{-11}$	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	-0.2098	-0.2098	0	0.0296	0.0296	0
cHDD	-0.04405	-0.04405	0	0.0003338	0.0003338	0
cHW	-0.009597	-0.009597	0	0.009664	0.009664	0
cHWB	0.1725	0.1725	0	0.01801	0.01801	0
cHl3	-0.05326	-0.05326	0	0.001614	0.001614	0
cll1	0.02663	0.02663	0	0.0004036	0.0004036	0
cuBRe	0.8502	0.8502	0	1.015	1.015	0
cuHRe	-0.1762	-0.1762	0	0.005341	0.005341	0
cuWRe	0.4693	0.4693	0	0.3093	0.3093	0
sm	0	0	0	0.4393	0.4393	0



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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	0.0004697	0.0004697	0	0.004896	0.004896	0
cHDD	$-7.465 \cdot 10^{-6}$	$-7.465 \cdot 10^{-6}$	0	$2.314 \cdot 10^{-6}$	$2.314 \cdot 10^{-6}$	0
cHW	0.002337	0.002337	0	0.01217	0.01217	0
cHWB	0.0009535	0.0009535	0	0.003487	0.003487	0
cHe	-0.009121	-0.009121	0	0.07118	0.07118	0
cHl1	0.02165	0.02165	0	0.1481	0.1481	0
cHl3	0.01023	0.01023	0	0.06836	0.06836	0
ceBRe	$-3.428 \cdot 10^{-10}$	$-3.428 \cdot 10^{-10}$	0	$2.333 \cdot 10^{-8}$	$2.333 \cdot 10^{-8}$	0
ceHRe	$-4.378 \cdot 10^{-9}$	$-4.378 \cdot 10^{-9}$	0	$7.643 \cdot 10^{-9}$	$7.643 \cdot 10^{-9}$	0
ceWRe	$-6.21 \cdot 10^{-10}$	$-6.21 \cdot 10^{-10}$	0	$3.159 \cdot 10^{-8}$	$3.159 \cdot 10^{-8}$	0
cll1	$8.873 \cdot 10^{-5}$	$8.873 \cdot 10^{-5}$	0	$7.352 \cdot 10^{-6}$	$7.352 \cdot 10^{-6}$	0
sm	0	0	0	0.0006726	0.0006726	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	0.001061	0.001061	0	0.0009033	0.0009033	0
cHDD	$1.201 \cdot 10^{-19}$	$1.201 \cdot 10^{-19}$	0	$8.626 \cdot 10^{-35}$	$8.626 \cdot 10^{-35}$	0
cHW	0.002734	0.002734	0	0.00764	0.00764	0
cHWB	0.001922	0.001922	0	0.002964	0.002964	0
cHl1	-0.05393	-0.05393	0	0.1966	0.1966	0
cHl3	0.0809	0.0809	0	0.29	0.29	0
cll1	0.000684	0.000684	0	$2.073 \cdot 10^{-5}$	$2.073 \cdot 10^{-5}$	0
sm	0	0	0	0.005642	0.005642	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	0.0008327	0.0008327	0	0.001021	0.001021	0
cHDD	-0.0001872	-0.0001872	0	$1.074 \cdot 10^{-5}$	$1.074 \cdot 10^{-5}$	0
cHW	0.006016	0.006016	0	0.01998	0.01998	0
cHWB	0.001516	0.001516	0	0.003371	0.003371	0
cHd	-0.04361	-0.04361	0	1.05	1.05	0
cHl3	-0.00423	-0.00423	0	0.0003311	0.0003311	0
cHq1	0.2419	0.2419	0	1.05	1.05	0
cHq3	0.2403	0.2403	0	1.043	1.043	0
cdBRe	$-1.684 \cdot 10^{-5}$	$-1.684 \cdot 10^{-5}$	0	0.0002763	0.0002763	0
cdHRe	$8.707 \cdot 10^{-7}$	$8.707 \cdot 10^{-7}$	0	$3.522 \cdot 10^{-5}$	$3.522 \cdot 10^{-5}$	0
cdWRe	$-3.05 \cdot 10^{-5}$	$-3.05 \cdot 10^{-5}$	0	0.0009066	0.0009066	0
cll1	0.002115	0.002115	0	$8.276 \cdot 10^{-5}$	$8.276 \cdot 10^{-5}$	0
sm	0	0	0	0.01437	0.01437	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	0.001543	0.001543	0	0.001871	0.001871	0
cHDD	$-4.048 \cdot 10^{-5}$	$-4.048 \cdot 10^{-5}$	0	$4.04 \cdot 10^{-7}$	$4.04 \cdot 10^{-7}$	0
cHW	0.006469	0.006469	0	0.02137	0.02137	0
cHWB	0.004244	0.004244	0	0.006114	0.006114	0
cHd	-0.009821	-0.009821	0	0.2299	0.2299	0
cHl3	-0.003958	-0.003958	0	0.0003085	0.0003085	0
cHq1	0.05325	0.05325	0	0.2299	0.2299	0

cHq3	0.2254	0.2254	0	0.9734	0.9734	0
cdBRe	$-8.345 \cdot 10^{-9}$	$-8.345 \cdot 10^{-9}$	0	$1.272 \cdot 10^{-7}$	$1.272 \cdot 10^{-7}$	0
cdHRe	$-6.912 \cdot 10^{-8}$	$-6.912 \cdot 10^{-8}$	0	$1.958 \cdot 10^{-8}$	$1.958 \cdot 10^{-8}$	0
cdWRe	$-1.512 \cdot 10^{-8}$	$-1.512 \cdot 10^{-8}$	0	$4.173 \cdot 10^{-7}$	$4.173 \cdot 10^{-7}$	0
c111	0.001979	0.001979	0	$7.712 \cdot 10^{-5}$	$7.712 \cdot 10^{-5}$	0
sm	0	0	0	0.0135	0.0135	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	-0.02414	-0.02414	0	0.007845	0.007845	0
cHDD	-0.08826	-0.08826	0	0.01344	0.01344	0
cHW	-0.1344	-0.1344	0	0.03934	0.03934	0
cHWB	-0.1953	-0.1953	0	0.01982	0.01982	0
cH13	-1.263	-1.263	0	0.08581	0.08581	0
cHq1	1.596	1.596	0	0.2953	0.2953	0
cHq3	-1.944	-1.944	0	0.5842	0.5842	0
cHu	-1.538	-1.538	0	0.2953	0.2953	0
c111	0.6316	0.6316	0	0.02145	0.02145	0
cuBRe	-0.1316	-0.1316	0	0.2625	0.2625	0
cuHRe	-0.1342	-0.1342	0	0.04811	0.04811	0
cuWRe	0.2384	0.2384	0	0.8614	0.8614	0
sm	0	0	0	5.024	5.024	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	0.0004304	0.0004304	0	0.00361	0.00361	0
cHDD	-0.0001927	-0.0001927	0	$6.937 \cdot 10^{-6}$	$6.937 \cdot 10^{-6}$	0
cHW	0.007589	0.007589	0	0.03068	0.03068	0
cHWB	0.0008979	0.0008979	0	0.003766	0.003766	0
cHl3	-0.001715	-0.001715	0	0.000184	0.000184	0
cHq1	-0.1889	-0.1889	0	1	1	0
cHq3	0.09593	0.09593	0	0.5079	0.5079	0
cHu	0.08544	0.08544	0	1	1	0
c1l1	0.0008573	0.0008573	0	$4.601 \cdot 10^{-5}$	$4.601 \cdot 10^{-5}$	0
cuBRe	$2.466 \cdot 10^{-12}$	$2.466 \cdot 10^{-12}$	0	$7.059 \cdot 10^{-11}$	$7.059 \cdot 10^{-11}$	0
cuHRe	$1.627 \cdot 10^{-12}$	$1.627 \cdot 10^{-12}$	0	$9.363 \cdot 10^{-12}$	$9.363 \cdot 10^{-12}$	0
cuWRe	$-4.467 \cdot 10^{-12}$	$-4.467 \cdot 10^{-12}$	0	$2.316 \cdot 10^{-10}$	$2.316 \cdot 10^{-10}$	0
sm	0	0	0	0.005457	0.005457	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cH	$2.519 \cdot 10^{-9}$	$2.519 \cdot 10^{-9}$	0	$6.958 \cdot 10^{-10}$	$6.958 \cdot 10^{-10}$	0
cHB	$-2.956 \cdot 10^{-8}$	$-2.956 \cdot 10^{-8}$	0	$1.331 \cdot 10^{-10}$	$1.331 \cdot 10^{-10}$	0
cHDD	$-5.323 \cdot 10^{-6}$	$-5.323 \cdot 10^{-6}$	0	$5.068 \cdot 10^{-7}$	$5.068 \cdot 10^{-7}$	0
cHW	$-2.117 \cdot 10^{-6}$	$-2.117 \cdot 10^{-6}$	0	$1.279 \cdot 10^{-6}$	$1.279 \cdot 10^{-6}$	0
cHWB	$-1.464 \cdot 10^{-5}$	$-1.464 \cdot 10^{-5}$	0	$2.71 \cdot 10^{-6}$	$2.71 \cdot 10^{-6}$	0
cHd	$-1.796 \cdot 10^{-8}$	$-1.796 \cdot 10^{-8}$	0	$1.646 \cdot 10^{-7}$	$1.646 \cdot 10^{-7}$	0
cHl3	$-1.128 \cdot 10^{-5}$	$-1.128 \cdot 10^{-5}$	0	$1.937 \cdot 10^{-6}$	$1.937 \cdot 10^{-6}$	0
cHq1	$1.523 \cdot 10^{-6}$	$1.523 \cdot 10^{-6}$	0	$1.645 \cdot 10^{-7}$	$1.645 \cdot 10^{-7}$	0
cHq3	$-8.42 \cdot 10^{-6}$	$-8.42 \cdot 10^{-6}$	0	$2.482 \cdot 10^{-6}$	$2.482 \cdot 10^{-6}$	0
cHudRe	$-2.548 \cdot 10^{-9}$	$-2.548 \cdot 10^{-9}$	0	$3.096 \cdot 10^{-10}$	$3.096 \cdot 10^{-10}$	0
cW	$-4.789 \cdot 10^{-6}$	$-4.789 \cdot 10^{-6}$	0	$3.937 \cdot 10^{-6}$	$3.937 \cdot 10^{-6}$	0

cdBRe	$3.633 \cdot 10^{-10}$	$3.633 \cdot 10^{-10}$	0	$3.2 \cdot 10^{-12}$	$3.2 \cdot 10^{-12}$	0
cdHRe	$6.525 \cdot 10^{-10}$	$6.525 \cdot 10^{-10}$	0	$1.624 \cdot 10^{-10}$	$1.624 \cdot 10^{-10}$	0
cdWRe	$5.338 \cdot 10^{-9}$	$5.338 \cdot 10^{-9}$	0	$1.809 \cdot 10^{-9}$	$1.809 \cdot 10^{-9}$	0
c111	$4.111 \cdot 10^{-6}$	$4.111 \cdot 10^{-6}$	0	$3.517 \cdot 10^{-7}$	$3.517 \cdot 10^{-7}$	0
cuHRe	$1.897 \cdot 10^{-6}$	$1.897 \cdot 10^{-6}$	0	$1.673 \cdot 10^{-7}$	$1.673 \cdot 10^{-7}$	0
cuWRe	$-1.157 \cdot 10^{-6}$	$-1.157 \cdot 10^{-6}$	0	$2.109 \cdot 10^{-6}$	$2.109 \cdot 10^{-6}$	0
sm	0	0	0	$1.386 \cdot 10^{-5}$	$1.386 \cdot 10^{-5}$	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	$1.049 \cdot 10^{-11}$	$1.049 \cdot 10^{-11}$	0	$5.692 \cdot 10^{-12}$	$5.692 \cdot 10^{-12}$	0
cHB	$5.743 \cdot 10^{-9}$	$5.743 \cdot 10^{-9}$	0	$4.845 \cdot 10^{-10}$	$4.845 \cdot 10^{-10}$	0
cHDD	$-1.561 \cdot 10^{-7}$	$-1.561 \cdot 10^{-7}$	0	$1.353 \cdot 10^{-8}$	$1.353 \cdot 10^{-8}$	0
cHW	$-1.317 \cdot 10^{-7}$	$-1.317 \cdot 10^{-7}$	0	$7.121 \cdot 10^{-8}$	$7.121 \cdot 10^{-8}$	0
cHWB	$-3.051 \cdot 10^{-7}$	$-3.051 \cdot 10^{-7}$	0	$1.084 \cdot 10^{-7}$	$1.084 \cdot 10^{-7}$	0
cH13	$-5.622 \cdot 10^{-7}$	$-5.622 \cdot 10^{-7}$	0	$9.423 \cdot 10^{-8}$	$9.423 \cdot 10^{-8}$	0
cHq1	$-1.063 \cdot 10^{-7}$	$-1.063 \cdot 10^{-7}$	0	$1.66 \cdot 10^{-7}$	$1.66 \cdot 10^{-7}$	0
cHq3	$-2.534 \cdot 10^{-7}$	$-2.534 \cdot 10^{-7}$	0	$1.098 \cdot 10^{-6}$	$1.098 \cdot 10^{-6}$	0
cHu	$3.7 \cdot 10^{-8}$	$3.7 \cdot 10^{-8}$	0	$1.662 \cdot 10^{-7}$	$1.662 \cdot 10^{-7}$	0
cHudRe	$-3.42 \cdot 10^{-17}$	$-3.42 \cdot 10^{-17}$	0	$3.326 \cdot 10^{-24}$	$3.326 \cdot 10^{-24}$	0
cW	$-7.023 \cdot 10^{-8}$	$-7.023 \cdot 10^{-8}$	0	$6.06 \cdot 10^{-7}$	$6.06 \cdot 10^{-7}$	0
cdHRe	$5.019 \cdot 10^{-14}$	$5.019 \cdot 10^{-14}$	0	$1.728 \cdot 10^{-21}$	$1.728 \cdot 10^{-21}$	0
cdWRe	$-1.141 \cdot 10^{-13}$	$-1.141 \cdot 10^{-13}$	0	$3.783 \cdot 10^{-19}$	$3.783 \cdot 10^{-19}$	0
c111	$2.13 \cdot 10^{-7}$	$2.13 \cdot 10^{-7}$	0	$1.769 \cdot 10^{-8}$	$1.769 \cdot 10^{-8}$	0
cuBRe	$-6.204 \cdot 10^{-12}$	$-6.204 \cdot 10^{-12}$	0	$4.154 \cdot 10^{-13}$	$4.154 \cdot 10^{-13}$	0
cuHRe	$-1.159 \cdot 10^{-11}$	$-1.159 \cdot 10^{-11}$	0	$4.605 \cdot 10^{-12}$	$4.605 \cdot 10^{-12}$	0
cuWRe	$8.495 \cdot 10^{-11}$	$8.495 \cdot 10^{-11}$	0	$1.277 \cdot 10^{-10}$	$1.277 \cdot 10^{-10}$	0

sm	0	0	0	$7.052 \cdot 10^{-7}$	$7.052 \cdot 10^{-7}$	0
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#### 1.40 $W^+W^- \rightarrow H d \bar{d}$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cH	$2.319 \cdot 10^{-17}$	$2.319 \cdot 10^{-17}$	0	$6.719 \cdot 10^{-17}$	$6.719 \cdot 10^{-17}$	0
cHB	$-8.157 \cdot 10^{-9}$	$-8.157 \cdot 10^{-9}$	0	$1.864 \cdot 10^{-10}$	$1.864 \cdot 10^{-10}$	0
cHDD	$-1.814 \cdot 10^{-7}$	$-1.814 \cdot 10^{-7}$	0	$1.573 \cdot 10^{-8}$	$1.573 \cdot 10^{-8}$	0
cHW	$-1.07 \cdot 10^{-7}$	$-1.07 \cdot 10^{-7}$	0	$2.938 \cdot 10^{-8}$	$2.938 \cdot 10^{-8}$	0
cHWB	$-4.366 \cdot 10^{-7}$	$-4.366 \cdot 10^{-7}$	0	$7.98 \cdot 10^{-8}$	$7.98 \cdot 10^{-8}$	0
cHd	$-5.438 \cdot 10^{-8}$	$-5.438 \cdot 10^{-8}$	0	$8.834 \cdot 10^{-7}$	$8.834 \cdot 10^{-7}$	0
cHl3	$-4.522 \cdot 10^{-7}$	$-4.522 \cdot 10^{-7}$	0	$7.82 \cdot 10^{-8}$	$7.82 \cdot 10^{-8}$	0
cHq1	$9.073 \cdot 10^{-7}$	$9.073 \cdot 10^{-7}$	0	$8.825 \cdot 10^{-7}$	$8.825 \cdot 10^{-7}$	0
cHq3	$-2.778 \cdot 10^{-7}$	$-2.778 \cdot 10^{-7}$	0	$7.54 \cdot 10^{-7}$	$7.54 \cdot 10^{-7}$	0
cHudRe	$-6.625 \cdot 10^{-26}$	$-6.625 \cdot 10^{-26}$	0	$4.79 \cdot 10^{-36}$	$4.79 \cdot 10^{-36}$	0
cW	$-1.58 \cdot 10^{-8}$	$-1.58 \cdot 10^{-8}$	0	$4.635 \cdot 10^{-7}$	$4.635 \cdot 10^{-7}$	0
cdBRe	$1.11 \cdot 10^{-16}$	$1.11 \cdot 10^{-16}$	0	$5.416 \cdot 10^{-18}$	$5.416 \cdot 10^{-18}$	0
cdHRe	$2.161 \cdot 10^{-16}$	$2.161 \cdot 10^{-16}$	0	$6.28 \cdot 10^{-17}$	$6.28 \cdot 10^{-17}$	0
cdWRe	$4.433 \cdot 10^{-16}$	$4.433 \cdot 10^{-16}$	0	$1.795 \cdot 10^{-15}$	$1.795 \cdot 10^{-15}$	0
cll1	$1.633 \cdot 10^{-7}$	$1.633 \cdot 10^{-7}$	0	$1.42 \cdot 10^{-8}$	$1.42 \cdot 10^{-8}$	0
cuHRe	$7.24 \cdot 10^{-17}$	$7.24 \cdot 10^{-17}$	0	$3.7 \cdot 10^{-27}$	$3.7 \cdot 10^{-27}$	0
cuWRe	$-5.042 \cdot 10^{-17}$	$-5.042 \cdot 10^{-17}$	0	$7.77 \cdot 10^{-26}$	$7.77 \cdot 10^{-26}$	0
sm	0	0	0	$5.247 \cdot 10^{-7}$	$5.247 \cdot 10^{-7}$	0

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

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

cH	$1.377 \cdot 10^{-7}$	$1.377 \cdot 10^{-7}$	0	$1.065 \cdot 10^{-7}$	$1.065 \cdot 10^{-7}$	0
cHB	$-1.303 \cdot 10^{-8}$	$-1.303 \cdot 10^{-8}$	0	$3.701 \cdot 10^{-10}$	$3.701 \cdot 10^{-10}$	0
cHDD	$-1.836 \cdot 10^{-6}$	$-1.836 \cdot 10^{-6}$	0	$2.352 \cdot 10^{-7}$	$2.352 \cdot 10^{-7}$	0
cHW	$4.147 \cdot 10^{-6}$	$4.147 \cdot 10^{-6}$	0	$1.885 \cdot 10^{-5}$	$1.885 \cdot 10^{-5}$	0
cHWB	$-5.86 \cdot 10^{-6}$	$-5.86 \cdot 10^{-6}$	0	$1.232 \cdot 10^{-6}$	$1.232 \cdot 10^{-6}$	0
cHl3	-0.0002339	-0.0002339	0	$4.304 \cdot 10^{-5}$	$4.304 \cdot 10^{-5}$	0
cHq1	$6.99 \cdot 10^{-7}$	$6.99 \cdot 10^{-7}$	0	$1.657 \cdot 10^{-6}$	$1.657 \cdot 10^{-6}$	0
cHq3	$9.659 \cdot 10^{-5}$	$9.659 \cdot 10^{-5}$	0	$2.487 \cdot 10^{-5}$	$2.487 \cdot 10^{-5}$	0
cHu	$-1.927 \cdot 10^{-6}$	$-1.927 \cdot 10^{-6}$	0	$1.657 \cdot 10^{-6}$	$1.657 \cdot 10^{-6}$	0
cHudRe	$6.252 \cdot 10^{-10}$	$6.252 \cdot 10^{-10}$	0	$4.268 \cdot 10^{-13}$	$4.268 \cdot 10^{-13}$	0
cW	$-2.858 \cdot 10^{-7}$	$-2.858 \cdot 10^{-7}$	0	$7.257 \cdot 10^{-6}$	$7.257 \cdot 10^{-6}$	0
cdHRe	$7.532 \cdot 10^{-11}$	$7.532 \cdot 10^{-11}$	0	$5.212 \cdot 10^{-15}$	$5.212 \cdot 10^{-15}$	0
cdWRe	$-6.687 \cdot 10^{-9}$	$-6.687 \cdot 10^{-9}$	0	$1.214 \cdot 10^{-11}$	$1.214 \cdot 10^{-11}$	0
c111	$7.864 \cdot 10^{-5}$	$7.864 \cdot 10^{-5}$	0	$7.394 \cdot 10^{-6}$	$7.394 \cdot 10^{-6}$	0
cuBRe	$1.939 \cdot 10^{-7}$	$1.939 \cdot 10^{-7}$	0	$5.272 \cdot 10^{-8}$	$5.272 \cdot 10^{-8}$	0
cuHRe	$3.286 \cdot 10^{-7}$	$3.286 \cdot 10^{-7}$	0	$3.322 \cdot 10^{-7}$	$3.322 \cdot 10^{-7}$	0
cuWRe	$-1.187 \cdot 10^{-6}$	$-1.187 \cdot 10^{-6}$	0	$2.818 \cdot 10^{-5}$	$2.818 \cdot 10^{-5}$	0
sm	0	0	0	0.0002471	0.0002471	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	-9.402	-9.402	0	0.5094	0.5094	0
cHW	0.1966	0.1966	0	2.216	2.216	0
cHWB	-32.98	-32.98	0	5.162	5.162	0
cHl3	-17.23	-17.23	0	2.516	2.516	0
cW	0.1099	0.1099	0	7.187	7.187	0
c111	6.389	6.389	0	0.4648	0.4648	0

sm	0	0	0	24.37	24.37	0
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### 1.43 $W^+W^- \rightarrow \gamma\gamma$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	-0.04599	-0.04599	0	0.2695	0.2695	0
cHW	-0.009765	-0.009765	0	0.02503	0.02503	0
cHWB	-0.007545	-0.007545	0	0.09721	0.09721	0
cW	0.004562	0.004562	0	0.6526	0.6526	0
sm	0	0	0	2.914	2.914	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	$-1.331 \cdot 10^{-7}$	$-1.331 \cdot 10^{-7}$	0	$6.739 \cdot 10^{-7}$	$6.739 \cdot 10^{-7}$	0
cHW	$4.641 \cdot 10^{-9}$	$4.641 \cdot 10^{-9}$	0	$2.698 \cdot 10^{-9}$	$2.698 \cdot 10^{-9}$	0
cHWB	$1.994 \cdot 10^{-6}$	$1.994 \cdot 10^{-6}$	0	$3.62 \cdot 10^{-7}$	$3.62 \cdot 10^{-7}$	0
cW	$1.326 \cdot 10^{-8}$	$1.326 \cdot 10^{-8}$	0	$8.925 \cdot 10^{-7}$	$8.925 \cdot 10^{-7}$	0
sm	0	0	0	$3.507 \cdot 10^{-7}$	$3.507 \cdot 10^{-7}$	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0005337	-0.0005337	0	$1.163 \cdot 10^{-5}$	$1.163 \cdot 10^{-5}$	0
cHWB	-0.001178	-0.001178	0	$5.669 \cdot 10^{-5}$	$5.669 \cdot 10^{-5}$	0



cHl3	-0.01428	-0.01428	0	0.001245	0.001245	0
cHq3	0.009932	0.009932	0	0.0006021	0.0006021	0
cHudRe	$-4.67 \cdot 10^{-8}$	$-4.67 \cdot 10^{-8}$	0	$9.712 \cdot 10^{-9}$	$9.712 \cdot 10^{-9}$	0
cdWRe	$-9.237 \cdot 10^{-6}$	$-9.237 \cdot 10^{-6}$	0	$1.261 \cdot 10^{-6}$	$1.261 \cdot 10^{-6}$	0
c111	0.007145	0.007145	0	0.0003115	0.0003115	0
cqq11	0.2581	0.2581	0	3.659	3.659	0
cqq3	1.548	1.548	0	14.64	14.64	0
cqq31	-0.2581	-0.2581	0	3.659	3.659	0
cquqd11Re	$-7.656 \cdot 10^{-11}$	$-7.656 \cdot 10^{-11}$	0	$7.368 \cdot 10^{-11}$	$7.368 \cdot 10^{-11}$	0
cquqd1Re	$-3.549 \cdot 10^{-10}$	$-3.549 \cdot 10^{-10}$	0	$1.771 \cdot 10^{-10}$	$1.771 \cdot 10^{-10}$	0
cquqd81Re	$-8.943 \cdot 10^{-12}$	$-8.943 \cdot 10^{-12}$	0	$1.268 \cdot 10^{-13}$	$1.268 \cdot 10^{-13}$	0
cquqd8Re	$5.745 \cdot 10^{-27}$	$5.745 \cdot 10^{-27}$	0	$3.936 \cdot 10^{-11}$	$3.936 \cdot 10^{-11}$	0
cuWRe	-0.005942	-0.005942	0	0.01192	0.01192	0
sm	0	0	0	0.04096	0.04096	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	-0.06969	-0.06969	0	0.1722	0.1722	0
cHDD	-0.1876	-0.1876	0	0.002668	0.002668	0
cHW	0.02705	0.02705	0	0.02045	0.02045	0
cHWB	0.01191	0.01191	0	0.5315	0.5315	0
cHl3	-0.05656	-0.05656	0	0.003217	0.003217	0
cW	0.00759	0.00759	0	0.615	0.615	0
c111	0.02802	0.02802	0	0.0007971	0.0007971	0
sm	0	0	0	0.2467	0.2467	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0004668	-0.0004668	0	$1.372 \cdot 10^{-5}$	$1.372 \cdot 10^{-5}$	0
cHWB	-0.0004788	-0.0004788	0	0.0002372	0.0002372	0
cHe	0.0002101	0.0002101	0	$2.432 \cdot 10^{-5}$	$2.432 \cdot 10^{-5}$	0
cH11	0.001603	0.001603	0	$5.422 \cdot 10^{-5}$	$5.422 \cdot 10^{-5}$	0
cH13	-0.000101	-0.000101	0	$1.415 \cdot 10^{-5}$	$1.415 \cdot 10^{-5}$	0
ceBRe	$1.619 \cdot 10^{-6}$	$1.619 \cdot 10^{-6}$	0	$6.103 \cdot 10^{-7}$	$6.103 \cdot 10^{-7}$	0
ceHRe	$-2.436 \cdot 10^{-12}$	$-2.436 \cdot 10^{-12}$	0	$1.455 \cdot 10^{-13}$	$1.455 \cdot 10^{-13}$	0
ceWRe	$-7.421 \cdot 10^{-7}$	$-7.421 \cdot 10^{-7}$	0	$6.185 \cdot 10^{-7}$	$6.185 \cdot 10^{-7}$	0
cee	0.06607	0.06607	0	0.5146	0.5146	0
cle	0.1049	0.1049	0	0.8226	0.8226	0
c11	0.3663	0.3663	0	2.664	2.664	0
c111	0.07076	0.07076	0	0.5189	0.5189	0
sm	0	0	0	0.007899	0.007899	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$-2.314 \cdot 10^{-5}$	$-2.314 \cdot 10^{-5}$	0	$3.507 \cdot 10^{-7}$	$3.507 \cdot 10^{-7}$	0
cHWB	$-2.943 \cdot 10^{-22}$	$-2.943 \cdot 10^{-22}$	0	$2.939 \cdot 10^{-39}$	$2.939 \cdot 10^{-39}$	0
cH11	$-9.256 \cdot 10^{-5}$	$-9.256 \cdot 10^{-5}$	0	$5.611 \cdot 10^{-6}$	$5.611 \cdot 10^{-6}$	0
cH13	$1.342 \cdot 10^{-19}$	$1.342 \cdot 10^{-19}$	0	$3.056 \cdot 10^{-36}$	$3.056 \cdot 10^{-36}$	0
c11	-0.05004	-0.05004	0	1.64	1.64	0
c111	-0.1296	-0.1296	0	2.769	2.769	0
sm	0	0	0	0.001516	0.001516	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0007142	-0.0007142	0	$1.082 \cdot 10^{-5}$	$1.082 \cdot 10^{-5}$	0
cHWB	$2.821 \cdot 10^{-19}$	$2.821 \cdot 10^{-19}$	0	$1.704 \cdot 10^{-36}$	$1.704 \cdot 10^{-36}$	0
cHl1	-0.002857	-0.002857	0	0.0001732	0.0001732	0
cHl3	$2.824 \cdot 10^{-20}$	$2.824 \cdot 10^{-20}$	0	$4.349 \cdot 10^{-37}$	$4.349 \cdot 10^{-37}$	0
c11	0.3407	0.3407	0	2.463	2.463	0
c111	0.014	0.014	0	0.1016	0.1016	0
sm	0	0	0	0.000482	0.000482	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHB	$-5.202 \cdot 10^{-7}$	$-5.202 \cdot 10^{-7}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0
cHW	$-2.102 \cdot 10^{-7}$	$-2.102 \cdot 10^{-7}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
cHWB	$2.872 \cdot 10^{-7}$	$2.872 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
cdBRe	$3.241 \cdot 10^{-7}$	$3.241 \cdot 10^{-7}$	0	$1.169 \cdot 10^{-6}$	$1.169 \cdot 10^{-6}$	0
cdWRe	$-1.789 \cdot 10^{-7}$	$-1.789 \cdot 10^{-7}$	0	$3.563 \cdot 10^{-7}$	$3.563 \cdot 10^{-7}$	0
sm	0	0	0	0.0001973	0.0001973	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0001967	-0.0001967	0	$5.301 \cdot 10^{-6}$	$5.301 \cdot 10^{-6}$	0
cHWB	-0.0005093	-0.0005093	0	$4.736 \cdot 10^{-5}$	$4.736 \cdot 10^{-5}$	0

cHd	$-7.533 \cdot 10^{-5}$	$-7.533 \cdot 10^{-5}$	0	$3.721 \cdot 10^{-6}$	$3.721 \cdot 10^{-6}$	0
cHe	$-3.898 \cdot 10^{-5}$	$-3.898 \cdot 10^{-5}$	0	$5.236 \cdot 10^{-6}$	$5.236 \cdot 10^{-6}$	0
cHl1	0.0003089	0.0003089	0	$1.155 \cdot 10^{-5}$	$1.155 \cdot 10^{-5}$	0
cHl3	-0.0001336	-0.0001336	0	$1.001 \cdot 10^{-5}$	$1.001 \cdot 10^{-5}$	0
cHq1	0.0001969	0.0001969	0	$4.74 \cdot 10^{-6}$	$4.74 \cdot 10^{-6}$	0
cHq3	$7.38 \cdot 10^{-5}$	$7.38 \cdot 10^{-5}$	0	$2.893 \cdot 10^{-6}$	$2.893 \cdot 10^{-6}$	0
cdBRe	$5.669 \cdot 10^{-7}$	$5.669 \cdot 10^{-7}$	0	$1.847 \cdot 10^{-6}$	$1.847 \cdot 10^{-6}$	0
cdHRe	$-2.226 \cdot 10^{-12}$	$-2.226 \cdot 10^{-12}$	0	$6.71 \cdot 10^{-14}$	$6.71 \cdot 10^{-14}$	0
cdWRe	$-8.213 \cdot 10^{-7}$	$-8.213 \cdot 10^{-7}$	0	$1.221 \cdot 10^{-6}$	$1.221 \cdot 10^{-6}$	0
ceBRe	$3.112 \cdot 10^{-12}$	$3.112 \cdot 10^{-12}$	0	$7.533 \cdot 10^{-11}$	$7.533 \cdot 10^{-11}$	0
ceHRe	$-2.226 \cdot 10^{-12}$	$-2.226 \cdot 10^{-12}$	0	$6.71 \cdot 10^{-14}$	$6.71 \cdot 10^{-14}$	0
ceWRe	$-2.94 \cdot 10^{-10}$	$-2.94 \cdot 10^{-10}$	0	$7.844 \cdot 10^{-10}$	$7.844 \cdot 10^{-10}$	0
ced	0.005682	0.005682	0	0.06638	0.06638	0
cld	0.004348	0.004348	0	0.1022	0.1022	0
cledqRe	$-7.13 \cdot 10^{-11}$	$-7.13 \cdot 10^{-11}$	0	$3.538 \cdot 10^{-11}$	$3.538 \cdot 10^{-11}$	0
cll1	0.0001086	0.0001086	0	$6.182 \cdot 10^{-6}$	$6.182 \cdot 10^{-6}$	0
clq1	0.0437	0.0437	0	0.2301	0.2301	0
clq3	0.01261	0.01261	0	0.06638	0.06638	0
cqe	-0.0004155	-0.0004155	0	0.009537	0.009537	0
sm	0	0	0	0.0008151	0.0008151	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	-0.0003144	-0.0003144	0	$6.029 \cdot 10^{-6}$	$6.029 \cdot 10^{-6}$	0
cHWB	-0.0003114	-0.0003114	0	$5.938 \cdot 10^{-6}$	$5.938 \cdot 10^{-6}$	0
cHd	$-2.951 \cdot 10^{-7}$	$-2.951 \cdot 10^{-7}$	0	$5.966 \cdot 10^{-8}$	$5.966 \cdot 10^{-8}$	0
cHl1	-0.000497	-0.000497	0	$1.506 \cdot 10^{-5}$	$1.506 \cdot 10^{-5}$	0

cH13	-0.0001609	-0.0001609	0	$8.562 \cdot 10^{-6}$	$8.562 \cdot 10^{-6}$	0
cHq1	0.0005886	0.0005886	0	$2.113 \cdot 10^{-5}$	$2.113 \cdot 10^{-5}$	0
cHq3	0.0001327	0.0001327	0	$4.766 \cdot 10^{-6}$	$4.766 \cdot 10^{-6}$	0
cdBRe	$-3.434 \cdot 10^{-7}$	$-3.434 \cdot 10^{-7}$	0	$3.758 \cdot 10^{-7}$	$3.758 \cdot 10^{-7}$	0
cdWRe	$-6.221 \cdot 10^{-7}$	$-6.221 \cdot 10^{-7}$	0	$1.233 \cdot 10^{-6}$	$1.233 \cdot 10^{-6}$	0
cld	0.004327	0.004327	0	0.1005	0.1005	0
c111	0.0001393	0.0001393	0	$5.472 \cdot 10^{-6}$	$5.472 \cdot 10^{-6}$	0
clq1	-0.07019	-0.07019	0	0.3006	0.3006	0
clq3	0.01583	0.01583	0	0.06779	0.06779	0
sm	0	0	0	0.0009709	0.0009709	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	0.005538	0.005538	0	$2.178 \cdot 10^{-5}$	$2.178 \cdot 10^{-5}$	0
cHWB	0.007782	0.007782	0	0.0001421	0.0001421	0
cHd	0.003033	0.003033	0	0.0004473	0.0004473	0
cH13	0.0514	0.0514	0	0.001276	0.001276	0
cHq1	-0.01774	-0.01774	0	0.0002226	0.0002226	0
cHq3	-0.04144	-0.04144	0	0.0007929	0.0007929	0
cdBRe	$-9.798 \cdot 10^{-6}$	$-9.798 \cdot 10^{-6}$	0	$1.36 \cdot 10^{-5}$	$1.36 \cdot 10^{-5}$	0
cdGRe	-0.0005096	-0.0005096	0	0.00035	0.00035	0
cdHRe	0.0001187	0.0001187	0	$2.806 \cdot 10^{-9}$	$2.806 \cdot 10^{-9}$	0
cdWRe	$9.355 \cdot 10^{-5}$	$9.355 \cdot 10^{-5}$	0	$7.98 \cdot 10^{-5}$	$7.98 \cdot 10^{-5}$	0
cdd	-0.8064	-0.8064	0	2.907	2.907	0
cdd1	-0.8064	-0.8064	0	2.907	2.907	0
c111	-0.0257	-0.0257	0	0.000319	0.000319	0
cqd1	0.08049	0.08049	0	2.203	2.203	0

cqd8	-3.999	-3.999	0	0.4896	0.4896	0
cqq1	-3.169	-3.169	0	4.952	4.952	0
cqq11	-3.169	-3.169	0	4.952	4.952	0
cqq3	-3.169	-3.169	0	4.952	4.952	0
cqq31	-3.169	-3.169	0	4.952	4.952	0
sm	0	0	0	15.15	15.15	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.000458	-0.000458	0	$9.642 \cdot 10^{-6}$	$9.642 \cdot 10^{-6}$	0
cHWB	-0.0007276	-0.0007276	0	$2.865 \cdot 10^{-5}$	$2.865 \cdot 10^{-5}$	0
cHd	$-5.556 \cdot 10^{-5}$	$-5.556 \cdot 10^{-5}$	0	$1.352 \cdot 10^{-5}$	$1.352 \cdot 10^{-5}$	0
cHl3	-0.002628	-0.002628	0	0.0002212	0.0002212	0
cHq1	0.00143	0.00143	0	$9.256 \cdot 10^{-5}$	$9.256 \cdot 10^{-5}$	0
cHq3	0.002046	0.002046	0	0.0001323	0.0001323	0
cdBRe	$-5.749 \cdot 10^{-7}$	$-5.749 \cdot 10^{-7}$	0	$3.842 \cdot 10^{-7}$	$3.842 \cdot 10^{-7}$	0
cdGRe	-0.000112	-0.000112	0	$1.405 \cdot 10^{-5}$	$1.405 \cdot 10^{-5}$	0
cdHRe	$-2.601 \cdot 10^{-14}$	$-2.601 \cdot 10^{-14}$	0	$1.573 \cdot 10^{-15}$	$1.573 \cdot 10^{-15}$	0
cdWRe	$-3.996 \cdot 10^{-6}$	$-3.996 \cdot 10^{-6}$	0	$2.275 \cdot 10^{-6}$	$2.275 \cdot 10^{-6}$	0
cdd	0.02625	0.02625	0	1.84	1.84	0
cdd1	1.22	1.22	0	1.84	1.84	0
cll1	0.001314	0.001314	0	$5.529 \cdot 10^{-5}$	$5.529 \cdot 10^{-5}$	0
cqd1	-0.001023	-0.001023	0	0.07063	0.07063	0
cqd8	0.04653	0.04653	0	0.0157	0.0157	0
cqq1	0.2889	0.2889	0	2.638	2.638	0
cqq11	1.833	1.833	0	2.638	2.638	0
cqq3	0.2889	0.2889	0	2.638	2.638	0

cqq31	1.833	1.833	0	2.638	2.638	0
sm	0	0	0	0.6859	0.6859	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.07378	-0.07378	0	0.002856	0.002856	0
cHWB	-0.1728	-0.1728	0	0.01454	0.01454	0
cHd	$-9.401 \cdot 10^{-5}$	$-9.401 \cdot 10^{-5}$	0	$5.323 \cdot 10^{-6}$	$5.323 \cdot 10^{-6}$	0
cHl3	-0.01806	-0.01806	0	0.01014	0.01014	0
cHq1	-0.001162	-0.001162	0	$1.637 \cdot 10^{-6}$	$1.637 \cdot 10^{-6}$	0
cHq3	0.007431	0.007431	0	0.00436	0.00436	0
cHu	-0.0006719	-0.0006719	0	$3.645 \cdot 10^{-6}$	$3.645 \cdot 10^{-6}$	0
cHudRe	$2.723 \cdot 10^{-5}$	$2.723 \cdot 10^{-5}$	0	$1.893 \cdot 10^{-6}$	$1.893 \cdot 10^{-6}$	0
cdBRe	$5.899 \cdot 10^{-6}$	$5.899 \cdot 10^{-6}$	0	$1.904 \cdot 10^{-6}$	$1.904 \cdot 10^{-6}$	0
cdGRe	-0.0001065	-0.0001065	0	$2.142 \cdot 10^{-5}$	$2.142 \cdot 10^{-5}$	0
cdHRe	$-1.008 \cdot 10^{-5}$	$-1.008 \cdot 10^{-5}$	0	$4.739 \cdot 10^{-7}$	$4.739 \cdot 10^{-7}$	0
cdWRe	$-9.619 \cdot 10^{-5}$	$-9.619 \cdot 10^{-5}$	0	$3.176 \cdot 10^{-5}$	$3.176 \cdot 10^{-5}$	0
cll1	0.004444	0.004444	0	0.002191	0.002191	0
cqd1	-0.007418	-0.007418	0	0.399	0.399	0
cqd8	0.2823	0.2823	0	0.08867	0.08867	0
cqq1	-0.1485	-0.1485	0	0.5427	0.5427	0
cqq11	-0.1485	-0.1485	0	0.5427	0.5427	0
cqq3	0.4162	0.4162	0	1.99	1.99	0
cqq31	0.4162	0.4162	0	1.99	1.99	0
cqu1	-0.1033	-0.1033	0	0.04066	0.04066	0
cqu8	-0.08473	-0.08473	0	0.009036	0.009036	0
cquqd11Re	-0.0002704	-0.0002704	0	0.0003109	0.0003109	0

cquqd1Re	-0.0002704	-0.0002704	0	0.0003109	0.0003109	0
cquqd81Re	$8.316 \cdot 10^{-5}$	$8.316 \cdot 10^{-5}$	0	$5.916 \cdot 10^{-5}$	$5.916 \cdot 10^{-5}$	0
cquqd8Re	$8.316 \cdot 10^{-5}$	$8.316 \cdot 10^{-5}$	0	$5.916 \cdot 10^{-5}$	$5.916 \cdot 10^{-5}$	0
cuBRe	0.007725	0.007725	0	0.0008204	0.0008204	0
cuGRe	0.002312	0.002312	0	0.03	0.03	0
cuHRe	$-1.008 \cdot 10^{-5}$	$-1.008 \cdot 10^{-5}$	0	$4.739 \cdot 10^{-7}$	$4.739 \cdot 10^{-7}$	0
cuWRe	0.3018	0.3018	0	0.3709	0.3709	0
cud1	-0.008159	-0.008159	0	0.1357	0.1357	0
cud8	0.109	0.109	0	0.03015	0.03015	0
sm	0	0	0	0.3451	0.3451	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0001604	-0.0001604	0	$3.844 \cdot 10^{-6}$	$3.844 \cdot 10^{-6}$	0
cHWB	-0.0002965	-0.0002965	0	$3.437 \cdot 10^{-5}$	$3.437 \cdot 10^{-5}$	0
cHd	$1.427 \cdot 10^{-6}$	$1.427 \cdot 10^{-6}$	0	$1.249 \cdot 10^{-5}$	$1.249 \cdot 10^{-5}$	0
cHl3	-0.0004637	-0.0004637	0	$4.501 \cdot 10^{-5}$	$4.501 \cdot 10^{-5}$	0
cHq1	$-1.462 \cdot 10^{-5}$	$-1.462 \cdot 10^{-5}$	0	$3.188 \cdot 10^{-6}$	$3.188 \cdot 10^{-6}$	0
cHq3	0.0003584	0.0003584	0	$2.456 \cdot 10^{-5}$	$2.456 \cdot 10^{-5}$	0
cHu	$8.281 \cdot 10^{-5}$	$8.281 \cdot 10^{-5}$	0	$1.729 \cdot 10^{-5}$	$1.729 \cdot 10^{-5}$	0
cdBRe	$3.635 \cdot 10^{-7}$	$3.635 \cdot 10^{-7}$	0	$1.945 \cdot 10^{-6}$	$1.945 \cdot 10^{-6}$	0
cdGRe	-0.000112	-0.000112	0	$2.113 \cdot 10^{-5}$	$2.113 \cdot 10^{-5}$	0
cdHRe	$-2.779 \cdot 10^{-15}$	$-2.779 \cdot 10^{-15}$	0	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	0
cdWRe	$-1.868 \cdot 10^{-6}$	$-1.868 \cdot 10^{-6}$	0	$3.412 \cdot 10^{-6}$	$3.412 \cdot 10^{-6}$	0
c1l1	0.0002318	0.0002318	0	$1.125 \cdot 10^{-5}$	$1.125 \cdot 10^{-5}$	0
cqd1	-0.005792	-0.005792	0	0.4137	0.4137	0
cqd8	0.2724	0.2724	0	0.09194	0.09194	0



cqq1	-0.05206	-0.05206	0	0.5092	0.5092	0
cqq3	0.05206	0.05206	0	0.5092	0.5092	0
cqq31	0.636	0.636	0	2.037	2.037	0
cqu1	0.009862	0.009862	0	0.3391	0.3391	0
cqu8	0.2233	0.2233	0	0.07537	0.07537	0
cquqd11Re	$-6.305 \cdot 10^{-15}$	$-6.305 \cdot 10^{-15}$	0	$1.504 \cdot 10^{-14}$	$1.504 \cdot 10^{-14}$	0
cquqd1Re	$-8.948 \cdot 10^{-14}$	$-8.948 \cdot 10^{-14}$	0	$4.436 \cdot 10^{-14}$	$4.436 \cdot 10^{-14}$	0
cquqd81Re	$-2.77 \cdot 10^{-14}$	$-2.77 \cdot 10^{-14}$	0	$4.079 \cdot 10^{-15}$	$4.079 \cdot 10^{-15}$	0
cquqd8Re	$1.014 \cdot 10^{-15}$	$1.014 \cdot 10^{-15}$	0	$9.858 \cdot 10^{-15}$	$9.858 \cdot 10^{-15}$	0
cuBRe	$6.427 \cdot 10^{-15}$	$6.427 \cdot 10^{-15}$	0	$1.635 \cdot 10^{-13}$	$1.635 \cdot 10^{-13}$	0
cuGRe	$-2.992 \cdot 10^{-11}$	$-2.992 \cdot 10^{-11}$	0	$5.978 \cdot 10^{-12}$	$5.978 \cdot 10^{-12}$	0
cuHRe	$-2.779 \cdot 10^{-15}$	$-2.779 \cdot 10^{-15}$	0	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	0
cuWRe	$-4.172 \cdot 10^{-13}$	$-4.172 \cdot 10^{-13}$	0	$9.679 \cdot 10^{-13}$	$9.679 \cdot 10^{-13}$	0
cud1	-0.007264	-0.007264	0	0.1273	0.1273	0
cud8	0.08384	0.08384	0	0.02829	0.02829	0
sm	0	0	0	0.5294	0.5294	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	-0.001104	-0.001104	0	$2.407 \cdot 10^{-5}$	$2.407 \cdot 10^{-5}$	0
cHWB	-0.002437	-0.002437	0	0.0001173	0.0001173	0
cHl3	$-1.798 \cdot 10^{-5}$	$-1.798 \cdot 10^{-5}$	0	$1.023 \cdot 10^{-6}$	$1.023 \cdot 10^{-6}$	0
cHq3	$9.588 \cdot 10^{-6}$	$9.588 \cdot 10^{-6}$	0	$2.906 \cdot 10^{-7}$	$2.906 \cdot 10^{-7}$	0
cHudRe	$-1.557 \cdot 10^{-8}$	$-1.557 \cdot 10^{-8}$	0	$6.652 \cdot 10^{-11}$	$6.652 \cdot 10^{-11}$	0
cdWRe	$-2.836 \cdot 10^{-7}$	$-2.836 \cdot 10^{-7}$	0	$8.221 \cdot 10^{-7}$	$8.221 \cdot 10^{-7}$	0
ceWRe	$-5.243 \cdot 10^{-14}$	$-5.243 \cdot 10^{-14}$	0	$9.233 \cdot 10^{-15}$	$9.233 \cdot 10^{-15}$	0
cledqRe	$-8.478 \cdot 10^{-16}$	$-8.478 \cdot 10^{-16}$	0	$4.138 \cdot 10^{-16}$	$4.138 \cdot 10^{-16}$	0

clequ1Re	$1.406 \cdot 10^{-12}$	$1.406 \cdot 10^{-12}$	0	$7.068 \cdot 10^{-13}$	$7.068 \cdot 10^{-13}$	0
clequ3Re	$-4.583 \cdot 10^{-12}$	$-4.583 \cdot 10^{-12}$	0	$8.09 \cdot 10^{-12}$	$8.09 \cdot 10^{-12}$	0
cll1	$1.38 \cdot 10^{-5}$	$1.38 \cdot 10^{-5}$	0	$6.015 \cdot 10^{-7}$	$6.015 \cdot 10^{-7}$	0
clq3	0.001495	0.001495	0	0.007065	0.007065	0
cuWRe	-0.005057	-0.005057	0	0.001672	0.001672	0
sm	0	0	0	$7.908 \cdot 10^{-5}$	$7.908 \cdot 10^{-5}$	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	$-5.706 \cdot 10^{-5}$	$-5.706 \cdot 10^{-5}$	0	$1.623 \cdot 10^{-6}$	$1.623 \cdot 10^{-6}$	0
cHWB	-0.0001586	-0.0001586	0	$2.181 \cdot 10^{-5}$	$2.181 \cdot 10^{-5}$	0
cHe	$-1.998 \cdot 10^{-5}$	$-1.998 \cdot 10^{-5}$	0	$3.236 \cdot 10^{-6}$	$3.236 \cdot 10^{-6}$	0
cHl1	$7.892 \cdot 10^{-5}$	$7.892 \cdot 10^{-5}$	0	$3.107 \cdot 10^{-6}$	$3.107 \cdot 10^{-6}$	0
cHl3	-0.000177	-0.000177	0	$1.486 \cdot 10^{-5}$	$1.486 \cdot 10^{-5}$	0
cHq1	$-6.177 \cdot 10^{-5}$	$-6.177 \cdot 10^{-5}$	0	$2.908 \cdot 10^{-6}$	$2.908 \cdot 10^{-6}$	0
cHq3	$7.798 \cdot 10^{-5}$	$7.798 \cdot 10^{-5}$	0	$2.964 \cdot 10^{-6}$	$2.964 \cdot 10^{-6}$	0
cHu	$1.441 \cdot 10^{-5}$	$1.441 \cdot 10^{-5}$	0	$2.995 \cdot 10^{-6}$	$2.995 \cdot 10^{-6}$	0
ceBRe	$5.624 \cdot 10^{-10}$	$5.624 \cdot 10^{-10}$	0	$4.497 \cdot 10^{-10}$	$4.497 \cdot 10^{-10}$	0
ceHRe	$-2.045 \cdot 10^{-13}$	$-2.045 \cdot 10^{-13}$	0	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	0
ceWRe	$-6.761 \cdot 10^{-10}$	$-6.761 \cdot 10^{-10}$	0	$7.91 \cdot 10^{-10}$	$7.91 \cdot 10^{-10}$	0
ceu	-0.0127	-0.0127	0	0.0742	0.0742	0
clequ1Re	$6.587 \cdot 10^{-12}$	$6.587 \cdot 10^{-12}$	0	$3.266 \cdot 10^{-12}$	$3.266 \cdot 10^{-12}$	0
clequ3Re	$2.104 \cdot 10^{-12}$	$2.104 \cdot 10^{-12}$	0	$1.665 \cdot 10^{-13}$	$1.665 \cdot 10^{-13}$	0
cll1	0.0001385	0.0001385	0	$7.618 \cdot 10^{-6}$	$7.618 \cdot 10^{-6}$	0
clq1	-0.01725	-0.01725	0	0.0742	0.0742	0
clq3	0.02037	0.02037	0	0.08761	0.08761	0
clu	-0.00791	-0.00791	0	0.093	0.093	0

cqe	-0.003904	-0.003904	0	0.093	0.093	0
cuBRe	$-1.386 \cdot 10^{-7}$	$-1.386 \cdot 10^{-7}$	0	$1.719 \cdot 10^{-7}$	$1.719 \cdot 10^{-7}$	0
cuHRe	$-2.045 \cdot 10^{-13}$	$-2.045 \cdot 10^{-13}$	0	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	0
cuWRe	$-1.08 \cdot 10^{-7}$	$-1.08 \cdot 10^{-7}$	0	$1.137 \cdot 10^{-7}$	$1.137 \cdot 10^{-7}$	0
sm	0	0	0	0.002003	0.002003	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0002307	-0.0002307	0	$5.029 \cdot 10^{-6}$	$5.029 \cdot 10^{-6}$	0
cHWB	-0.0005091	-0.0005091	0	$2.45 \cdot 10^{-5}$	$2.45 \cdot 10^{-5}$	0
cH13	-0.001507	-0.001507	0	$8.574 \cdot 10^{-5}$	$8.574 \cdot 10^{-5}$	0
cHq3	0.0008037	0.0008037	0	$2.436 \cdot 10^{-5}$	$2.436 \cdot 10^{-5}$	0
cHudRe	$-4.004 \cdot 10^{-16}$	$-4.004 \cdot 10^{-16}$	0	$6.976 \cdot 10^{-17}$	$6.976 \cdot 10^{-17}$	0
cdWRe	$-1.061 \cdot 10^{-9}$	$-1.061 \cdot 10^{-9}$	0	$1.092 \cdot 10^{-9}$	$1.092 \cdot 10^{-9}$	0
ceWRe	$-3.875 \cdot 10^{-7}$	$-3.875 \cdot 10^{-7}$	0	$3.986 \cdot 10^{-7}$	$3.986 \cdot 10^{-7}$	0
cledqRe	$-4.965 \cdot 10^{-12}$	$-4.965 \cdot 10^{-12}$	0	$2.477 \cdot 10^{-12}$	$2.477 \cdot 10^{-12}$	0
clequ1Re	$9.248 \cdot 10^{-10}$	$9.248 \cdot 10^{-10}$	0	$4.619 \cdot 10^{-10}$	$4.619 \cdot 10^{-10}$	0
clequ3Re	$6.464 \cdot 10^{-10}$	$6.464 \cdot 10^{-10}$	0	$1.838 \cdot 10^{-10}$	$1.838 \cdot 10^{-10}$	0
c111	0.001156	0.001156	0	$5.042 \cdot 10^{-5}$	$5.042 \cdot 10^{-5}$	0
clq3	0.1253	0.1253	0	0.5922	0.5922	0
cuWRe	$-1.251 \cdot 10^{-7}$	$-1.251 \cdot 10^{-7}$	0	$2.233 \cdot 10^{-7}$	$2.233 \cdot 10^{-7}$	0
sm	0	0	0	0.006629	0.006629	0

### 1.60 $d\bar{d} \rightarrow c\bar{c}$

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

cHDD	-0.0008834	-0.0008834	0	$2.078 \cdot 10^{-5}$	$2.078 \cdot 10^{-5}$	0
cHWB	-0.001893	-0.001893	0	0.0001127	0.0001127	0
cHd	-0.000141	-0.000141	0	$6.48 \cdot 10^{-6}$	$6.48 \cdot 10^{-6}$	0
cHl3	$2.607 \cdot 10^{-5}$	$2.607 \cdot 10^{-5}$	0	$7.744 \cdot 10^{-7}$	$7.744 \cdot 10^{-7}$	0
cHq1	-0.0002527	-0.0002527	0	$1.62 \cdot 10^{-6}$	$1.62 \cdot 10^{-6}$	0
cHq3	$5.659 \cdot 10^{-5}$	$5.659 \cdot 10^{-5}$	0	$8.321 \cdot 10^{-6}$	$8.321 \cdot 10^{-6}$	0
cHu	$7.069 \cdot 10^{-5}$	$7.069 \cdot 10^{-5}$	0	$1.65 \cdot 10^{-6}$	$1.65 \cdot 10^{-6}$	0
cdBRe	$-4.962 \cdot 10^{-13}$	$-4.962 \cdot 10^{-13}$	0	$1.435 \cdot 10^{-13}$	$1.435 \cdot 10^{-13}$	0
cdGRe	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	0	$1.559 \cdot 10^{-12}$	$1.559 \cdot 10^{-12}$	0
cdHRe	$-1.189 \cdot 10^{-15}$	$-1.189 \cdot 10^{-15}$	0	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	0
cdWRe	$-4.754 \cdot 10^{-13}$	$-4.754 \cdot 10^{-13}$	0	$2.517 \cdot 10^{-13}$	$2.517 \cdot 10^{-13}$	0
cll1	$-1.303 \cdot 10^{-5}$	$-1.303 \cdot 10^{-5}$	0	$1.936 \cdot 10^{-7}$	$1.936 \cdot 10^{-7}$	0
cqd1	-0.01361	-0.01361	0	0.9727	0.9727	0
cqd8	0.6405	0.6405	0	0.2161	0.2161	0
cqq1	$-7.73 \cdot 10^{-5}$	$-7.73 \cdot 10^{-5}$	0	0.0007571	0.0007571	0
cqq3	$7.73 \cdot 10^{-5}$	$7.73 \cdot 10^{-5}$	0	0.0007571	0.0007571	0
cqq31	0.000954	0.000954	0	0.003028	0.003028	0
cqu1	$2.075 \cdot 10^{-5}$	$2.075 \cdot 10^{-5}$	0	0.0007248	0.0007248	0
cqu8	0.0004783	0.0004783	0	0.0001611	0.0001611	0
cquqd11Re	$2.693 \cdot 10^{-15}$	$2.693 \cdot 10^{-15}$	0	$1.387 \cdot 10^{-17}$	$1.387 \cdot 10^{-17}$	0
cquqd1Re	$-3.845 \cdot 10^{-14}$	$-3.845 \cdot 10^{-14}$	0	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	0
cquqd81Re	$-1.798 \cdot 10^{-14}$	$-1.798 \cdot 10^{-14}$	0	$4.137 \cdot 10^{-15}$	$4.137 \cdot 10^{-15}$	0
cquqd8Re	$1.486 \cdot 10^{-15}$	$1.486 \cdot 10^{-15}$	0	$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	0
cuBRe	$3.478 \cdot 10^{-8}$	$3.478 \cdot 10^{-8}$	0	$6.087 \cdot 10^{-9}$	$6.087 \cdot 10^{-9}$	0
cuGRe	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	0	$2.226 \cdot 10^{-7}$	$2.226 \cdot 10^{-7}$	0
cuHRe	$-1.189 \cdot 10^{-15}$	$-1.189 \cdot 10^{-15}$	0	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	0
cuWRe	$-4.173 \cdot 10^{-7}$	$-4.173 \cdot 10^{-7}$	0	$3.604 \cdot 10^{-8}$	$3.604 \cdot 10^{-8}$	0
cud1	$-1.082 \cdot 10^{-5}$	$-1.082 \cdot 10^{-5}$	0	0.0001893	0.0001893	0
cud8	0.0001257	0.0001257	0	$4.206 \cdot 10^{-5}$	$4.206 \cdot 10^{-5}$	0

sm	0	0	0	0.9494	0.9494	0
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### 1.61 $d\bar{d} \rightarrow e^+e^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0001784	-0.0001784	0	$4.811 \cdot 10^{-6}$	$4.811 \cdot 10^{-6}$	0
cHWB	-0.0004598	-0.0004598	0	$4.347 \cdot 10^{-5}$	$4.347 \cdot 10^{-5}$	0
cHd	$-6.724 \cdot 10^{-5}$	$-6.724 \cdot 10^{-5}$	0	$3.493 \cdot 10^{-6}$	$3.493 \cdot 10^{-6}$	0
cHe	$-2.89 \cdot 10^{-5}$	$-2.89 \cdot 10^{-5}$	0	$8.309 \cdot 10^{-7}$	$8.309 \cdot 10^{-7}$	0
cHl1	0.0002799	0.0002799	0	$1.049 \cdot 10^{-5}$	$1.049 \cdot 10^{-5}$	0
cHl3	-0.0004881	-0.0004881	0	$3.495 \cdot 10^{-5}$	$3.495 \cdot 10^{-5}$	0
cHq1	0.0001797	0.0001797	0	$4.391 \cdot 10^{-6}$	$4.391 \cdot 10^{-6}$	0
cHq3	0.0002008	0.0002008	0	$4.821 \cdot 10^{-6}$	$4.821 \cdot 10^{-6}$	0
cdBRe	$1.538 \cdot 10^{-12}$	$1.538 \cdot 10^{-12}$	0	$1.257 \cdot 10^{-12}$	$1.257 \cdot 10^{-12}$	0
cdHRe	$-6.494 \cdot 10^{-23}$	$-6.494 \cdot 10^{-23}$	0	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	0
cdWRe	$-1.572 \cdot 10^{-12}$	$-1.572 \cdot 10^{-12}$	0	$8.313 \cdot 10^{-13}$	$8.313 \cdot 10^{-13}$	0
ceBRe	$1.934 \cdot 10^{-16}$	$1.934 \cdot 10^{-16}$	0	$2.07 \cdot 10^{-15}$	$2.07 \cdot 10^{-15}$	0
ceHRe	$-6.494 \cdot 10^{-23}$	$-6.494 \cdot 10^{-23}$	0	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	0
ceWRe	$-1.732 \cdot 10^{-14}$	$-1.732 \cdot 10^{-14}$	0	$1 \cdot 10^{-14}$	$1 \cdot 10^{-14}$	0
ced	0.02011	0.02011	0	0.2349	0.2349	0
cld	0.0003653	0.0003653	0	0.008589	0.008589	0
cledqRe	$-2.088 \cdot 10^{-21}$	$-2.088 \cdot 10^{-21}$	0	$1.033 \cdot 10^{-21}$	$1.033 \cdot 10^{-21}$	0
cll1	0.0004017	0.0004017	0	$2.165 \cdot 10^{-5}$	$2.165 \cdot 10^{-5}$	0
clq1	0.03965	0.03965	0	0.2088	0.2088	0
clq3	0.04461	0.04461	0	0.2349	0.2349	0
cqe	-0.0006326	-0.0006326	0	0.0145	0.0145	0
sm	0	0	0	0.002557	0.002557	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$-4.874 \cdot 10^{-5}$	$-4.874 \cdot 10^{-5}$	0	$1.071 \cdot 10^{-6}$	$1.071 \cdot 10^{-6}$	0
cHWB	$-2.765 \cdot 10^{-5}$	$-2.765 \cdot 10^{-5}$	0	$1.416 \cdot 10^{-5}$	$1.416 \cdot 10^{-5}$	0
cHd	-0.0001274	-0.0001274	0	$6.056 \cdot 10^{-5}$	$6.056 \cdot 10^{-5}$	0
cH13	$-6.348 \cdot 10^{-6}$	$-6.348 \cdot 10^{-6}$	0	$1.608 \cdot 10^{-6}$	$1.608 \cdot 10^{-6}$	0
cHq1	0.0001797	0.0001797	0	$1.219 \cdot 10^{-5}$	$1.219 \cdot 10^{-5}$	0
cHq3	$4.581 \cdot 10^{-5}$	$4.581 \cdot 10^{-5}$	0	$3.799 \cdot 10^{-6}$	$3.799 \cdot 10^{-6}$	0
cdBRe	$-4.957 \cdot 10^{-11}$	$-4.957 \cdot 10^{-11}$	0	$7.43 \cdot 10^{-11}$	$7.43 \cdot 10^{-11}$	0
cdGRe	$-5.56 \cdot 10^{-8}$	$-5.56 \cdot 10^{-8}$	0	$2.717 \cdot 10^{-9}$	$2.717 \cdot 10^{-9}$	0
cdHRe	$-1.28 \cdot 10^{-17}$	$-1.28 \cdot 10^{-17}$	0	$7.787 \cdot 10^{-19}$	$7.787 \cdot 10^{-19}$	0
cdWRe	$-3.501 \cdot 10^{-12}$	$-3.501 \cdot 10^{-12}$	0	$4.399 \cdot 10^{-10}$	$4.399 \cdot 10^{-10}$	0
cdd	0.002887	0.002887	0	0.2024	0.2024	0
cdd1	0.1342	0.1342	0	0.2024	0.2024	0
cl11	$3.174 \cdot 10^{-6}$	$3.174 \cdot 10^{-6}$	0	$4.02 \cdot 10^{-7}$	$4.02 \cdot 10^{-7}$	0
cqd1	-0.0255	-0.0255	0	1.754	1.754	0
cqd8	1.155	1.155	0	0.3898	0.3898	0
cqq1	0.001767	0.001767	0	0.01614	0.01614	0
cqq11	0.01122	0.01122	0	0.01614	0.01614	0
cqq3	0.001767	0.001767	0	0.01614	0.01614	0
cqq31	0.01122	0.01122	0	0.01614	0.01614	0
sm	0	0	0	0.8597	0.8597	0

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

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

cHDD	-0.005258	-0.005258	0	0.0002542	0.0002542	0
cHWB	0.009439	0.009439	0	0.004576	0.004576	0
cHe	-0.004633	-0.004633	0	0.0003006	0.0003006	0
cH11	-0.002777	-0.002777	0	0.0003959	0.0003959	0
cH13	0.002766	0.002766	0	0.0002956	0.0002956	0
ceBRe	$1.763 \cdot 10^{-13}$	$1.763 \cdot 10^{-13}$	0	$2.009 \cdot 10^{-13}$	$2.009 \cdot 10^{-13}$	0
ceWRe	$1.425 \cdot 10^{-13}$	$1.425 \cdot 10^{-13}$	0	$2.379 \cdot 10^{-13}$	$2.379 \cdot 10^{-13}$	0
cle	-0.2672	-0.2672	0	1	1	0
c11	0.6929	0.6929	0	2.327	2.327	0
c111	0.0008313	0.0008313	0	0.0001346	0.0001346	0
sm	0	0	0	0.02434	0.02434	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.001473	-0.001473	0	$3.21 \cdot 10^{-5}$	$3.21 \cdot 10^{-5}$	0
cHWB	-0.00325	-0.00325	0	0.0001564	0.0001564	0
cH13	-0.004661	-0.004661	0	0.0001239	0.0001239	0
ceWRe	$-6.105 \cdot 10^{-9}$	$-6.105 \cdot 10^{-9}$	0	$1.885 \cdot 10^{-10}$	$1.885 \cdot 10^{-10}$	0
c111	0.8373	0.8373	0	3.993	3.993	0
sm	0	0	0	0.04388	0.04388	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	-0.0009354	-0.0009354	0	$3.213 \cdot 10^{-5}$	$3.213 \cdot 10^{-5}$	0
cHWB	0.0008871	0.0008871	0	0.0005572	0.0005572	0

cHe	-0.01575	-0.01575	0	0.001022	0.001022	0
cHl1	-0.0006835	-0.0006835	0	$3.666 \cdot 10^{-5}$	$3.666 \cdot 10^{-5}$	0
cHl3	-0.007846	-0.007846	0	0.001648	0.001648	0
ceBRe	$7.424 \cdot 10^{-14}$	$7.424 \cdot 10^{-14}$	0	$3.249 \cdot 10^{-14}$	$3.249 \cdot 10^{-14}$	0
ceWRe	$-1.595 \cdot 10^{-14}$	$-1.595 \cdot 10^{-14}$	0	$1.388 \cdot 10^{-13}$	$1.388 \cdot 10^{-13}$	0
cle	-0.4926	-0.4926	0	1	1	0
c11	0.1412	0.1412	0	0.4417	0.4417	0
c111	1.131	1.131	0	2.369	2.369	0
sm	0	0	0	0.1965	0.1965	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	0.0002645	0.0002645	0	$2.122 \cdot 10^{-6}$	$2.122 \cdot 10^{-6}$	0
cHWB	-0.0002921	-0.0002921	0	$7.38 \cdot 10^{-6}$	$7.38 \cdot 10^{-6}$	0
cHe	0.0022	0.0022	0	0.0001215	0.0001215	0
cHl1	-0.001219	-0.001219	0	$3.882 \cdot 10^{-5}$	$3.882 \cdot 10^{-5}$	0
cHl3	-0.0004593	-0.0004593	0	$4.018 \cdot 10^{-5}$	$4.018 \cdot 10^{-5}$	0
ceBRe	$7.595 \cdot 10^{-7}$	$7.595 \cdot 10^{-7}$	0	$5.112 \cdot 10^{-7}$	$5.112 \cdot 10^{-7}$	0
ceHRe	$-5.434 \cdot 10^{-17}$	$-5.434 \cdot 10^{-17}$	0	$3.185 \cdot 10^{-18}$	$3.185 \cdot 10^{-18}$	0
ceWRe	$-1.667 \cdot 10^{-7}$	$-1.667 \cdot 10^{-7}$	0	$1.604 \cdot 10^{-6}$	$1.604 \cdot 10^{-6}$	0
cee	-0.1189	-0.1189	0	0.5774	0.5774	0
cle	-0.4162	-0.4162	0	2	2	0
c11	-0.007775	-0.007775	0	0.05046	0.05046	0
c111	-0.1278	-0.1278	0	0.5698	0.5698	0
sm	0	0	0	0.03479	0.03479	0



### 1.67 $e^+e^- \rightarrow \mu^+\mu^-$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	$9.667 \cdot 10^{-5}$	$9.667 \cdot 10^{-5}$	0	$1.912 \cdot 10^{-6}$	$1.912 \cdot 10^{-6}$	0
cHWB	-0.00017	-0.00017	0	$1.867 \cdot 10^{-5}$	$1.867 \cdot 10^{-5}$	0
cHe	-0.001533	-0.001533	0	$4.788 \cdot 10^{-5}$	$4.788 \cdot 10^{-5}$	0
cHl1	-0.0004805	-0.0004805	0	$2.249 \cdot 10^{-5}$	$2.249 \cdot 10^{-5}$	0
cHl3	-0.0003028	-0.0003028	0	$8.363 \cdot 10^{-5}$	$8.363 \cdot 10^{-5}$	0
ceBRe	$3.782 \cdot 10^{-9}$	$3.782 \cdot 10^{-9}$	0	$2.484 \cdot 10^{-9}$	$2.484 \cdot 10^{-9}$	0
ceHRe	$-1.959 \cdot 10^{-19}$	$-1.959 \cdot 10^{-19}$	0	$1.203 \cdot 10^{-20}$	$1.203 \cdot 10^{-20}$	0
ceWRe	$-3.723 \cdot 10^{-9}$	$-3.723 \cdot 10^{-9}$	0	$1.016 \cdot 10^{-9}$	$1.016 \cdot 10^{-9}$	0
cee	0.3957	0.3957	0	3.082	3.082	0
cle	0.003811	0.003811	0	0.02987	0.02987	0
c11	0.02741	0.02741	0	0.1993	0.1993	0
c111	0.4248	0.4248	0	3.108	3.108	0
sm	0	0	0	0.02739	0.02739	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	0.0004413	0.0004413	0	$2.926 \cdot 10^{-6}$	$2.926 \cdot 10^{-6}$	0
cHWB	-0.0004501	-0.0004501	0	$3.05 \cdot 10^{-6}$	$3.05 \cdot 10^{-6}$	0
cHe	-0.08141	-0.08141	0	0.02044	0.02044	0
cHl1	-0.002014	-0.002014	0	$6.09 \cdot 10^{-5}$	$6.09 \cdot 10^{-5}$	0
cHl3	-0.1122	-0.1122	0	0.01978	0.01978	0
ceBRe	$4.284 \cdot 10^{-13}$	$4.284 \cdot 10^{-13}$	0	$2.022 \cdot 10^{-13}$	$2.022 \cdot 10^{-13}$	0
ceHRe	$1.345 \cdot 10^{-13}$	$1.345 \cdot 10^{-13}$	0	$8.177 \cdot 10^{-25}$	$8.177 \cdot 10^{-25}$	0

ceWRe	$4.598 \cdot 10^{-12}$	$4.598 \cdot 10^{-12}$	0	$7.178 \cdot 10^{-12}$	$7.178 \cdot 10^{-12}$	0
cee	-14.72	-14.72	0	14.24	14.24	0
cle	-4.834	-4.834	0	2.006	2.006	0
c11	-0.0004772	-0.0004772	0	0.09101	0.09101	0
c111	-15.48	-15.48	0	13.4	13.4	0
sm	0	0	0	11.02	11.02	0

### 1.69 $gg \rightarrow gg$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cG	$-6.506 \cdot 10^{-10}$	$-6.506 \cdot 10^{-10}$	$1.43 \cdot 10^{-5}$	99.6	99.6	0
sm	0	0	0	97.65	97.65	0

### 1.70 $gg \rightarrow ggg$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cG	-0.001347	-0.001347	0	0.007036	0.007036	0
sm	0	0	0	0.009542	0.009542	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	-0.08191	-0.08191	0	1.868	1.868	0
cHG	-0.05294	-0.05294	0	0.04069	0.04069	0
cuGRe	-0.6238	-0.6238	0	0.1177	0.1177	0

sm	0	0	0	0.8249	0.8249	0
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### 1.72 $gg \rightarrow u\bar{u}$

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cG	$-9.621 \cdot 10^{-12}$	$-9.621 \cdot 10^{-12}$	0	2.021	2.021	0
cHG	$-8.689 \cdot 10^{-12}$	$-8.689 \cdot 10^{-12}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0
cuGRe	$-7.226 \cdot 10^{-11}$	$-7.226 \cdot 10^{-11}$	0	$1.49 \cdot 10^{-11}$	$1.49 \cdot 10^{-11}$	0
sm	0	0	0	0.5886	0.5886	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	$-1.565 \cdot 10^{-5}$	$-1.565 \cdot 10^{-5}$	0	$3.633 \cdot 10^{-7}$	$3.633 \cdot 10^{-7}$	0
cHWB	$2.006 \cdot 10^{-5}$	$2.006 \cdot 10^{-5}$	0	$4.256 \cdot 10^{-6}$	$4.256 \cdot 10^{-6}$	0
cHd	$-7.178 \cdot 10^{-5}$	$-7.178 \cdot 10^{-5}$	0	$1.397 \cdot 10^{-5}$	$1.397 \cdot 10^{-5}$	0
cHl1	$-3.978 \cdot 10^{-5}$	$-3.978 \cdot 10^{-5}$	0	$1.206 \cdot 10^{-6}$	$1.206 \cdot 10^{-6}$	0
cHl3	-0.0006754	-0.0006754	0	$3.137 \cdot 10^{-5}$	$3.137 \cdot 10^{-5}$	0
cHq1	$3.388 \cdot 10^{-5}$	$3.388 \cdot 10^{-5}$	0	$1.216 \cdot 10^{-6}$	$1.216 \cdot 10^{-6}$	0
cHq3	0.0005229	0.0005229	0	$1.877 \cdot 10^{-5}$	$1.877 \cdot 10^{-5}$	0
cdBRe	$-4.257 \cdot 10^{-10}$	$-4.257 \cdot 10^{-10}$	0	$7.057 \cdot 10^{-11}$	$7.057 \cdot 10^{-11}$	0
cdWRe	$-7.711 \cdot 10^{-10}$	$-7.711 \cdot 10^{-10}$	0	$2.316 \cdot 10^{-10}$	$2.316 \cdot 10^{-10}$	0
cld	0.0001581	0.0001581	0	0.003671	0.003671	0
c1l1	0.0005585	0.0005585	0	$2.143 \cdot 10^{-5}$	$2.143 \cdot 10^{-5}$	0
clq1	-0.004041	-0.004041	0	0.0173	0.0173	0
clq3	0.06237	0.06237	0	0.267	0.267	0
sm	0	0	0	0.003643	0.003643	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	0.01227	0.01227	0	$7.433 \cdot 10^{-5}$	$7.433 \cdot 10^{-5}$	0
cHWB	0.01707	0.01707	0	0.0003714	0.0003714	0
cHd	0.007394	0.007394	0	0.0009144	0.0009144	0
cH13	0.1156	0.1156	0	0.01253	0.01253	0
cHq1	-0.03964	-0.03964	0	0.0007397	0.0007397	0
cHq3	-0.09554	-0.09554	0	0.007661	0.007661	0
cdBRe	$-3.726 \cdot 10^{-8}$	$-3.726 \cdot 10^{-8}$	0	$1.71 \cdot 10^{-8}$	$1.71 \cdot 10^{-8}$	0
cdGRe	$-4.644 \cdot 10^{-7}$	$-4.644 \cdot 10^{-7}$	0	$5.78 \cdot 10^{-7}$	$5.78 \cdot 10^{-7}$	0
cdHRe	$7.772 \cdot 10^{-8}$	$7.772 \cdot 10^{-8}$	0	$6.78 \cdot 10^{-16}$	$6.78 \cdot 10^{-16}$	0
cdWRe	$2.742 \cdot 10^{-7}$	$2.742 \cdot 10^{-7}$	0	$9.889 \cdot 10^{-8}$	$9.889 \cdot 10^{-8}$	0
cdd	-2.536	-2.536	0	4.839	4.839	0
cdd1	-2.536	-2.536	0	4.839	4.839	0
cl11	-0.05781	-0.05781	0	0.003132	0.003132	0
cqd1	0.1876	0.1876	0	2.033	2.033	0
cqd8	-10.27	-10.27	0	0.4517	0.4517	0
cqq1	-16.45	-16.45	0	8.111	8.111	0
cqq11	-16.45	-16.45	0	8.111	8.111	0
cqq3	-16.45	-16.45	0	8.111	8.111	0
cqq31	-16.45	-16.45	0	8.111	8.111	0
sm	0	0	0	108	108	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	-0.0002564	-0.0002564	0	$6.547 \cdot 10^{-6}$	$6.547 \cdot 10^{-6}$	0
cHWB	-0.00049	-0.00049	0	$2.438 \cdot 10^{-5}$	$2.438 \cdot 10^{-5}$	0
cHl1	-0.0003054	-0.0003054	0	$9.257 \cdot 10^{-6}$	$9.257 \cdot 10^{-6}$	0
cHl3	-0.0003296	-0.0003296	0	$2.705 \cdot 10^{-5}$	$2.705 \cdot 10^{-5}$	0
cHq1	-0.0004495	-0.0004495	0	$2.01 \cdot 10^{-5}$	$2.01 \cdot 10^{-5}$	0
cHq3	0.0002152	0.0002152	0	$9.791 \cdot 10^{-6}$	$9.791 \cdot 10^{-6}$	0
cHu	$-1.33 \cdot 10^{-5}$	$-1.33 \cdot 10^{-5}$	0	$2.517 \cdot 10^{-7}$	$2.517 \cdot 10^{-7}$	0
cll1	0.0002419	0.0002419	0	$1.293 \cdot 10^{-5}$	$1.293 \cdot 10^{-5}$	0
clq1	0.05361	0.05361	0	0.286	0.286	0
clq3	0.02567	0.02567	0	0.1393	0.1393	0
clu	0.001587	0.001587	0	0.003579	0.003579	0
cuBRe	0.001203	0.001203	0	0.0003262	0.0003262	0
cuWRe	-0.002179	-0.002179	0	0.00107	0.00107	0
sm	0	0	0	0.001272	0.001272	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	$-9.53 \cdot 10^{-5}$	$-9.53 \cdot 10^{-5}$	0	$2.444 \cdot 10^{-6}$	$2.444 \cdot 10^{-6}$	0
cHWB	-0.0002426	-0.0002426	0	$3.1 \cdot 10^{-5}$	$3.1 \cdot 10^{-5}$	0
cHe	$-9.262 \cdot 10^{-5}$	$-9.262 \cdot 10^{-5}$	0	$1.739 \cdot 10^{-6}$	$1.739 \cdot 10^{-6}$	0
cHl1	0.000139	0.000139	0	$3.996 \cdot 10^{-6}$	$3.996 \cdot 10^{-6}$	0
cHl3	-0.0004816	-0.0004816	0	$3.931 \cdot 10^{-5}$	$3.931 \cdot 10^{-5}$	0
cHq1	-0.0001063	-0.0001063	0	$3.324 \cdot 10^{-6}$	$3.324 \cdot 10^{-6}$	0
cHq3	0.0002364	0.0002364	0	$4.849 \cdot 10^{-6}$	$4.849 \cdot 10^{-6}$	0
cHu	$4.417 \cdot 10^{-5}$	$4.417 \cdot 10^{-5}$	0	$3.098 \cdot 10^{-6}$	$3.098 \cdot 10^{-6}$	0
ceBRe	$1.036 \cdot 10^{-7}$	$1.036 \cdot 10^{-7}$	0	$1.287 \cdot 10^{-7}$	$1.287 \cdot 10^{-7}$	0
ceHRe	$-1.004 \cdot 10^{-6}$	$-1.004 \cdot 10^{-6}$	0	$3.052 \cdot 10^{-8}$	$3.052 \cdot 10^{-8}$	0
ceWRe	$1.409 \cdot 10^{-7}$	$1.409 \cdot 10^{-7}$	0	$1.333 \cdot 10^{-7}$	$1.333 \cdot 10^{-7}$	0

ceu	-0.02002	-0.02002	0	0.1145	0.1145	0
clequ1Re	$3.391 \cdot 10^{-5}$	$3.391 \cdot 10^{-5}$	0	$1.711 \cdot 10^{-5}$	$1.711 \cdot 10^{-5}$	0
clequ3Re	$-1.635 \cdot 10^{-5}$	$-1.635 \cdot 10^{-5}$	0	$2.187 \cdot 10^{-5}$	$2.187 \cdot 10^{-5}$	0
c111	0.0003946	0.0003946	0	$1.968 \cdot 10^{-5}$	$1.968 \cdot 10^{-5}$	0
clq1	-0.02746	-0.02746	0	0.1145	0.1145	0
clq3	0.05464	0.05464	0	0.2314	0.2314	0
clu	-0.007896	-0.007896	0	0.06564	0.06564	0
cqe	-0.00446	-0.00446	0	0.06564	0.06564	0
cuBRe	-0.002931	-0.002931	0	0.003701	0.003701	0
cuHRe	$-1.004 \cdot 10^{-6}$	$-1.004 \cdot 10^{-6}$	0	$3.052 \cdot 10^{-8}$	$3.052 \cdot 10^{-8}$	0
cuWRe	-0.002249	-0.002249	0	0.002448	0.002448	0
sm	0	0	0	0.005001	0.005001	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	$-6.981 \cdot 10^{-5}$	$-6.981 \cdot 10^{-5}$	0	$1.74 \cdot 10^{-6}$	$1.74 \cdot 10^{-6}$	0
cHWB	-0.0003065	-0.0003065	0	$2.824 \cdot 10^{-5}$	$2.824 \cdot 10^{-5}$	0
cH13	-0.001324	-0.001324	0	0.0001244	0.0001244	0
cHq1	-0.000107	-0.000107	0	$1.666 \cdot 10^{-5}$	$1.666 \cdot 10^{-5}$	0
cHq3	0.0008729	0.0008729	0	$4.914 \cdot 10^{-5}$	$4.914 \cdot 10^{-5}$	0
cHu	-0.0001825	-0.0001825	0	$3.779 \cdot 10^{-5}$	$3.779 \cdot 10^{-5}$	0
c111	0.0006619	0.0006619	0	$3.11 \cdot 10^{-5}$	$3.11 \cdot 10^{-5}$	0
cqq1	0.1598	0.1598	0	1.447	1.447	0
cqq11	1.085	1.085	0	1.447	1.447	0
cqq3	0.1598	0.1598	0	1.447	1.447	0
cqq31	1.085	1.085	0	1.447	1.447	0
cqu1	0.04117	0.04117	0	1.116	1.116	0

cqu8	0.7744	0.7744	0	0.2481	0.2481	0
cuBRe	-0.002096	-0.002096	0	0.003489	0.003489	0
cuGRe	-0.1971	-0.1971	0	0.03791	0.03791	0
cuHRe	$-3.068 \cdot 10^{-6}$	$-3.068 \cdot 10^{-6}$	0	$1.87 \cdot 10^{-7}$	$1.87 \cdot 10^{-7}$	0
cuWRe	-0.003212	-0.003212	0	0.006122	0.006122	0
cuu	0.01991	0.01991	0	0.3198	0.3198	0
cuu1	0.2958	0.2958	0	0.3198	0.3198	0
sm	0	0	0	0.596	0.596	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0001538	-0.0001538	0	$3.828 \cdot 10^{-6}$	$3.828 \cdot 10^{-6}$	0
cHWB	-0.0003134	-0.0003134	0	$3.918 \cdot 10^{-5}$	$3.918 \cdot 10^{-5}$	0
cHd	$1.392 \cdot 10^{-5}$	$1.392 \cdot 10^{-5}$	0	$1.292 \cdot 10^{-5}$	$1.292 \cdot 10^{-5}$	0
cHl3	-0.0005646	-0.0005646	0	$5.655 \cdot 10^{-5}$	$5.655 \cdot 10^{-5}$	0
cHq1	$-2.248 \cdot 10^{-5}$	$-2.248 \cdot 10^{-5}$	0	$3.731 \cdot 10^{-6}$	$3.731 \cdot 10^{-6}$	0
cHq3	0.0004082	0.0004082	0	$2.746 \cdot 10^{-5}$	$2.746 \cdot 10^{-5}$	0
cHu	$4.826 \cdot 10^{-5}$	$4.826 \cdot 10^{-5}$	0	$1.932 \cdot 10^{-5}$	$1.932 \cdot 10^{-5}$	0
cdBRe	$3.812 \cdot 10^{-12}$	$3.812 \cdot 10^{-12}$	0	$2.572 \cdot 10^{-12}$	$2.572 \cdot 10^{-12}$	0
cdGRe	$-1.567 \cdot 10^{-10}$	$-1.567 \cdot 10^{-10}$	0	$2.887 \cdot 10^{-11}$	$2.887 \cdot 10^{-11}$	0
cdHRe	$-2.089 \cdot 10^{-11}$	$-2.089 \cdot 10^{-11}$	0	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	0
cdWRe	$-5.924 \cdot 10^{-12}$	$-5.924 \cdot 10^{-12}$	0	$4.384 \cdot 10^{-12}$	$4.384 \cdot 10^{-12}$	0
cll1	0.0002823	0.0002823	0	$1.414 \cdot 10^{-5}$	$1.414 \cdot 10^{-5}$	0
cqd1	-0.007305	-0.007305	0	0.4004	0.4004	0
cqd8	0.2833	0.2833	0	0.08897	0.08897	0
cqq1	-0.06275	-0.06275	0	0.6307	0.6307	0
cqq3	0.06275	0.06275	0	0.6307	0.6307	0

cqq31	0.946	0.946	0	2.523	2.523	0
cqu1	0.00494	0.00494	0	0.3797	0.3797	0
cqu8	0.2697	0.2697	0	0.08438	0.08438	0
cquqd11Re	$-4.986 \cdot 10^{-11}$	$-4.986 \cdot 10^{-11}$	0	$1.345 \cdot 10^{-10}$	$1.345 \cdot 10^{-10}$	0
cquqd1Re	$-7.04 \cdot 10^{-10}$	$-7.04 \cdot 10^{-10}$	0	$3.545 \cdot 10^{-10}$	$3.545 \cdot 10^{-10}$	0
cquqd81Re	$-2.116 \cdot 10^{-10}$	$-2.116 \cdot 10^{-10}$	0	$3.151 \cdot 10^{-11}$	$3.151 \cdot 10^{-11}$	0
cquqd8Re	$6.664 \cdot 10^{-12}$	$6.664 \cdot 10^{-12}$	0	$7.878 \cdot 10^{-11}$	$7.878 \cdot 10^{-11}$	0
cuBRe	$2.489 \cdot 10^{-5}$	$2.489 \cdot 10^{-5}$	0	0.001224	0.001224	0
cuGRe	-0.1971	-0.1971	0	0.04477	0.04477	0
cuHRe	$-2.089 \cdot 10^{-11}$	$-2.089 \cdot 10^{-11}$	0	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	0
cuWRe	-0.002597	-0.002597	0	0.007248	0.007248	0
cud1	-0.009416	-0.009416	0	0.1577	0.1577	0
cud8	0.1235	0.1235	0	0.03504	0.03504	0
sm	0	0	0	0.6045	0.6045	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	-0.0003036	-0.0003036	0	$7.315 \cdot 10^{-6}$	$7.315 \cdot 10^{-6}$	0
cHWB	-0.0006584	-0.0006584	0	$5.119 \cdot 10^{-5}$	$5.119 \cdot 10^{-5}$	0
cHd	$-2.376 \cdot 10^{-5}$	$-2.376 \cdot 10^{-5}$	0	$8.257 \cdot 10^{-6}$	$8.257 \cdot 10^{-6}$	0
cHl3	-0.0009245	-0.0009245	0	$9.001 \cdot 10^{-5}$	$9.001 \cdot 10^{-5}$	0
cHq1	$-8.125 \cdot 10^{-5}$	$-8.125 \cdot 10^{-5}$	0	$2.532 \cdot 10^{-6}$	$2.532 \cdot 10^{-6}$	0
cHq3	0.0006521	0.0006521	0	$4.219 \cdot 10^{-5}$	$4.219 \cdot 10^{-5}$	0
cHu	$2.46 \cdot 10^{-5}$	$2.46 \cdot 10^{-5}$	0	$1.094 \cdot 10^{-5}$	$1.094 \cdot 10^{-5}$	0
cdBRe	$5.387 \cdot 10^{-10}$	$5.387 \cdot 10^{-10}$	0	$1.078 \cdot 10^{-9}$	$1.078 \cdot 10^{-9}$	0
cdGRe	$-6.213 \cdot 10^{-8}$	$-6.213 \cdot 10^{-8}$	0	$1.207 \cdot 10^{-8}$	$1.207 \cdot 10^{-8}$	0
cdHRe	$-8.264 \cdot 10^{-9}$	$-8.264 \cdot 10^{-9}$	0	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	0



cdWRe	$-1.39 \cdot 10^{-9}$	$-1.39 \cdot 10^{-9}$	0	$1.84 \cdot 10^{-9}$	$1.84 \cdot 10^{-9}$	0
c111	0.0004622	0.0004622	0	$2.25 \cdot 10^{-5}$	$2.25 \cdot 10^{-5}$	0
cqd1	-0.005584	-0.005584	0	0.2774	0.2774	0
cqd8	0.2023	0.2023	0	0.06164	0.06164	0
cqq1	-0.1018	-0.1018	0	1.013	1.013	0
cqq3	0.1018	0.1018	0	1.013	1.013	0
cqq31	1.423	1.423	0	4.051	4.051	0
cqu1	$-7.95 \cdot 10^{-5}$	$-7.95 \cdot 10^{-5}$	0	0.2071	0.2071	0
cqu8	0.156	0.156	0	0.04602	0.04602	0
cquqd11Re	$-8.023 \cdot 10^{-9}$	$-8.023 \cdot 10^{-9}$	0	$2.909 \cdot 10^{-8}$	$2.909 \cdot 10^{-8}$	0
cquqd1Re	$-2.789 \cdot 10^{-7}$	$-2.789 \cdot 10^{-7}$	0	$1.406 \cdot 10^{-7}$	$1.406 \cdot 10^{-7}$	0
cquqd81Re	$-7.003 \cdot 10^{-8}$	$-7.003 \cdot 10^{-8}$	0	$8.658 \cdot 10^{-9}$	$8.658 \cdot 10^{-9}$	0
cquqd8Re	$2.631 \cdot 10^{-10}$	$2.631 \cdot 10^{-10}$	0	$3.124 \cdot 10^{-8}$	$3.124 \cdot 10^{-8}$	0
cuBRe	0.0001995	0.0001995	0	0.001253	0.001253	0
cuGRe	-0.1971	-0.1971	0	0.04582	0.04582	0
cuHRe	$-8.264 \cdot 10^{-9}$	$-8.264 \cdot 10^{-9}$	0	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	0
cuWRe	-0.004063	-0.004063	0	0.007418	0.007418	0
cud1	-0.01487	-0.01487	0	0.2532	0.2532	0
cud8	0.1864	0.1864	0	0.05627	0.05627	0
sm	0	0	0	0.5787	0.5787	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	0.05145	0.05145	0	0.0009692	0.0009692	0
cHWB	0.01375	0.01375	0	0.0004029	0.0004029	0
cH13	0.3315	0.3315	0	0.01689	0.01689	0
cHq1	0.1083	0.1083	0	0.00891	0.00891	0

cHq3	-0.1788	-0.1788	0	0.00941	0.00941	0
cHu	-0.09532	-0.09532	0	0.009357	0.009357	0
c111	-0.1657	-0.1657	0	0.004221	0.004221	0
cqq1	-5.95	-5.95	0	17.24	17.24	0
cqq11	-5.95	-5.95	0	17.24	17.24	0
cqq3	-5.95	-5.95	0	17.24	17.24	0
cqq31	-5.95	-5.95	0	17.24	17.24	0
cqu1	-0.2021	-0.2021	0	8.709	8.709	0
cqu8	-3.926	-3.926	0	1.898	1.898	0
cuBRe	0.1717	0.1717	0	0.1057	0.1057	0
cuGRe	-0.2105	-0.2105	0	0.7204	0.7204	0
cuHRe	0.08992	0.08992	0	0.008728	0.008728	0
cuWRe	0.1923	0.1923	0	0.176	0.176	0
cuu	-2.216	-2.216	0	11.65	11.65	0
cuu1	-2.216	-2.216	0	11.65	11.65	0
sm	0	0	0	10.71	10.71	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	-0.0001729	-0.0001729	0	$3.769 \cdot 10^{-6}$	$3.769 \cdot 10^{-6}$	0
cHWB	-0.0003815	-0.0003815	0	$1.837 \cdot 10^{-5}$	$1.837 \cdot 10^{-5}$	0
cH13	-0.0001689	-0.0001689	0	$9.61 \cdot 10^{-6}$	$9.61 \cdot 10^{-6}$	0
cHq3	$9.009 \cdot 10^{-5}$	$9.009 \cdot 10^{-5}$	0	$2.731 \cdot 10^{-6}$	$2.731 \cdot 10^{-6}$	0
cHudRe	$-3.037 \cdot 10^{-24}$	$-3.037 \cdot 10^{-24}$	0	$6.131 \cdot 10^{-25}$	$6.131 \cdot 10^{-25}$	0
cdWRe	$-8.959 \cdot 10^{-13}$	$-8.959 \cdot 10^{-13}$	0	$2.147 \cdot 10^{-12}$	$2.147 \cdot 10^{-12}$	0
ceWRe	$-4.586 \cdot 10^{-10}$	$-4.586 \cdot 10^{-10}$	0	$1.099 \cdot 10^{-9}$	$1.099 \cdot 10^{-9}$	0
cledqRe	$-4.401 \cdot 10^{-17}$	$-4.401 \cdot 10^{-17}$	0	$2.208 \cdot 10^{-17}$	$2.208 \cdot 10^{-17}$	0

clequ1Re	$9.465 \cdot 10^{-18}$	$9.465 \cdot 10^{-18}$	0	$4.724 \cdot 10^{-18}$	$4.724 \cdot 10^{-18}$	0
clequ3Re	$1.083 \cdot 10^{-17}$	$1.083 \cdot 10^{-17}$	0	$5.542 \cdot 10^{-18}$	$5.542 \cdot 10^{-18}$	0
cll1	0.0001296	0.0001296	0	$5.651 \cdot 10^{-6}$	$5.651 \cdot 10^{-6}$	0
clq3	0.01405	0.01405	0	0.06638	0.06638	0
cuWRe	$-3.132 \cdot 10^{-13}$	$-3.132 \cdot 10^{-13}$	0	$6.138 \cdot 10^{-13}$	$6.138 \cdot 10^{-13}$	0
sm	0	0	0	0.000743	0.000743	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	-0.0005455	-0.0005455	0	$1.189 \cdot 10^{-5}$	$1.189 \cdot 10^{-5}$	0
cHWB	-0.001204	-0.001204	0	$5.794 \cdot 10^{-5}$	$5.794 \cdot 10^{-5}$	0
cH13	-0.002888	-0.002888	0	0.0002518	0.0002518	0
cHq3	0.002009	0.002009	0	0.0001218	0.0001218	0
cHudRe	$-1.249 \cdot 10^{-15}$	$-1.249 \cdot 10^{-15}$	0	$2.448 \cdot 10^{-16}$	$2.448 \cdot 10^{-16}$	0
cdWRe	$-2.06 \cdot 10^{-9}$	$-2.06 \cdot 10^{-9}$	0	$3.621 \cdot 10^{-9}$	$3.621 \cdot 10^{-9}$	0
cll1	0.001445	0.001445	0	$6.302 \cdot 10^{-5}$	$6.302 \cdot 10^{-5}$	0
cqq11	0.05221	0.05221	0	0.7402	0.7402	0
cqq3	0.3133	0.3133	0	2.961	2.961	0
cqq31	-0.05221	-0.05221	0	0.7402	0.7402	0
cquqd11Re	$-4.056 \cdot 10^{-15}$	$-4.056 \cdot 10^{-15}$	0	$3.756 \cdot 10^{-15}$	$3.756 \cdot 10^{-15}$	0
cquqd1Re	$-1.919 \cdot 10^{-14}$	$-1.919 \cdot 10^{-14}$	0	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	0
cquqd81Re	$-4.931 \cdot 10^{-15}$	$-4.931 \cdot 10^{-15}$	0	$6.914 \cdot 10^{-16}$	$6.914 \cdot 10^{-16}$	0
cquqd8Re	$-6.316 \cdot 10^{-31}$	$-6.316 \cdot 10^{-31}$	0	$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	0
cuWRe	$-3.331 \cdot 10^{-7}$	$-3.331 \cdot 10^{-7}$	0	$6.432 \cdot 10^{-7}$	$6.432 \cdot 10^{-7}$	0
sm	0	0	0	0.008285	0.008285	0

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

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
cHDD	0.0006387	0.0006387	0	$1.113 \cdot 10^{-5}$	$1.113 \cdot 10^{-5}$	0
cHWB	0.001648	0.001648	0	0.0001264	0.0001264	0
cHd	0.0001329	0.0001329	0	$5.957 \cdot 10^{-5}$	$5.957 \cdot 10^{-5}$	0
cHl3	0.003735	0.003735	0	0.0002532	0.0002532	0
cHq1	0.0001151	0.0001151	0	$1.523 \cdot 10^{-5}$	$1.523 \cdot 10^{-5}$	0
cHq3	-0.002449	-0.002449	0	0.0001376	0.0001376	0
cHu	0.0003612	0.0003612	0	$8.853 \cdot 10^{-5}$	$8.853 \cdot 10^{-5}$	0
cHudRe	$-1.19 \cdot 10^{-20}$	$-1.19 \cdot 10^{-20}$	0	$4.972 \cdot 10^{-24}$	$4.972 \cdot 10^{-24}$	0
cdBRe	$-1.931 \cdot 10^{-12}$	$-1.931 \cdot 10^{-12}$	0	$4.623 \cdot 10^{-12}$	$4.623 \cdot 10^{-12}$	0
cdGRe	$-1.459 \cdot 10^{-10}$	$-1.459 \cdot 10^{-10}$	0	$5.042 \cdot 10^{-11}$	$5.042 \cdot 10^{-11}$	0
cdHRe	$-2.036 \cdot 10^{-21}$	$-2.036 \cdot 10^{-21}$	0	$9.757 \cdot 10^{-23}$	$9.757 \cdot 10^{-23}$	0
cdWRe	$6.025 \cdot 10^{-12}$	$6.025 \cdot 10^{-12}$	0	$1.623 \cdot 10^{-11}$	$1.623 \cdot 10^{-11}$	0
c111	-0.001868	-0.001868	0	$6.335 \cdot 10^{-5}$	$6.335 \cdot 10^{-5}$	0
cqd1	0.02099	0.02099	0	1	1	0
cqd8	-0.9475	-0.9475	0	0.2222	0.2222	0
cqq1	0.08012	0.08012	0	0.3721	0.3721	0
cqq11	0.08012	0.08012	0	0.3721	0.3721	0
cqq3	-0.5919	-0.5919	0	1.364	1.364	0
cqq31	-0.5919	-0.5919	0	1.364	1.364	0
cqu1	-0.03746	-0.03746	0	1	1	0
cqu8	-0.8914	-0.8914	0	0.2222	0.2222	0
cquqd11Re	$-1.116 \cdot 10^{-21}$	$-1.116 \cdot 10^{-21}$	0	$1.129 \cdot 10^{-19}$	$1.129 \cdot 10^{-19}$	0
cquqd1Re	$-1.116 \cdot 10^{-21}$	$-1.116 \cdot 10^{-21}$	0	$1.129 \cdot 10^{-19}$	$1.129 \cdot 10^{-19}$	0
cquqd81Re	$1.87 \cdot 10^{-20}$	$1.87 \cdot 10^{-20}$	0	$1.255 \cdot 10^{-20}$	$1.255 \cdot 10^{-20}$	0
cquqd8Re	$1.87 \cdot 10^{-20}$	$1.87 \cdot 10^{-20}$	0	$1.255 \cdot 10^{-20}$	$1.255 \cdot 10^{-20}$	0
cuBRe	$-1.567 \cdot 10^{-13}$	$-1.567 \cdot 10^{-13}$	0	$2.314 \cdot 10^{-13}$	$2.314 \cdot 10^{-13}$	0
cuGRe	$-3.103 \cdot 10^{-11}$	$-3.103 \cdot 10^{-11}$	0	$8.694 \cdot 10^{-12}$	$8.694 \cdot 10^{-12}$	0

cuHRe	$-2.036 \cdot 10^{-21}$	$-2.036 \cdot 10^{-21}$	0	$9.757 \cdot 10^{-23}$	$9.757 \cdot 10^{-23}$	0
cuWRe	$-3.087 \cdot 10^{-13}$	$-3.087 \cdot 10^{-13}$	0	$3.068 \cdot 10^{-12}$	$3.068 \cdot 10^{-12}$	0
cud1	0.007603	0.007603	0	0.09303	0.09303	0
cud8	-0.08814	-0.08814	0	0.02067	0.02067	0
sm	0	0	0	2.179	2.179	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHDD	-0.0002116	-0.0002116	0	$5.306 \cdot 10^{-6}$	$5.306 \cdot 10^{-6}$	0
cHWB	-0.0003882	-0.0003882	0	$1.91 \cdot 10^{-5}$	$1.91 \cdot 10^{-5}$	0
cHl1	-0.0002589	-0.0002589	0	$7.848 \cdot 10^{-6}$	$7.848 \cdot 10^{-6}$	0
cHl3	-0.0006617	-0.0006617	0	$4.638 \cdot 10^{-5}$	$4.638 \cdot 10^{-5}$	0
cHq1	-0.0003731	-0.0003731	0	$1.642 \cdot 10^{-5}$	$1.642 \cdot 10^{-5}$	0
cHq3	0.0004188	0.0004188	0	$1.843 \cdot 10^{-5}$	$1.843 \cdot 10^{-5}$	0
cHu	$6.385 \cdot 10^{-6}$	$6.385 \cdot 10^{-6}$	0	$6.214 \cdot 10^{-7}$	$6.214 \cdot 10^{-7}$	0
cll1	0.0004755	0.0004755	0	$2.382 \cdot 10^{-5}$	$2.382 \cdot 10^{-5}$	0
clq1	0.0445	0.0445	0	0.2336	0.2336	0
clq3	0.04994	0.04994	0	0.2622	0.2622	0
clu	-0.0007614	-0.0007614	0	0.008839	0.008839	0
cuBRe	$1.633 \cdot 10^{-13}$	$1.633 \cdot 10^{-13}$	0	$5.525 \cdot 10^{-14}$	$5.525 \cdot 10^{-14}$	0
cuWRe	$-2.958 \cdot 10^{-13}$	$-2.958 \cdot 10^{-13}$	0	$1.813 \cdot 10^{-13}$	$1.813 \cdot 10^{-13}$	0
sm	0	0	0	0.002386	0.002386	0

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

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

cHDD	-0.0007451	-0.0007451	0	$1.757 \cdot 10^{-5}$	$1.757 \cdot 10^{-5}$	0
cHWB	-0.001668	-0.001668	0	0.0001473	0.0001473	0
cH13	-0.0008112	-0.0008112	0	$7.792 \cdot 10^{-5}$	$7.792 \cdot 10^{-5}$	0
cHq1	-0.00206	-0.00206	0	0.0001091	0.0001091	0
cHq3	0.0005287	0.0005287	0	$3.384 \cdot 10^{-5}$	$3.384 \cdot 10^{-5}$	0
cHu	0.0004839	0.0004839	0	$2.29 \cdot 10^{-5}$	$2.29 \cdot 10^{-5}$	0
c111	0.0004056	0.0004056	0	$1.948 \cdot 10^{-5}$	$1.948 \cdot 10^{-5}$	0
cqq1	0.09855	0.09855	0	0.9022	0.9022	0
cqq11	0.627	0.627	0	0.9022	0.9022	0
cqq3	0.09855	0.09855	0	0.9022	0.9022	0
cqq31	0.627	0.627	0	0.9022	0.9022	0
cqu1	0.0005178	0.0005178	0	0.01849	0.01849	0
cqu8	0.01218	0.01218	0	0.004108	0.004108	0
cuBRe	$-2.39 \cdot 10^{-7}$	$-2.39 \cdot 10^{-7}$	0	$6.797 \cdot 10^{-8}$	$6.797 \cdot 10^{-8}$	0
cuGRe	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	0	$7.383 \cdot 10^{-7}$	$7.383 \cdot 10^{-7}$	0
cuHRe	$-5.172 \cdot 10^{-16}$	$-5.172 \cdot 10^{-16}$	0	$3.107 \cdot 10^{-17}$	$3.107 \cdot 10^{-17}$	0
cuWRe	$-4.205 \cdot 10^{-7}$	$-4.205 \cdot 10^{-7}$	0	$1.192 \cdot 10^{-7}$	$1.192 \cdot 10^{-7}$	0
cuu	0.1865	0.1865	0	3.268	3.268	0
cuu1	2.214	2.214	0	3.268	3.268	0
sm	0	0	0	0.4926	0.4926	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	0.0005393	0.0005393	0	$1.887 \cdot 10^{-6}$	$1.887 \cdot 10^{-6}$	0
cHWB	0.0004439	0.0004439	0	$6.334 \cdot 10^{-5}$	$6.334 \cdot 10^{-5}$	0
cH13	0.04454	0.04454	0	0.00135	0.00135	0
cHq1	0.001912	0.001912	0	$4.045 \cdot 10^{-5}$	$4.045 \cdot 10^{-5}$	0

cHq3	-0.03587	-0.03587	0	0.0006477	0.0006477	0
cHu	-0.001493	-0.001493	0	0.0001475	0.0001475	0
cll1	-0.02227	-0.02227	0	0.0003374	0.0003374	0
cqq1	-3.241	-3.241	0	4.991	4.991	0
cqq11	-3.241	-3.241	0	4.991	4.991	0
cqq3	-3.241	-3.241	0	4.991	4.991	0
cqq31	-3.241	-3.241	0	4.991	4.991	0
cqu1	-0.03973	-0.03973	0	3.231	3.231	0
cqu8	-0.8683	-0.8683	0	0.718	0.718	0
cuBRe	$-1.403 \cdot 10^{-11}$	$-1.403 \cdot 10^{-11}$	0	$2.652 \cdot 10^{-12}$	$2.652 \cdot 10^{-12}$	0
cuGRe	$-1.022 \cdot 10^{-10}$	$-1.022 \cdot 10^{-10}$	0	$1.475 \cdot 10^{-11}$	$1.475 \cdot 10^{-11}$	0
cuHRe	$2.555 \cdot 10^{-11}$	$2.555 \cdot 10^{-11}$	0	$2.025 \cdot 10^{-22}$	$2.025 \cdot 10^{-22}$	0
cuWRe	$-1.511 \cdot 10^{-11}$	$-1.511 \cdot 10^{-11}$	0	$4.593 \cdot 10^{-12}$	$4.593 \cdot 10^{-12}$	0
cuu	-0.03741	-0.03741	0	0.4954	0.4954	0
cuu1	-0.03741	-0.03741	0	0.4954	0.4954	0
sm	0	0	0	15.29	15.29	0

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

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	-0.04652	-0.04652	0	0.04879	0.04879	0
cHDD	-2.496	-2.496	0	0.05428	0.05428	0
cHW	-0.3202	-0.3202	0	1.421	1.421	0
cHWB	-4.497	-4.497	0	0.4229	0.4229	0
cHl3	-13.65	-13.65	0	1.289	1.289	0
cW	-0.07539	-0.07539	0	15.09	15.09	0
cll1	8.222	8.222	0	0.3955	0.3955	0
sm	0	0	0	41.23	41.23	0

## 1.88 $zz \rightarrow zz$

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
cHB	0.001814	0.001814	0	0.08203	0.08203	0
cHDD	0.004891	0.004891	0	$7.412 \cdot 10^{-5}$	$7.412 \cdot 10^{-5}$	0
cHW	0.005915	0.005915	0	0.9236	0.9236	0
cHWB	0.003286	0.003286	0	0.2692	0.2692	0
cH13	-0.01937	-0.01937	0	0.001174	0.001174	0
c111	0.009684	0.009684	0	0.0002935	0.0002935	0
sm	0	0	0	0.07987	0.07987	0

## 2 By parameter point

### 2.1 cG

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow gg$	$-6.506 \cdot 10^{-10}$	$-6.506 \cdot 10^{-10}$	$1.43 \cdot 10^{-5}$	99.6	99.6	0
$gg \rightarrow ggg$	-0.001347	-0.001347	0	0.007036	0.007036	0
$gg \rightarrow t\bar{t}$	-0.08191	-0.08191	0	1.868	1.868	0
$gg \rightarrow u\bar{u}$	$-9.621 \cdot 10^{-12}$	$-9.621 \cdot 10^{-12}$	0	2.021	2.021	0

### 2.2 cH

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow HH$	-1.128	-1.128	0	1.976	1.976	0
$HH \rightarrow HHH$	$5.65 \cdot 10^{-6}$	$5.65 \cdot 10^{-6}$	0	$6.056 \cdot 10^{-5}$	$6.056 \cdot 10^{-5}$	0



$HH \rightarrow H\tau^+\tau^-$	$-6.527 \cdot 10^{-10}$	$-6.527 \cdot 10^{-10}$	0	$1.133 \cdot 10^{-9}$	$1.133 \cdot 10^{-9}$	0
$HH \rightarrow Hb\bar{b}$	$-4.047 \cdot 10^{-9}$	$-4.047 \cdot 10^{-9}$	0	$1.174 \cdot 10^{-8}$	$1.174 \cdot 10^{-8}$	0
$HH \rightarrow Hs\bar{s}$	$-3.423 \cdot 10^{-12}$	$-3.423 \cdot 10^{-12}$	0	$7.705 \cdot 10^{-12}$	$7.705 \cdot 10^{-12}$	0
$HH \rightarrow Ht\bar{t}$	$6.654 \cdot 10^{-5}$	$6.654 \cdot 10^{-5}$	0	$1.685 \cdot 10^{-5}$	$1.685 \cdot 10^{-5}$	0
$HH \rightarrow Hu\bar{u}$	$-1.154 \cdot 10^{-15}$	$-1.154 \cdot 10^{-15}$	0	$3.88 \cdot 10^{-15}$	$3.88 \cdot 10^{-15}$	0
$HH \rightarrow Hzz$	$-0.0001384$	$-0.0001384$	0	$5.69 \cdot 10^{-5}$	$5.69 \cdot 10^{-5}$	0
$HH \rightarrow W^+W^-$	15.26	15.26	0	0.1331	0.1331	0
$HH \rightarrow W^+W^-\gamma$	$-3.462 \cdot 10^{-7}$	$-3.462 \cdot 10^{-7}$	0	$4.117 \cdot 10^{-7}$	$4.117 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	$1.892 \cdot 10^{-6}$	$1.892 \cdot 10^{-6}$	0	$3.098 \cdot 10^{-6}$	$3.098 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$8.288 \cdot 10^{-10}$	$8.288 \cdot 10^{-10}$	0	$2.302 \cdot 10^{-9}$	$2.302 \cdot 10^{-9}$	0
$HH \rightarrow W^-u\bar{d}$	$1.738 \cdot 10^{-7}$	$1.738 \cdot 10^{-7}$	0	$1.063 \cdot 10^{-7}$	$1.063 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$4.119 \cdot 10^{-8}$	$4.119 \cdot 10^{-8}$	0	$5.64 \cdot 10^{-9}$	$5.64 \cdot 10^{-9}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$1.782 \cdot 10^{-8}$	$1.782 \cdot 10^{-8}$	0	$2.843 \cdot 10^{-9}$	$2.843 \cdot 10^{-9}$	0
$HH \rightarrow zc\bar{c}$	$5.309 \cdot 10^{-7}$	$5.309 \cdot 10^{-7}$	0	$1.362 \cdot 10^{-8}$	$1.362 \cdot 10^{-8}$	0
$HH \rightarrow zd\bar{d}$	$8.324 \cdot 10^{-9}$	$8.324 \cdot 10^{-9}$	0	$6.829 \cdot 10^{-11}$	$6.829 \cdot 10^{-11}$	0
$HH \rightarrow ze^+e^-$	$-1.187 \cdot 10^{-10}$	$-1.187 \cdot 10^{-10}$	0	$2.381 \cdot 10^{-11}$	$2.381 \cdot 10^{-11}$	0
$HH \rightarrow zt\bar{t}$	$-2.363 \cdot 10^{-6}$	$-2.363 \cdot 10^{-6}$	0	$1.571 \cdot 10^{-7}$	$1.571 \cdot 10^{-7}$	0
$HH \rightarrow zz$	0.01317	0.01317	0	0.06606	0.06606	0
$W^+W^- \rightarrow Hb\bar{b}$	$2.519 \cdot 10^{-9}$	$2.519 \cdot 10^{-9}$	0	$6.958 \cdot 10^{-10}$	$6.958 \cdot 10^{-10}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$1.049 \cdot 10^{-11}$	$1.049 \cdot 10^{-11}$	0	$5.692 \cdot 10^{-12}$	$5.692 \cdot 10^{-12}$	0
$W^+W^- \rightarrow Hdd\bar{d}$	$2.319 \cdot 10^{-17}$	$2.319 \cdot 10^{-17}$	0	$6.719 \cdot 10^{-17}$	$6.719 \cdot 10^{-17}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$1.377 \cdot 10^{-7}$	$1.377 \cdot 10^{-7}$	0	$1.065 \cdot 10^{-7}$	$1.065 \cdot 10^{-7}$	0

## 2.3 cHB

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Hzz$	$-4.712 \cdot 10^{-6}$	$-4.712 \cdot 10^{-6}$	0	$1.233 \cdot 10^{-6}$	$1.233 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-\gamma$	$9.87 \cdot 10^{-6}$	$9.87 \cdot 10^{-6}$	0	$1.554 \cdot 10^{-6}$	$1.554 \cdot 10^{-6}$	0

$HH \rightarrow z\bar{b}b$	$-4.936 \cdot 10^{-7}$	$-4.936 \cdot 10^{-7}$	0	$6.341 \cdot 10^{-7}$	$6.341 \cdot 10^{-7}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$1.001 \cdot 10^{-7}$	$1.001 \cdot 10^{-7}$	0	$5.082 \cdot 10^{-8}$	$5.082 \cdot 10^{-8}$	0
$HH \rightarrow zc\bar{c}$	$5.022 \cdot 10^{-8}$	$5.022 \cdot 10^{-8}$	0	$6.762 \cdot 10^{-7}$	$6.762 \cdot 10^{-7}$	0
$HH \rightarrow zd\bar{d}$	$5.668 \cdot 10^{-8}$	$5.668 \cdot 10^{-8}$	0	$5.162 \cdot 10^{-7}$	$5.162 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	$-3.558 \cdot 10^{-7}$	$-3.558 \cdot 10^{-7}$	0	$5.318 \cdot 10^{-6}$	$5.318 \cdot 10^{-6}$	0
$HH \rightarrow zt\bar{t}$	$-1.43 \cdot 10^{-6}$	$-1.43 \cdot 10^{-6}$	0	$2.225 \cdot 10^{-6}$	$2.225 \cdot 10^{-6}$	0
$HH \rightarrow zz$	0.06346	0.06346	0	0.2963	0.2963	0
$HW^+ \rightarrow \gamma t\bar{b}$	$4.479 \cdot 10^{-7}$	$4.479 \cdot 10^{-7}$	0	$1.211 \cdot 10^{-7}$	$1.211 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$3.837 \cdot 10^{-8}$	$3.837 \cdot 10^{-8}$	0	$9.198 \cdot 10^{-9}$	$9.198 \cdot 10^{-9}$	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$5.902 \cdot 10^{-9}$	$5.902 \cdot 10^{-9}$	0	$4.858 \cdot 10^{-8}$	$4.858 \cdot 10^{-8}$	0
$H\gamma \rightarrow b\bar{b}$	$-1.241 \cdot 10^{-8}$	$-1.241 \cdot 10^{-8}$	0	0.005033	0.005033	0
$H\gamma \rightarrow c\bar{c}$	$-3.533 \cdot 10^{-5}$	$-3.533 \cdot 10^{-5}$	0	0.03199	0.03199	0
$H\gamma \rightarrow d\bar{d}$	$-1.068 \cdot 10^{-13}$	$-1.068 \cdot 10^{-13}$	0	0.005114	0.005114	0
$H\gamma \rightarrow e^+e^-$	$-1.229 \cdot 10^{-14}$	$-1.229 \cdot 10^{-14}$	0	0.0152	0.0152	0
$H\gamma \rightarrow t\bar{t}$	-0.2098	-0.2098	0	0.0296	0.0296	0
$H z \rightarrow \mu^+\mu^-$	0.0004697	0.0004697	0	0.004896	0.004896	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	0.001061	0.001061	0	0.0009033	0.0009033	0
$H z \rightarrow b\bar{b}$	0.0008327	0.0008327	0	0.001021	0.001021	0
$H z \rightarrow s\bar{s}$	0.001543	0.001543	0	0.001871	0.001871	0
$H z \rightarrow t\bar{t}$	-0.02414	-0.02414	0	0.007845	0.007845	0
$H z \rightarrow u\bar{u}$	0.0004304	0.0004304	0	0.00361	0.00361	0
$W^+W^- \rightarrow Hb\bar{b}$	$-2.956 \cdot 10^{-8}$	$-2.956 \cdot 10^{-8}$	0	$1.331 \cdot 10^{-10}$	$1.331 \cdot 10^{-10}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$5.743 \cdot 10^{-9}$	$5.743 \cdot 10^{-9}$	0	$4.845 \cdot 10^{-10}$	$4.845 \cdot 10^{-10}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-8.157 \cdot 10^{-9}$	$-8.157 \cdot 10^{-9}$	0	$1.864 \cdot 10^{-10}$	$1.864 \cdot 10^{-10}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$-1.303 \cdot 10^{-8}$	$-1.303 \cdot 10^{-8}$	0	$3.701 \cdot 10^{-10}$	$3.701 \cdot 10^{-10}$	0
$W^+W^- \rightarrow \gamma\gamma$	-0.04599	-0.04599	0	0.2695	0.2695	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$-1.331 \cdot 10^{-7}$	$-1.331 \cdot 10^{-7}$	0	$6.739 \cdot 10^{-7}$	$6.739 \cdot 10^{-7}$	0
$\gamma W^+ \rightarrow zW^+$	-0.06969	-0.06969	0	0.1722	0.1722	0
$b\bar{b} \rightarrow \gamma\gamma$	$-5.202 \cdot 10^{-7}$	$-5.202 \cdot 10^{-7}$	0	$7.062 \cdot 10^{-6}$	$7.062 \cdot 10^{-6}$	0

$zz \rightarrow W^+W^-$	-0.04652	-0.04652	0	0.04879	0.04879	0
$zz \rightarrow zz$	0.001814	0.001814	0	0.08203	0.08203	0

## 2.4 cHDD

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	-0.1141	-0.1141	0	0.01481	0.01481	0
$HH \rightarrow HHH$	$6.734 \cdot 10^{-7}$	$6.734 \cdot 10^{-7}$	0	$3.785 \cdot 10^{-7}$	$3.785 \cdot 10^{-7}$	0
$HH \rightarrow H\tau^+\tau^-$	$-1.756 \cdot 10^{-10}$	$-1.756 \cdot 10^{-10}$	0	$3.75 \cdot 10^{-11}$	$3.75 \cdot 10^{-11}$	0
$HH \rightarrow Hb\bar{b}$	$-2.679 \cdot 10^{-10}$	$-2.679 \cdot 10^{-10}$	0	$1.498 \cdot 10^{-10}$	$1.498 \cdot 10^{-10}$	0
$HH \rightarrow Hs\bar{s}$	$-4.261 \cdot 10^{-13}$	$-4.261 \cdot 10^{-13}$	0	$1.626 \cdot 10^{-13}$	$1.626 \cdot 10^{-13}$	0
$HH \rightarrow Ht\bar{t}$	$6.779 \cdot 10^{-6}$	$6.779 \cdot 10^{-6}$	0	$4.856 \cdot 10^{-7}$	$4.856 \cdot 10^{-7}$	0
$HH \rightarrow Hu\bar{u}$	$-3.159 \cdot 10^{-16}$	$-3.159 \cdot 10^{-16}$	0	$9.856 \cdot 10^{-17}$	$9.856 \cdot 10^{-17}$	0
$HH \rightarrow Hzz$	$5.589 \cdot 10^{-6}$	$5.589 \cdot 10^{-6}$	0	$2.534 \cdot 10^{-6}$	$2.534 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	-0.8941	-0.8941	0	0.1503	0.1503	0
$HH \rightarrow W^+W^-\gamma$	$-2.732 \cdot 10^{-5}$	$-2.732 \cdot 10^{-5}$	0	$2.738 \cdot 10^{-6}$	$2.738 \cdot 10^{-6}$	0
$HH \rightarrow W^+\bar{t}b$	$1.255 \cdot 10^{-6}$	$1.255 \cdot 10^{-6}$	0	$8.633 \cdot 10^{-6}$	$8.633 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-1.75 \cdot 10^{-6}$	$-1.75 \cdot 10^{-6}$	0	$2.686 \cdot 10^{-7}$	$2.686 \cdot 10^{-7}$	0
$HH \rightarrow W^-u\bar{d}$	$-1.05 \cdot 10^{-7}$	$-1.05 \cdot 10^{-7}$	0	$9.439 \cdot 10^{-9}$	$9.439 \cdot 10^{-9}$	0
$HH \rightarrow z\bar{b}b$	$-1.224 \cdot 10^{-7}$	$-1.224 \cdot 10^{-7}$	0	$4.161 \cdot 10^{-7}$	$4.161 \cdot 10^{-7}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-7.077 \cdot 10^{-9}$	$-7.077 \cdot 10^{-9}$	0	$1.2 \cdot 10^{-9}$	$1.2 \cdot 10^{-9}$	0
$HH \rightarrow zc\bar{c}$	$-3.867 \cdot 10^{-9}$	$-3.867 \cdot 10^{-9}$	0	$4.164 \cdot 10^{-9}$	$4.164 \cdot 10^{-9}$	0
$HH \rightarrow zd\bar{d}$	$-4.008 \cdot 10^{-8}$	$-4.008 \cdot 10^{-8}$	0	$3.362 \cdot 10^{-8}$	$3.362 \cdot 10^{-8}$	0
$HH \rightarrow ze^+e^-$	$-1.91 \cdot 10^{-8}$	$-1.91 \cdot 10^{-8}$	0	$4.701 \cdot 10^{-7}$	$4.701 \cdot 10^{-7}$	0
$HH \rightarrow zt\bar{t}$	$-2.677 \cdot 10^{-5}$	$-2.677 \cdot 10^{-5}$	0	$3.515 \cdot 10^{-5}$	$3.515 \cdot 10^{-5}$	0
$HH \rightarrow zz$	-3.316	-3.316	0	0.3456	0.3456	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-6.871 \cdot 10^{-7}$	$-6.871 \cdot 10^{-7}$	0	$2.929 \cdot 10^{-8}$	$2.929 \cdot 10^{-8}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.685 \cdot 10^{-8}$	$-1.685 \cdot 10^{-8}$	0	$6.786 \cdot 10^{-10}$	$6.786 \cdot 10^{-10}$	0

$HW^+ \rightarrow u\bar{d}$	-0.002814	-0.002814	0	0.0001134	0.0001134	0
$HW^- \rightarrow t\bar{b}$	-0.9171	-0.9171	0	0.06045	0.06045	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-1.882 \cdot 10^{-10}$	$-1.882 \cdot 10^{-10}$	0	$7.58 \cdot 10^{-12}$	$7.58 \cdot 10^{-12}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	-0.00102	-0.00102	0	$4.108 \cdot 10^{-5}$	$4.108 \cdot 10^{-5}$	0
$H\gamma \rightarrow b\bar{b}$	$-2.294 \cdot 10^{-6}$	$-2.294 \cdot 10^{-6}$	0	$1.738 \cdot 10^{-8}$	$1.738 \cdot 10^{-8}$	0
$H\gamma \rightarrow c\bar{c}$	$-7.925 \cdot 10^{-6}$	$-7.925 \cdot 10^{-6}$	0	$6.006 \cdot 10^{-8}$	$6.006 \cdot 10^{-8}$	0
$H\gamma \rightarrow d\bar{d}$	$-2.91 \cdot 10^{-12}$	$-2.91 \cdot 10^{-12}$	0	$2.205 \cdot 10^{-14}$	$2.205 \cdot 10^{-14}$	0
$H\gamma \rightarrow e^+ e^-$	$-1.046 \cdot 10^{-13}$	$-1.046 \cdot 10^{-13}$	0	$7.929 \cdot 10^{-16}$	$7.929 \cdot 10^{-16}$	0
$H\gamma \rightarrow t\bar{t}$	-0.04405	-0.04405	0	0.0003338	0.0003338	0
$H z \rightarrow \mu^+ \mu^-$	$-7.465 \cdot 10^{-6}$	$-7.465 \cdot 10^{-6}$	0	$2.314 \cdot 10^{-6}$	$2.314 \cdot 10^{-6}$	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	$1.201 \cdot 10^{-19}$	$1.201 \cdot 10^{-19}$	0	$8.626 \cdot 10^{-35}$	$8.626 \cdot 10^{-35}$	0
$H z \rightarrow b\bar{b}$	-0.0001872	-0.0001872	0	$1.074 \cdot 10^{-5}$	$1.074 \cdot 10^{-5}$	0
$H z \rightarrow s\bar{s}$	$-4.048 \cdot 10^{-5}$	$-4.048 \cdot 10^{-5}$	0	$4.04 \cdot 10^{-7}$	$4.04 \cdot 10^{-7}$	0
$H z \rightarrow t\bar{t}$	-0.08826	-0.08826	0	0.01344	0.01344	0
$H z \rightarrow u\bar{u}$	-0.0001927	-0.0001927	0	$6.937 \cdot 10^{-6}$	$6.937 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$-5.323 \cdot 10^{-6}$	$-5.323 \cdot 10^{-6}$	0	$5.068 \cdot 10^{-7}$	$5.068 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-1.561 \cdot 10^{-7}$	$-1.561 \cdot 10^{-7}$	0	$1.353 \cdot 10^{-8}$	$1.353 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-1.814 \cdot 10^{-7}$	$-1.814 \cdot 10^{-7}$	0	$1.573 \cdot 10^{-8}$	$1.573 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-1.836 \cdot 10^{-6}$	$-1.836 \cdot 10^{-6}$	0	$2.352 \cdot 10^{-7}$	$2.352 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow W^+ W^-$	-9.402	-9.402	0	0.5094	0.5094	0
$\bar{b} t \rightarrow \bar{d} u$	-0.0005337	-0.0005337	0	$1.163 \cdot 10^{-5}$	$1.163 \cdot 10^{-5}$	0
$\gamma W^+ \rightarrow z W^+$	-0.1876	-0.1876	0	0.002668	0.002668	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	-0.0004668	-0.0004668	0	$1.372 \cdot 10^{-5}$	$1.372 \cdot 10^{-5}$	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	$-2.314 \cdot 10^{-5}$	$-2.314 \cdot 10^{-5}$	0	$3.507 \cdot 10^{-7}$	$3.507 \cdot 10^{-7}$	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0007142	-0.0007142	0	$1.082 \cdot 10^{-5}$	$1.082 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \mu^+ \mu^-$	-0.0001967	-0.0001967	0	$5.301 \cdot 10^{-6}$	$5.301 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e \bar{\nu}_e$	-0.0003144	-0.0003144	0	$6.029 \cdot 10^{-6}$	$6.029 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.005538	0.005538	0	$2.178 \cdot 10^{-5}$	$2.178 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow d\bar{d}$	-0.000458	-0.000458	0	$9.642 \cdot 10^{-6}$	$9.642 \cdot 10^{-6}$	0

$b\bar{b} \rightarrow t\bar{t}$	-0.07378	-0.07378	0	0.002856	0.002856	0
$b\bar{b} \rightarrow u\bar{u}$	-0.0001604	-0.0001604	0	$3.844 \cdot 10^{-6}$	$3.844 \cdot 10^{-6}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	-0.001104	-0.001104	0	$2.407 \cdot 10^{-5}$	$2.407 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-5.706 \cdot 10^{-5}$	$-5.706 \cdot 10^{-5}$	0	$1.623 \cdot 10^{-6}$	$1.623 \cdot 10^{-6}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	-0.0002307	-0.0002307	0	$5.029 \cdot 10^{-6}$	$5.029 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.0008834	-0.0008834	0	$2.078 \cdot 10^{-5}$	$2.078 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow e^+ e^-$	-0.0001784	-0.0001784	0	$4.811 \cdot 10^{-6}$	$4.811 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow s\bar{s}$	$-4.874 \cdot 10^{-5}$	$-4.874 \cdot 10^{-5}$	0	$1.071 \cdot 10^{-6}$	$1.071 \cdot 10^{-6}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	-0.005258	-0.005258	0	0.0002542	0.0002542	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	-0.001473	-0.001473	0	$3.21 \cdot 10^{-5}$	$3.21 \cdot 10^{-5}$	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	-0.0009354	-0.0009354	0	$3.213 \cdot 10^{-5}$	$3.213 \cdot 10^{-5}$	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	0.0002645	0.0002645	0	$2.122 \cdot 10^{-6}$	$2.122 \cdot 10^{-6}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$9.667 \cdot 10^{-5}$	$9.667 \cdot 10^{-5}$	0	$1.912 \cdot 10^{-6}$	$1.912 \cdot 10^{-6}$	0
$e^+ e^- \rightarrow e^+ e^-$	0.0004413	0.0004413	0	$2.926 \cdot 10^{-6}$	$2.926 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-1.565 \cdot 10^{-5}$	$-1.565 \cdot 10^{-5}$	0	$3.633 \cdot 10^{-7}$	$3.633 \cdot 10^{-7}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.01227	0.01227	0	$7.433 \cdot 10^{-5}$	$7.433 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.0002564	-0.0002564	0	$6.547 \cdot 10^{-6}$	$6.547 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-9.53 \cdot 10^{-5}$	$-9.53 \cdot 10^{-5}$	0	$2.444 \cdot 10^{-6}$	$2.444 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-6.981 \cdot 10^{-5}$	$-6.981 \cdot 10^{-5}$	0	$1.74 \cdot 10^{-6}$	$1.74 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow d\bar{d}$	-0.0001538	-0.0001538	0	$3.828 \cdot 10^{-6}$	$3.828 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0003036	-0.0003036	0	$7.315 \cdot 10^{-6}$	$7.315 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.05145	0.05145	0	0.0009692	0.0009692	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	-0.0001729	-0.0001729	0	$3.769 \cdot 10^{-6}$	$3.769 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.0005455	-0.0005455	0	$1.189 \cdot 10^{-5}$	$1.189 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.0006387	0.0006387	0	$1.113 \cdot 10^{-5}$	$1.113 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	-0.0002116	-0.0002116	0	$5.306 \cdot 10^{-6}$	$5.306 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.0007451	-0.0007451	0	$1.757 \cdot 10^{-5}$	$1.757 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.0005393	0.0005393	0	$1.887 \cdot 10^{-6}$	$1.887 \cdot 10^{-6}$	0
$zz \rightarrow W^+ W^-$	-2.496	-2.496	0	0.05428	0.05428	0

$zz \rightarrow zz$	0.004891	0.004891	0	$7.412 \cdot 10^{-5}$	$7.412 \cdot 10^{-5}$	0
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## 2.5 cHG

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$gg \rightarrow t\bar{t}$	-0.05294	-0.05294	0	0.04069	0.04069	0
$gg \rightarrow u\bar{u}$	$-8.689 \cdot 10^{-12}$	$-8.689 \cdot 10^{-12}$	0	$7.223 \cdot 10^{-12}$	$7.223 \cdot 10^{-12}$	0

## 2.6 cHW

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Hzz$	$-2.328 \cdot 10^{-5}$	$-2.328 \cdot 10^{-5}$	0	$2.298 \cdot 10^{-5}$	$2.298 \cdot 10^{-5}$	0
$HH \rightarrow W^+W^-$	2.137	2.137	0	15.14	15.14	0
$HH \rightarrow W^+W^-\gamma$	$7.903 \cdot 10^{-7}$	$7.903 \cdot 10^{-7}$	0	$6.777 \cdot 10^{-5}$	$6.777 \cdot 10^{-5}$	0
$HH \rightarrow W^+\bar{t}b$	$-1.383 \cdot 10^{-5}$	$-1.383 \cdot 10^{-5}$	0	$2.41 \cdot 10^{-5}$	$2.41 \cdot 10^{-5}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$4.747 \cdot 10^{-7}$	$4.747 \cdot 10^{-7}$	0	$2.948 \cdot 10^{-6}$	$2.948 \cdot 10^{-6}$	0
$HH \rightarrow W^-u\bar{d}$	$8.003 \cdot 10^{-6}$	$8.003 \cdot 10^{-6}$	0	$5.561 \cdot 10^{-5}$	$5.561 \cdot 10^{-5}$	0
$HH \rightarrow z\bar{b}b$	$-4.327 \cdot 10^{-7}$	$-4.327 \cdot 10^{-7}$	0	$4.194 \cdot 10^{-6}$	$4.194 \cdot 10^{-6}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$2.777 \cdot 10^{-7}$	$2.777 \cdot 10^{-7}$	0	$1.319 \cdot 10^{-6}$	$1.319 \cdot 10^{-6}$	0
$HH \rightarrow z c\bar{c}$	$2.143 \cdot 10^{-6}$	$2.143 \cdot 10^{-6}$	0	$1.09 \cdot 10^{-5}$	$1.09 \cdot 10^{-5}$	0
$HH \rightarrow z d\bar{d}$	$8.253 \cdot 10^{-7}$	$8.253 \cdot 10^{-7}$	0	$5.624 \cdot 10^{-7}$	$5.624 \cdot 10^{-7}$	0
$HH \rightarrow ze^+e^-$	$-1.275 \cdot 10^{-9}$	$-1.275 \cdot 10^{-9}$	0	$1.82 \cdot 10^{-7}$	$1.82 \cdot 10^{-7}$	0
$HH \rightarrow zt\bar{t}$	$-1.011 \cdot 10^{-5}$	$-1.011 \cdot 10^{-5}$	0	$1.34 \cdot 10^{-6}$	$1.34 \cdot 10^{-6}$	0
$HH \rightarrow zz$	0.01942	0.01942	0	2.202	2.202	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-5.835 \cdot 10^{-6}$	$-5.835 \cdot 10^{-6}$	0	$5.208 \cdot 10^{-7}$	$5.208 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-3.376 \cdot 10^{-7}$	$-3.376 \cdot 10^{-7}$	0	$7.724 \cdot 10^{-6}$	$7.724 \cdot 10^{-6}$	0
$HW^+ \rightarrow u\bar{d}$	0.01232	0.01232	0	0.0586	0.0586	0

$HW^- \rightarrow \bar{t}b$	-0.05226	-0.05226	0	0.06312	0.06312	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$1.392 \cdot 10^{-8}$	$1.392 \cdot 10^{-8}$	0	$8.548 \cdot 10^{-8}$	$8.548 \cdot 10^{-8}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	0.007131	0.007131	0	0.03392	0.03392	0
$H\gamma \rightarrow b\bar{b}$	$-2.886 \cdot 10^{-6}$	$-2.886 \cdot 10^{-6}$	0	0.01062	0.01062	0
$H\gamma \rightarrow c\bar{c}$	$-4.832 \cdot 10^{-6}$	$-4.832 \cdot 10^{-6}$	0	0.01495	0.01495	0
$H\gamma \rightarrow d\bar{d}$	$-3.894 \cdot 10^{-11}$	$-3.894 \cdot 10^{-11}$	0	0.01534	0.01534	0
$H\gamma \rightarrow e^+e^-$	$-4.569 \cdot 10^{-13}$	$-4.569 \cdot 10^{-13}$	0	0.005076	0.005076	0
$H\gamma \rightarrow t\bar{t}$	-0.009597	-0.009597	0	0.009664	0.009664	0
$H\gamma \rightarrow \mu^+\mu^-$	0.002337	0.002337	0	0.01217	0.01217	0
$H\gamma \rightarrow \nu_\tau \bar{\nu}_\tau$	0.002734	0.002734	0	0.00764	0.00764	0
$H\gamma \rightarrow b\bar{b}$	0.006016	0.006016	0	0.01998	0.01998	0
$H\gamma \rightarrow s\bar{s}$	0.006469	0.006469	0	0.02137	0.02137	0
$H\gamma \rightarrow t\bar{t}$	-0.1344	-0.1344	0	0.03934	0.03934	0
$H\gamma \rightarrow u\bar{u}$	0.007589	0.007589	0	0.03068	0.03068	0
$W^+W^- \rightarrow Hb\bar{b}$	$-2.117 \cdot 10^{-6}$	$-2.117 \cdot 10^{-6}$	0	$1.279 \cdot 10^{-6}$	$1.279 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-1.317 \cdot 10^{-7}$	$-1.317 \cdot 10^{-7}$	0	$7.121 \cdot 10^{-8}$	$7.121 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-1.07 \cdot 10^{-7}$	$-1.07 \cdot 10^{-7}$	0	$2.938 \cdot 10^{-8}$	$2.938 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$4.147 \cdot 10^{-6}$	$4.147 \cdot 10^{-6}$	0	$1.885 \cdot 10^{-5}$	$1.885 \cdot 10^{-5}$	0
$W^+W^- \rightarrow W^+W^-$	0.1966	0.1966	0	2.216	2.216	0
$W^+W^- \rightarrow \gamma\gamma$	-0.009765	-0.009765	0	0.02503	0.02503	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$4.641 \cdot 10^{-9}$	$4.641 \cdot 10^{-9}$	0	$2.698 \cdot 10^{-9}$	$2.698 \cdot 10^{-9}$	0
$\gamma W^+ \rightarrow zW^+$	0.02705	0.02705	0	0.02045	0.02045	0
$b\bar{b} \rightarrow \gamma\gamma$	$-2.102 \cdot 10^{-7}$	$-2.102 \cdot 10^{-7}$	0	$6.558 \cdot 10^{-7}$	$6.558 \cdot 10^{-7}$	0
$zz \rightarrow W^+W^-$	-0.3202	-0.3202	0	1.421	1.421	0
$zz \rightarrow zz$	0.005915	0.005915	0	0.9236	0.9236	0

## 2.7 cHWB

interference

square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Hzz$	$-8.535 \cdot 10^{-6}$	$-8.535 \cdot 10^{-6}$	0	$4.047 \cdot 10^{-6}$	$4.047 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	-10.14	-10.14	0	5.048	5.048	0
$HH \rightarrow W^+W^-\gamma$	-0.0001518	-0.0001518	0	$4.868 \cdot 10^{-5}$	$4.868 \cdot 10^{-5}$	0
$HH \rightarrow W^+\bar{t}b$	$-2.287 \cdot 10^{-5}$	$-2.287 \cdot 10^{-5}$	0	$1.907 \cdot 10^{-5}$	$1.907 \cdot 10^{-5}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-1.487 \cdot 10^{-5}$	$-1.487 \cdot 10^{-5}$	0	$7.101 \cdot 10^{-6}$	$7.101 \cdot 10^{-6}$	0
$HH \rightarrow W^-u\bar{d}$	$-3.672 \cdot 10^{-7}$	$-3.672 \cdot 10^{-7}$	0	$1.275 \cdot 10^{-7}$	$1.275 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$-1.371 \cdot 10^{-6}$	$-1.371 \cdot 10^{-6}$	0	$2.233 \cdot 10^{-6}$	$2.233 \cdot 10^{-6}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$1.813 \cdot 10^{-7}$	$1.813 \cdot 10^{-7}$	0	$1.668 \cdot 10^{-7}$	$1.668 \cdot 10^{-7}$	0
$HH \rightarrow zcc\bar{c}$	$1.961 \cdot 10^{-7}$	$1.961 \cdot 10^{-7}$	0	$6.593 \cdot 10^{-7}$	$6.593 \cdot 10^{-7}$	0
$HH \rightarrow zdd\bar{d}$	$1.44 \cdot 10^{-7}$	$1.44 \cdot 10^{-7}$	0	$1.718 \cdot 10^{-6}$	$1.718 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$-7.351 \cdot 10^{-7}$	$-7.351 \cdot 10^{-7}$	0	$4.18 \cdot 10^{-6}$	$4.18 \cdot 10^{-6}$	0
$HH \rightarrow zt\bar{t}$	$-4.826 \cdot 10^{-6}$	$-4.826 \cdot 10^{-6}$	0	$2.819 \cdot 10^{-6}$	$2.819 \cdot 10^{-6}$	0
$HH \rightarrow zz$	0.1149	0.1149	0	0.9724	0.9724	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-2.302 \cdot 10^{-6}$	$-2.302 \cdot 10^{-6}$	0	$2.514 \cdot 10^{-6}$	$2.514 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-8.295 \cdot 10^{-8}$	$-8.295 \cdot 10^{-8}$	0	$2.828 \cdot 10^{-6}$	$2.828 \cdot 10^{-6}$	0
$HW^+ \rightarrow u\bar{d}$	-0.005313	-0.005313	0	0.0003836	0.0003836	0
$HW^- \rightarrow t\bar{b}$	-2.07	-2.07	0	0.2822	0.2822	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$-5.341 \cdot 10^{-9}$	$-5.341 \cdot 10^{-9}$	0	$2.575 \cdot 10^{-7}$	$2.575 \cdot 10^{-7}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	-0.001926	-0.001926	0	0.0001391	0.0001391	0
$H\gamma \rightarrow b\bar{b}$	$3.795 \cdot 10^{-8}$	$3.795 \cdot 10^{-8}$	0	0.006296	0.006296	0
$H\gamma \rightarrow c\bar{c}$	$2.905 \cdot 10^{-5}$	$2.905 \cdot 10^{-5}$	0	0.01923	0.01923	0
$H\gamma \rightarrow d\bar{d}$	$3.264 \cdot 10^{-13}$	$3.264 \cdot 10^{-13}$	0	0.006396	0.006396	0
$H\gamma \rightarrow e^+e^-$	$7.108 \cdot 10^{-15}$	$7.108 \cdot 10^{-15}$	0	0.005176	0.005176	0
$H\gamma \rightarrow t\bar{t}$	0.1725	0.1725	0	0.01801	0.01801	0
$H z \rightarrow \mu^+\mu^-$	0.0009535	0.0009535	0	0.003487	0.003487	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	0.001922	0.001922	0	0.002964	0.002964	0
$H z \rightarrow b\bar{b}$	0.001516	0.001516	0	0.003371	0.003371	0
$H z \rightarrow s\bar{s}$	0.004244	0.004244	0	0.006114	0.006114	0



$H z \rightarrow t \bar{t}$	-0.1953	-0.1953	0	0.01982	0.01982	0
$H z \rightarrow u \bar{u}$	0.0008979	0.0008979	0	0.003766	0.003766	0
$W^+ W^- \rightarrow H b \bar{b}$	$-1.464 \cdot 10^{-5}$	$-1.464 \cdot 10^{-5}$	0	$2.71 \cdot 10^{-6}$	$2.71 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-3.051 \cdot 10^{-7}$	$-3.051 \cdot 10^{-7}$	0	$1.084 \cdot 10^{-7}$	$1.084 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-4.366 \cdot 10^{-7}$	$-4.366 \cdot 10^{-7}$	0	$7.98 \cdot 10^{-8}$	$7.98 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-5.86 \cdot 10^{-6}$	$-5.86 \cdot 10^{-6}$	0	$1.232 \cdot 10^{-6}$	$1.232 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow W^+ W^-$	-32.98	-32.98	0	5.162	5.162	0
$W^+ W^- \rightarrow \gamma \gamma$	-0.007545	-0.007545	0	0.09721	0.09721	0
$W^+ W^- \rightarrow \gamma \gamma \gamma$	$1.994 \cdot 10^{-6}$	$1.994 \cdot 10^{-6}$	0	$3.62 \cdot 10^{-7}$	$3.62 \cdot 10^{-7}$	0
$\bar{b} t \rightarrow \bar{d} u$	-0.001178	-0.001178	0	$5.669 \cdot 10^{-5}$	$5.669 \cdot 10^{-5}$	0
$\gamma W^+ \rightarrow z W^+$	0.01191	0.01191	0	0.5315	0.5315	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	-0.0004788	-0.0004788	0	0.0002372	0.0002372	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	$-2.943 \cdot 10^{-22}$	$-2.943 \cdot 10^{-22}$	0	$2.939 \cdot 10^{-39}$	$2.939 \cdot 10^{-39}$	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	$2.821 \cdot 10^{-19}$	$2.821 \cdot 10^{-19}$	0	$1.704 \cdot 10^{-36}$	$1.704 \cdot 10^{-36}$	0
$b \bar{b} \rightarrow \gamma \gamma$	$2.872 \cdot 10^{-7}$	$2.872 \cdot 10^{-7}$	0	$2.152 \cdot 10^{-6}$	$2.152 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	-0.0005093	-0.0005093	0	$4.736 \cdot 10^{-5}$	$4.736 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow \nu_e \bar{\nu}_e$	-0.0003114	-0.0003114	0	$5.938 \cdot 10^{-6}$	$5.938 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow b \bar{b}$	0.007782	0.007782	0	0.0001421	0.0001421	0
$b \bar{b} \rightarrow d \bar{d}$	-0.0007276	-0.0007276	0	$2.865 \cdot 10^{-5}$	$2.865 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow t \bar{t}$	-0.1728	-0.1728	0	0.01454	0.01454	0
$b \bar{b} \rightarrow u \bar{u}$	-0.0002965	-0.0002965	0	$3.437 \cdot 10^{-5}$	$3.437 \cdot 10^{-5}$	0
$b \bar{t} \rightarrow e^- \bar{\nu}_e$	-0.002437	-0.002437	0	0.0001173	0.0001173	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	-0.0001586	-0.0001586	0	$2.181 \cdot 10^{-5}$	$2.181 \cdot 10^{-5}$	0
$c \bar{s} \rightarrow \tau^+ \nu_\tau$	-0.0005091	-0.0005091	0	$2.45 \cdot 10^{-5}$	$2.45 \cdot 10^{-5}$	0
$d \bar{d} \rightarrow c \bar{c}$	-0.001893	-0.001893	0	0.0001127	0.0001127	0
$d \bar{d} \rightarrow e^+ e^-$	-0.0004598	-0.0004598	0	$4.347 \cdot 10^{-5}$	$4.347 \cdot 10^{-5}$	0
$d \bar{d} \rightarrow s \bar{s}$	$-2.765 \cdot 10^{-5}$	$-2.765 \cdot 10^{-5}$	0	$1.416 \cdot 10^{-5}$	$1.416 \cdot 10^{-5}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0.009439	0.009439	0	0.004576	0.004576	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	-0.00325	-0.00325	0	0.0001564	0.0001564	0

$e^+\nu_e \rightarrow e^+\nu_e$	0.0008871	0.0008871	0	0.0005572	0.0005572	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.0002921	-0.0002921	0	$7.38 \cdot 10^{-6}$	$7.38 \cdot 10^{-6}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.00017	-0.00017	0	$1.867 \cdot 10^{-5}$	$1.867 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.0004501	-0.0004501	0	$3.05 \cdot 10^{-6}$	$3.05 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$2.006 \cdot 10^{-5}$	$2.006 \cdot 10^{-5}$	0	$4.256 \cdot 10^{-6}$	$4.256 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.01707	0.01707	0	0.0003714	0.0003714	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.00049	-0.00049	0	$2.438 \cdot 10^{-5}$	$2.438 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.0002426	-0.0002426	0	$3.1 \cdot 10^{-5}$	$3.1 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.0003065	-0.0003065	0	$2.824 \cdot 10^{-5}$	$2.824 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	-0.0003134	-0.0003134	0	$3.918 \cdot 10^{-5}$	$3.918 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0006584	-0.0006584	0	$5.119 \cdot 10^{-5}$	$5.119 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.01375	0.01375	0	0.0004029	0.0004029	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	-0.0003815	-0.0003815	0	$1.837 \cdot 10^{-5}$	$1.837 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.001204	-0.001204	0	$5.794 \cdot 10^{-5}$	$5.794 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.001648	0.001648	0	0.0001264	0.0001264	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0003882	-0.0003882	0	$1.91 \cdot 10^{-5}$	$1.91 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.001668	-0.001668	0	0.0001473	0.0001473	0
$u\bar{u} \rightarrow u\bar{u}$	0.0004439	0.0004439	0	$6.334 \cdot 10^{-5}$	$6.334 \cdot 10^{-5}$	0
$zz \rightarrow W^+W^-$	-4.497	-4.497	0	0.4229	0.4229	0
$zz \rightarrow zz$	0.003286	0.003286	0	0.2692	0.2692	0

## 2.8 cHd

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\bar{b}b$	$-9.431 \cdot 10^{-8}$	$-9.431 \cdot 10^{-8}$	0	$1.784 \cdot 10^{-7}$	$1.784 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{d}d$	$-2.151 \cdot 10^{-7}$	$-2.151 \cdot 10^{-7}$	0	$6.644 \cdot 10^{-7}$	$6.644 \cdot 10^{-7}$	0
$H\bar{z} \rightarrow b\bar{b}$	-0.04361	-0.04361	0	1.05	1.05	0
$H\bar{z} \rightarrow s\bar{s}$	-0.009821	-0.009821	0	0.2299	0.2299	0

$W^+W^- \rightarrow Hb\bar{b}$	$-1.796 \cdot 10^{-8}$	$-1.796 \cdot 10^{-8}$	0	$1.646 \cdot 10^{-7}$	$1.646 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-5.438 \cdot 10^{-8}$	$-5.438 \cdot 10^{-8}$	0	$8.834 \cdot 10^{-7}$	$8.834 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-7.533 \cdot 10^{-5}$	$-7.533 \cdot 10^{-5}$	0	$3.721 \cdot 10^{-6}$	$3.721 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	$-2.951 \cdot 10^{-7}$	$-2.951 \cdot 10^{-7}$	0	$5.966 \cdot 10^{-8}$	$5.966 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.003033	0.003033	0	0.0004473	0.0004473	0
$b\bar{b} \rightarrow d\bar{d}$	$-5.556 \cdot 10^{-5}$	$-5.556 \cdot 10^{-5}$	0	$1.352 \cdot 10^{-5}$	$1.352 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	$-9.401 \cdot 10^{-5}$	$-9.401 \cdot 10^{-5}$	0	$5.323 \cdot 10^{-6}$	$5.323 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow u\bar{u}$	$1.427 \cdot 10^{-6}$	$1.427 \cdot 10^{-6}$	0	$1.249 \cdot 10^{-5}$	$1.249 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.000141	-0.000141	0	$6.48 \cdot 10^{-6}$	$6.48 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+e^-$	$-6.724 \cdot 10^{-5}$	$-6.724 \cdot 10^{-5}$	0	$3.493 \cdot 10^{-6}$	$3.493 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow s\bar{s}$	-0.0001274	-0.0001274	0	$6.056 \cdot 10^{-5}$	$6.056 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$-7.178 \cdot 10^{-5}$	$-7.178 \cdot 10^{-5}$	0	$1.397 \cdot 10^{-5}$	$1.397 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.007394	0.007394	0	0.0009144	0.0009144	0
$t\bar{t} \rightarrow d\bar{d}$	$1.392 \cdot 10^{-5}$	$1.392 \cdot 10^{-5}$	0	$1.292 \cdot 10^{-5}$	$1.292 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-2.376 \cdot 10^{-5}$	$-2.376 \cdot 10^{-5}$	0	$8.257 \cdot 10^{-6}$	$8.257 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow u\bar{d}$	0.0001329	0.0001329	0	$5.957 \cdot 10^{-5}$	$5.957 \cdot 10^{-5}$	0

## 2.9 cHe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow ze^+e^-$	$-3.543 \cdot 10^{-7}$	$-3.543 \cdot 10^{-7}$	0	$1.804 \cdot 10^{-6}$	$1.804 \cdot 10^{-6}$	0
$HZ \rightarrow \mu^+\mu^-$	-0.009121	-0.009121	0	0.07118	0.07118	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.0002101	0.0002101	0	$2.432 \cdot 10^{-5}$	$2.432 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$-3.898 \cdot 10^{-5}$	$-3.898 \cdot 10^{-5}$	0	$5.236 \cdot 10^{-6}$	$5.236 \cdot 10^{-6}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-1.998 \cdot 10^{-5}$	$-1.998 \cdot 10^{-5}$	0	$3.236 \cdot 10^{-6}$	$3.236 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+e^-$	$-2.89 \cdot 10^{-5}$	$-2.89 \cdot 10^{-5}$	0	$8.309 \cdot 10^{-7}$	$8.309 \cdot 10^{-7}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.004633	-0.004633	0	0.0003006	0.0003006	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.01575	-0.01575	0	0.001022	0.001022	0

$e^+\tau^- \rightarrow e^+\tau^-$	0.0022	0.0022	0	0.0001215	0.0001215	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.001533	-0.001533	0	$4.788 \cdot 10^{-5}$	$4.788 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.08141	-0.08141	0	0.02044	0.02044	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-9.262 \cdot 10^{-5}$	$-9.262 \cdot 10^{-5}$	0	$1.739 \cdot 10^{-6}$	$1.739 \cdot 10^{-6}$	0

## 2.10 cHl1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow z\nu_e\bar{\nu}_e$	$-1.425 \cdot 10^{-6}$	$-1.425 \cdot 10^{-6}$	0	$2.097 \cdot 10^{-6}$	$2.097 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	$1.67 \cdot 10^{-7}$	$1.67 \cdot 10^{-7}$	0	$4.102 \cdot 10^{-8}$	$4.102 \cdot 10^{-8}$	0
$HZ \rightarrow \mu^+\mu^-$	0.02165	0.02165	0	0.1481	0.1481	0
$HZ \rightarrow \nu_\tau\bar{\nu}_\tau$	-0.05393	-0.05393	0	0.1966	0.1966	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.001603	0.001603	0	$5.422 \cdot 10^{-5}$	$5.422 \cdot 10^{-5}$	0
$\nu_\tau\bar{\nu}_\tau \rightarrow \nu_\tau\bar{\nu}_\tau$	$-9.256 \cdot 10^{-5}$	$-9.256 \cdot 10^{-5}$	0	$5.611 \cdot 10^{-6}$	$5.611 \cdot 10^{-6}$	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.002857	-0.002857	0	0.0001732	0.0001732	0
$b\bar{b} \rightarrow \mu^+\mu^-$	0.0003089	0.0003089	0	$1.155 \cdot 10^{-5}$	$1.155 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	-0.000497	-0.000497	0	$1.506 \cdot 10^{-5}$	$1.506 \cdot 10^{-5}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$7.892 \cdot 10^{-5}$	$7.892 \cdot 10^{-5}$	0	$3.107 \cdot 10^{-6}$	$3.107 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+e^-$	0.0002799	0.0002799	0	$1.049 \cdot 10^{-5}$	$1.049 \cdot 10^{-5}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.002777	-0.002777	0	0.0003959	0.0003959	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.0006835	-0.0006835	0	$3.666 \cdot 10^{-5}$	$3.666 \cdot 10^{-5}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.001219	-0.001219	0	$3.882 \cdot 10^{-5}$	$3.882 \cdot 10^{-5}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0004805	-0.0004805	0	$2.249 \cdot 10^{-5}$	$2.249 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.002014	-0.002014	0	$6.09 \cdot 10^{-5}$	$6.09 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$-3.978 \cdot 10^{-5}$	$-3.978 \cdot 10^{-5}$	0	$1.206 \cdot 10^{-6}$	$1.206 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.0003054	-0.0003054	0	$9.257 \cdot 10^{-6}$	$9.257 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0.000139	0.000139	0	$3.996 \cdot 10^{-6}$	$3.996 \cdot 10^{-6}$	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0002589	-0.0002589	0	$7.848 \cdot 10^{-6}$	$7.848 \cdot 10^{-6}$	0

## 2.11 cHl3

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	-0.03901	-0.03901	0	0.002365	0.002365	0
$HH \rightarrow HHH$	$-4.794 \cdot 10^{-8}$	$-4.794 \cdot 10^{-8}$	0	$4.36 \cdot 10^{-9}$	$4.36 \cdot 10^{-9}$	0
$HH \rightarrow H\tau^+\tau^-$	$-3.421 \cdot 10^{-11}$	$-3.421 \cdot 10^{-11}$	0	$3.111 \cdot 10^{-12}$	$3.111 \cdot 10^{-12}$	0
$HH \rightarrow Hb\bar{b}$	$-1.315 \cdot 10^{-10}$	$-1.315 \cdot 10^{-10}$	0	$1.196 \cdot 10^{-11}$	$1.196 \cdot 10^{-11}$	0
$HH \rightarrow Hs\bar{s}$	$-1.383 \cdot 10^{-13}$	$-1.383 \cdot 10^{-13}$	0	$1.257 \cdot 10^{-14}$	$1.257 \cdot 10^{-14}$	0
$HH \rightarrow Ht\bar{t}$	$-2.624 \cdot 10^{-5}$	$-2.624 \cdot 10^{-5}$	0	$2.386 \cdot 10^{-6}$	$2.386 \cdot 10^{-6}$	0
$HH \rightarrow Hu\bar{u}$	$-3.123 \cdot 10^{-17}$	$-3.123 \cdot 10^{-17}$	0	$2.84 \cdot 10^{-18}$	$2.84 \cdot 10^{-18}$	0
$HH \rightarrow Hzz$	$-3.964 \cdot 10^{-5}$	$-3.964 \cdot 10^{-5}$	0	$3.605 \cdot 10^{-6}$	$3.605 \cdot 10^{-6}$	0
$HH \rightarrow W^+W^-$	-304.3	-304.3	0	40.72	40.72	0
$HH \rightarrow W^+W^-\gamma$	$-4.437 \cdot 10^{-6}$	$-4.437 \cdot 10^{-6}$	0	$3.876 \cdot 10^{-6}$	$3.876 \cdot 10^{-6}$	0
$HH \rightarrow W^+\bar{t}b$	$-5.244 \cdot 10^{-5}$	$-5.244 \cdot 10^{-5}$	0	$3.217 \cdot 10^{-5}$	$3.217 \cdot 10^{-5}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$3.909 \cdot 10^{-7}$	$3.909 \cdot 10^{-7}$	0	$3.302 \cdot 10^{-7}$	$3.302 \cdot 10^{-7}$	0
$HH \rightarrow W^-u\bar{d}$	$-3.191 \cdot 10^{-6}$	$-3.191 \cdot 10^{-6}$	0	$1.472 \cdot 10^{-6}$	$1.472 \cdot 10^{-6}$	0
$HH \rightarrow z\bar{b}b$	$-1.35 \cdot 10^{-7}$	$-1.35 \cdot 10^{-7}$	0	$1.446 \cdot 10^{-8}$	$1.446 \cdot 10^{-8}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$4.416 \cdot 10^{-7}$	$4.416 \cdot 10^{-7}$	0	$2.712 \cdot 10^{-7}$	$2.712 \cdot 10^{-7}$	0
$HH \rightarrow zc\bar{c}$	$-2.58 \cdot 10^{-6}$	$-2.58 \cdot 10^{-6}$	0	$3.346 \cdot 10^{-7}$	$3.346 \cdot 10^{-7}$	0
$HH \rightarrow zd\bar{d}$	$-4.151 \cdot 10^{-7}$	$-4.151 \cdot 10^{-7}$	0	$4.437 \cdot 10^{-8}$	$4.437 \cdot 10^{-8}$	0
$HH \rightarrow ze^+e^-$	$3.888 \cdot 10^{-7}$	$3.888 \cdot 10^{-7}$	0	$1.672 \cdot 10^{-6}$	$1.672 \cdot 10^{-6}$	0
$HH \rightarrow zt\bar{t}$	$-5.214 \cdot 10^{-5}$	$-5.214 \cdot 10^{-5}$	0	$5.295 \cdot 10^{-6}$	$5.295 \cdot 10^{-6}$	0
$HH \rightarrow zz$	-0.01843	-0.01843	0	0.001117	0.001117	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-1.169 \cdot 10^{-5}$	$-1.169 \cdot 10^{-5}$	0	$1.113 \cdot 10^{-6}$	$1.113 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-2.584 \cdot 10^{-8}$	$-2.584 \cdot 10^{-8}$	0	$2.597 \cdot 10^{-9}$	$2.597 \cdot 10^{-9}$	0
$HW^+ \rightarrow u\bar{d}$	-0.00847	-0.00847	0	0.0008511	0.0008511	0
$HW^- \rightarrow \bar{t}b$	-0.3412	-0.3412	0	0.0937	0.0937	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	$1.396 \cdot 10^{-7}$	$1.396 \cdot 10^{-7}$	0	$4.227 \cdot 10^{-7}$	$4.227 \cdot 10^{-7}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	0.01129	0.01129	0	0.0526	0.0526	0

$H\gamma \rightarrow b\bar{b}$	$-1.106 \cdot 10^{-5}$	$-1.106 \cdot 10^{-5}$	0	$3.353 \cdot 10^{-7}$	$3.353 \cdot 10^{-7}$	0
$H\gamma \rightarrow c\bar{c}$	$-9.801 \cdot 10^{-6}$	$-9.801 \cdot 10^{-6}$	0	$2.971 \cdot 10^{-7}$	$2.971 \cdot 10^{-7}$	0
$H\gamma \rightarrow d\bar{d}$	$-3.723 \cdot 10^{-11}$	$-3.723 \cdot 10^{-11}$	0	$1.129 \cdot 10^{-12}$	$1.129 \cdot 10^{-12}$	0
$H\gamma \rightarrow e^+e^-$	$-1.324 \cdot 10^{-12}$	$-1.324 \cdot 10^{-12}$	0	$4.012 \cdot 10^{-14}$	$4.012 \cdot 10^{-14}$	0
$H\gamma \rightarrow t\bar{t}$	-0.05326	-0.05326	0	0.001614	0.001614	0
$H\gamma \rightarrow \mu^+\mu^-$	0.01023	0.01023	0	0.06836	0.06836	0
$H\gamma \rightarrow \nu_\tau\bar{\nu}_\tau$	0.0809	0.0809	0	0.29	0.29	0
$H\gamma \rightarrow b\bar{b}$	-0.00423	-0.00423	0	0.0003311	0.0003311	0
$H\gamma \rightarrow s\bar{s}$	-0.003958	-0.003958	0	0.0003085	0.0003085	0
$H\gamma \rightarrow t\bar{t}$	-1.263	-1.263	0	0.08581	0.08581	0
$H\gamma \rightarrow u\bar{u}$	-0.001715	-0.001715	0	0.000184	0.000184	0
$W^+W^- \rightarrow Hb\bar{b}$	$-1.128 \cdot 10^{-5}$	$-1.128 \cdot 10^{-5}$	0	$1.937 \cdot 10^{-6}$	$1.937 \cdot 10^{-6}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-5.622 \cdot 10^{-7}$	$-5.622 \cdot 10^{-7}$	0	$9.423 \cdot 10^{-8}$	$9.423 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$-4.522 \cdot 10^{-7}$	$-4.522 \cdot 10^{-7}$	0	$7.82 \cdot 10^{-8}$	$7.82 \cdot 10^{-8}$	0
$W^+W^- \rightarrow Ht\bar{t}$	-0.0002339	-0.0002339	0	$4.304 \cdot 10^{-5}$	$4.304 \cdot 10^{-5}$	0
$W^+W^- \rightarrow W^+W^-$	-17.23	-17.23	0	2.516	2.516	0
$\bar{b}t \rightarrow \bar{d}u$	-0.01428	-0.01428	0	0.001245	0.001245	0
$\gamma W^+ \rightarrow zW^+$	-0.05656	-0.05656	0	0.003217	0.003217	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	-0.000101	-0.000101	0	$1.415 \cdot 10^{-5}$	$1.415 \cdot 10^{-5}$	0
$\nu_\tau\bar{\nu}_\tau \rightarrow \nu_\tau\bar{\nu}_\tau$	$1.342 \cdot 10^{-19}$	$1.342 \cdot 10^{-19}$	0	$3.056 \cdot 10^{-36}$	$3.056 \cdot 10^{-36}$	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	$2.824 \cdot 10^{-20}$	$2.824 \cdot 10^{-20}$	0	$4.349 \cdot 10^{-37}$	$4.349 \cdot 10^{-37}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	-0.0001336	-0.0001336	0	$1.001 \cdot 10^{-5}$	$1.001 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	-0.0001609	-0.0001609	0	$8.562 \cdot 10^{-6}$	$8.562 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	0.0514	0.0514	0	0.001276	0.001276	0
$b\bar{b} \rightarrow d\bar{d}$	-0.002628	-0.002628	0	0.0002212	0.0002212	0
$b\bar{b} \rightarrow t\bar{t}$	-0.01806	-0.01806	0	0.01014	0.01014	0
$b\bar{b} \rightarrow u\bar{u}$	-0.0004637	-0.0004637	0	$4.501 \cdot 10^{-5}$	$4.501 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	$-1.798 \cdot 10^{-5}$	$-1.798 \cdot 10^{-5}$	0	$1.023 \cdot 10^{-6}$	$1.023 \cdot 10^{-6}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.000177	-0.000177	0	$1.486 \cdot 10^{-5}$	$1.486 \cdot 10^{-5}$	0

$c\bar{s} \rightarrow \tau^+\nu_\tau$	-0.001507	-0.001507	0	$8.574 \cdot 10^{-5}$	$8.574 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	$2.607 \cdot 10^{-5}$	$2.607 \cdot 10^{-5}$	0	$7.744 \cdot 10^{-7}$	$7.744 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow e^+e^-$	-0.0004881	-0.0004881	0	$3.495 \cdot 10^{-5}$	$3.495 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow s\bar{s}$	$-6.348 \cdot 10^{-6}$	$-6.348 \cdot 10^{-6}$	0	$1.608 \cdot 10^{-6}$	$1.608 \cdot 10^{-6}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0.002766	0.002766	0	0.0002956	0.0002956	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	-0.004661	-0.004661	0	0.0001239	0.0001239	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.007846	-0.007846	0	0.001648	0.001648	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.0004593	-0.0004593	0	$4.018 \cdot 10^{-5}$	$4.018 \cdot 10^{-5}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	-0.0003028	-0.0003028	0	$8.363 \cdot 10^{-5}$	$8.363 \cdot 10^{-5}$	0
$e^+e^- \rightarrow e^+e^-$	-0.1122	-0.1122	0	0.01978	0.01978	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	-0.0006754	-0.0006754	0	$3.137 \cdot 10^{-5}$	$3.137 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow s\bar{s}$	0.1156	0.1156	0	0.01253	0.01253	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.0003296	-0.0003296	0	$2.705 \cdot 10^{-5}$	$2.705 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.0004816	-0.0004816	0	$3.931 \cdot 10^{-5}$	$3.931 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.001324	-0.001324	0	0.0001244	0.0001244	0
$t\bar{t} \rightarrow d\bar{d}$	-0.0005646	-0.0005646	0	$5.655 \cdot 10^{-5}$	$5.655 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	-0.0009245	-0.0009245	0	$9.001 \cdot 10^{-5}$	$9.001 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.3315	0.3315	0	0.01689	0.01689	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	-0.0001689	-0.0001689	0	$9.61 \cdot 10^{-6}$	$9.61 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow c\bar{s}$	-0.002888	-0.002888	0	0.0002518	0.0002518	0
$u\bar{d} \rightarrow u\bar{d}$	0.003735	0.003735	0	0.0002532	0.0002532	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0006617	-0.0006617	0	$4.638 \cdot 10^{-5}$	$4.638 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.0008112	-0.0008112	0	$7.792 \cdot 10^{-5}$	$7.792 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	0.04454	0.04454	0	0.00135	0.00135	0
$zz \rightarrow W^+W^-$	-13.65	-13.65	0	1.289	1.289	0
$zz \rightarrow zz$	-0.01937	-0.01937	0	0.001174	0.001174	0

## 2.12 cHq1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\bar{b}b$	$4.997 \cdot 10^{-7}$	$4.997 \cdot 10^{-7}$	0	$1.783 \cdot 10^{-7}$	$1.783 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{c}c$	$-1.186 \cdot 10^{-6}$	$-1.186 \cdot 10^{-6}$	0	$1.646 \cdot 10^{-6}$	$1.646 \cdot 10^{-6}$	0
$HH \rightarrow z\bar{d}d$	$1.167 \cdot 10^{-6}$	$1.167 \cdot 10^{-6}$	0	$6.646 \cdot 10^{-7}$	$6.646 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{t}t$	$7.945 \cdot 10^{-6}$	$7.945 \cdot 10^{-6}$	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0
$H\bar{z} \rightarrow \bar{b}b$	0.2419	0.2419	0	1.05	1.05	0
$H\bar{z} \rightarrow \bar{s}s$	0.05325	0.05325	0	0.2299	0.2299	0
$H\bar{z} \rightarrow \bar{t}t$	1.596	1.596	0	0.2953	0.2953	0
$H\bar{z} \rightarrow \bar{u}u$	-0.1889	-0.1889	0	1	1	0
$W^+W^- \rightarrow Hb\bar{b}$	$1.523 \cdot 10^{-6}$	$1.523 \cdot 10^{-6}$	0	$1.645 \cdot 10^{-7}$	$1.645 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-1.063 \cdot 10^{-7}$	$-1.063 \cdot 10^{-7}$	0	$1.66 \cdot 10^{-7}$	$1.66 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$9.073 \cdot 10^{-7}$	$9.073 \cdot 10^{-7}$	0	$8.825 \cdot 10^{-7}$	$8.825 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$6.99 \cdot 10^{-7}$	$6.99 \cdot 10^{-7}$	0	$1.657 \cdot 10^{-6}$	$1.657 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	0.0001969	0.0001969	0	$4.74 \cdot 10^{-6}$	$4.74 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.0005886	0.0005886	0	$2.113 \cdot 10^{-5}$	$2.113 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \bar{b}b$	-0.01774	-0.01774	0	0.0002226	0.0002226	0
$b\bar{b} \rightarrow \bar{d}d$	0.00143	0.00143	0	$9.256 \cdot 10^{-5}$	$9.256 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow \bar{t}t$	-0.001162	-0.001162	0	$1.637 \cdot 10^{-6}$	$1.637 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \bar{u}u$	$-1.462 \cdot 10^{-5}$	$-1.462 \cdot 10^{-5}$	0	$3.188 \cdot 10^{-6}$	$3.188 \cdot 10^{-6}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-6.177 \cdot 10^{-5}$	$-6.177 \cdot 10^{-5}$	0	$2.908 \cdot 10^{-6}$	$2.908 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow c\bar{c}$	-0.0002527	-0.0002527	0	$1.62 \cdot 10^{-6}$	$1.62 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+e^-$	0.0001797	0.0001797	0	$4.391 \cdot 10^{-6}$	$4.391 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow s\bar{s}$	0.0001797	0.0001797	0	$1.219 \cdot 10^{-5}$	$1.219 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	$3.388 \cdot 10^{-5}$	$3.388 \cdot 10^{-5}$	0	$1.216 \cdot 10^{-6}$	$1.216 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow \bar{s}s$	-0.03964	-0.03964	0	0.0007397	0.0007397	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	-0.0004495	-0.0004495	0	$2.01 \cdot 10^{-5}$	$2.01 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.0001063	-0.0001063	0	$3.324 \cdot 10^{-6}$	$3.324 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.000107	-0.000107	0	$1.666 \cdot 10^{-5}$	$1.666 \cdot 10^{-5}$	0



$t\bar{t} \rightarrow d\bar{d}$	$-2.248 \cdot 10^{-5}$	$-2.248 \cdot 10^{-5}$	0	$3.731 \cdot 10^{-6}$	$3.731 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-8.125 \cdot 10^{-5}$	$-8.125 \cdot 10^{-5}$	0	$2.532 \cdot 10^{-6}$	$2.532 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.1083	0.1083	0	0.00891	0.00891	0
$u\bar{d} \rightarrow u\bar{d}$	0.0001151	0.0001151	0	$1.523 \cdot 10^{-5}$	$1.523 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	-0.0003731	-0.0003731	0	$1.642 \cdot 10^{-5}$	$1.642 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	-0.00206	-0.00206	0	0.0001091	0.0001091	0
$u\bar{u} \rightarrow u\bar{u}$	0.001912	0.001912	0	$4.045 \cdot 10^{-5}$	$4.045 \cdot 10^{-5}$	0

## 2.13 cHq3

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$8.602 \cdot 10^{-6}$	$8.602 \cdot 10^{-6}$	0	$1.128 \cdot 10^{-5}$	$1.128 \cdot 10^{-5}$	0
$HH \rightarrow W^- u\bar{d}$	$1.176 \cdot 10^{-6}$	$1.176 \cdot 10^{-6}$	0	$3.576 \cdot 10^{-7}$	$3.576 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$9.648 \cdot 10^{-7}$	$9.648 \cdot 10^{-7}$	0	$9.699 \cdot 10^{-7}$	$9.699 \cdot 10^{-7}$	0
$HH \rightarrow zc\bar{c}$	$1.353 \cdot 10^{-5}$	$1.353 \cdot 10^{-5}$	0	$9.308 \cdot 10^{-6}$	$9.308 \cdot 10^{-6}$	0
$HH \rightarrow zd\bar{d}$	$1.103 \cdot 10^{-5}$	$1.103 \cdot 10^{-5}$	0	$3.14 \cdot 10^{-5}$	$3.14 \cdot 10^{-5}$	0
$HH \rightarrow zt\bar{t}$	-0.0001428	-0.0001428	0	0.0001406	0.0001406	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-9.444 \cdot 10^{-6}$	$-9.444 \cdot 10^{-6}$	0	$1.532 \cdot 10^{-6}$	$1.532 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$6.809 \cdot 10^{-8}$	$6.809 \cdot 10^{-8}$	0	$2.513 \cdot 10^{-8}$	$2.513 \cdot 10^{-8}$	0
$HW^+ \rightarrow u\bar{d}$	0.3808	0.3808	0	1.811	1.811	0
$HW^- \rightarrow \bar{t}b$	-0.8716	-0.8716	0	1.617	1.617	0
$H z \rightarrow b\bar{b}$	0.2403	0.2403	0	1.043	1.043	0
$H z \rightarrow s\bar{s}$	0.2254	0.2254	0	0.9734	0.9734	0
$H z \rightarrow t\bar{t}$	-1.944	-1.944	0	0.5842	0.5842	0
$H z \rightarrow u\bar{u}$	0.09593	0.09593	0	0.5079	0.5079	0
$W^+ W^- \rightarrow H b\bar{b}$	$-8.42 \cdot 10^{-6}$	$-8.42 \cdot 10^{-6}$	0	$2.482 \cdot 10^{-6}$	$2.482 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H c\bar{c}$	$-2.534 \cdot 10^{-7}$	$-2.534 \cdot 10^{-7}$	0	$1.098 \cdot 10^{-6}$	$1.098 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H d\bar{d}$	$-2.778 \cdot 10^{-7}$	$-2.778 \cdot 10^{-7}$	0	$7.54 \cdot 10^{-7}$	$7.54 \cdot 10^{-7}$	0

$W^+W^- \rightarrow Ht\bar{t}$	$9.659 \cdot 10^{-5}$	$9.659 \cdot 10^{-5}$	0	$2.487 \cdot 10^{-5}$	$2.487 \cdot 10^{-5}$	0
$\bar{b}t \rightarrow \bar{d}u$	0.009932	0.009932	0	0.0006021	0.0006021	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$7.38 \cdot 10^{-5}$	$7.38 \cdot 10^{-5}$	0	$2.893 \cdot 10^{-6}$	$2.893 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.0001327	0.0001327	0	$4.766 \cdot 10^{-6}$	$4.766 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow b\bar{b}$	-0.04144	-0.04144	0	0.0007929	0.0007929	0
$b\bar{b} \rightarrow d\bar{d}$	0.002046	0.002046	0	0.0001323	0.0001323	0
$b\bar{b} \rightarrow t\bar{t}$	0.007431	0.007431	0	0.00436	0.00436	0
$b\bar{b} \rightarrow u\bar{u}$	0.0003584	0.0003584	0	$2.456 \cdot 10^{-5}$	$2.456 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	$9.588 \cdot 10^{-6}$	$9.588 \cdot 10^{-6}$	0	$2.906 \cdot 10^{-7}$	$2.906 \cdot 10^{-7}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$7.798 \cdot 10^{-5}$	$7.798 \cdot 10^{-5}$	0	$2.964 \cdot 10^{-6}$	$2.964 \cdot 10^{-6}$	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	0.0008037	0.0008037	0	$2.436 \cdot 10^{-5}$	$2.436 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	$5.659 \cdot 10^{-5}$	$5.659 \cdot 10^{-5}$	0	$8.321 \cdot 10^{-6}$	$8.321 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow e^+e^-$	0.0002008	0.0002008	0	$4.821 \cdot 10^{-6}$	$4.821 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow s\bar{s}$	$4.581 \cdot 10^{-5}$	$4.581 \cdot 10^{-5}$	0	$3.799 \cdot 10^{-6}$	$3.799 \cdot 10^{-6}$	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	0.0005229	0.0005229	0	$1.877 \cdot 10^{-5}$	$1.877 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow s\bar{s}$	-0.09554	-0.09554	0	0.007661	0.007661	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0.0002152	0.0002152	0	$9.791 \cdot 10^{-6}$	$9.791 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0.0002364	0.0002364	0	$4.849 \cdot 10^{-6}$	$4.849 \cdot 10^{-6}$	0
$t\bar{t} \rightarrow c\bar{c}$	0.0008729	0.0008729	0	$4.914 \cdot 10^{-5}$	$4.914 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	0.0004082	0.0004082	0	$2.746 \cdot 10^{-5}$	$2.746 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	0.0006521	0.0006521	0	$4.219 \cdot 10^{-5}$	$4.219 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	-0.1788	-0.1788	0	0.00941	0.00941	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$9.009 \cdot 10^{-5}$	$9.009 \cdot 10^{-5}$	0	$2.731 \cdot 10^{-6}$	$2.731 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow c\bar{s}$	0.002009	0.002009	0	0.0001218	0.0001218	0
$u\bar{d} \rightarrow u\bar{d}$	-0.002449	-0.002449	0	0.0001376	0.0001376	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	0.0004188	0.0004188	0	$1.843 \cdot 10^{-5}$	$1.843 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	0.0005287	0.0005287	0	$3.384 \cdot 10^{-5}$	$3.384 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	-0.03587	-0.03587	0	0.0006477	0.0006477	0

## 2.14 cHu

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z c \bar{c}$	$5.359 \cdot 10^{-7}$	$5.359 \cdot 10^{-7}$	0	$1.646 \cdot 10^{-6}$	$1.646 \cdot 10^{-6}$	0
$HH \rightarrow z t \bar{t}$	$7.316 \cdot 10^{-6}$	$7.316 \cdot 10^{-6}$	0	$1.83 \cdot 10^{-5}$	$1.83 \cdot 10^{-5}$	0
$H z \rightarrow t \bar{t}$	-1.538	-1.538	0	0.2953	0.2953	0
$H z \rightarrow u \bar{u}$	0.08544	0.08544	0	1	1	0
$W^+ W^- \rightarrow H c \bar{c}$	$3.7 \cdot 10^{-8}$	$3.7 \cdot 10^{-8}$	0	$1.662 \cdot 10^{-7}$	$1.662 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-1.927 \cdot 10^{-6}$	$-1.927 \cdot 10^{-6}$	0	$1.657 \cdot 10^{-6}$	$1.657 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow t \bar{t}$	-0.0006719	-0.0006719	0	$3.645 \cdot 10^{-6}$	$3.645 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow u \bar{u}$	$8.281 \cdot 10^{-5}$	$8.281 \cdot 10^{-5}$	0	$1.729 \cdot 10^{-5}$	$1.729 \cdot 10^{-5}$	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	$1.441 \cdot 10^{-5}$	$1.441 \cdot 10^{-5}$	0	$2.995 \cdot 10^{-6}$	$2.995 \cdot 10^{-6}$	0
$d \bar{d} \rightarrow c \bar{c}$	$7.069 \cdot 10^{-5}$	$7.069 \cdot 10^{-5}$	0	$1.65 \cdot 10^{-6}$	$1.65 \cdot 10^{-6}$	0
$t \bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	$-1.33 \cdot 10^{-5}$	$-1.33 \cdot 10^{-5}$	0	$2.517 \cdot 10^{-7}$	$2.517 \cdot 10^{-7}$	0
$t \bar{t} \rightarrow \tau^+ \tau^-$	$4.417 \cdot 10^{-5}$	$4.417 \cdot 10^{-5}$	0	$3.098 \cdot 10^{-6}$	$3.098 \cdot 10^{-6}$	0
$t \bar{t} \rightarrow c \bar{c}$	-0.0001825	-0.0001825	0	$3.779 \cdot 10^{-5}$	$3.779 \cdot 10^{-5}$	0
$t \bar{t} \rightarrow d \bar{d}$	$4.826 \cdot 10^{-5}$	$4.826 \cdot 10^{-5}$	0	$1.932 \cdot 10^{-5}$	$1.932 \cdot 10^{-5}$	0
$t \bar{t} \rightarrow s \bar{s}$	$2.46 \cdot 10^{-5}$	$2.46 \cdot 10^{-5}$	0	$1.094 \cdot 10^{-5}$	$1.094 \cdot 10^{-5}$	0
$t \bar{t} \rightarrow t \bar{t}$	-0.09532	-0.09532	0	0.009357	0.009357	0
$u \bar{d} \rightarrow u \bar{d}$	0.0003612	0.0003612	0	$8.853 \cdot 10^{-5}$	$8.853 \cdot 10^{-5}$	0
$u \bar{u} \rightarrow \nu_e \bar{\nu}_e$	$6.385 \cdot 10^{-6}$	$6.385 \cdot 10^{-6}$	0	$6.214 \cdot 10^{-7}$	$6.214 \cdot 10^{-7}$	0
$u \bar{u} \rightarrow c \bar{c}$	0.0004839	0.0004839	0	$2.29 \cdot 10^{-5}$	$2.29 \cdot 10^{-5}$	0
$u \bar{u} \rightarrow u \bar{u}$	-0.001493	-0.001493	0	0.0001475	0.0001475	0

## 2.15 cHudRe

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

$HH \rightarrow W^+ \bar{t} b$	$-2.648 \cdot 10^{-8}$	$-2.648 \cdot 10^{-8}$	0	$3.236 \cdot 10^{-9}$	$3.236 \cdot 10^{-9}$	0
$HH \rightarrow W^- u \bar{d}$	$-1.094 \cdot 10^{-24}$	$-1.094 \cdot 10^{-24}$	0	$5.276 \cdot 10^{-26}$	$5.276 \cdot 10^{-26}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-1.132 \cdot 10^{-10}$	$-1.132 \cdot 10^{-10}$	0	$8.179 \cdot 10^{-12}$	$8.179 \cdot 10^{-12}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$-2.735 \cdot 10^{-25}$	$-2.735 \cdot 10^{-25}$	0	$1.353 \cdot 10^{-26}$	$1.353 \cdot 10^{-26}$	0
$HW^+ \rightarrow u \bar{d}$	$-2.344 \cdot 10^{-19}$	$-2.344 \cdot 10^{-19}$	0	$4.198 \cdot 10^{-20}$	$4.198 \cdot 10^{-20}$	0
$HW^- \rightarrow \bar{t} b$	$-0.0008805$	$-0.0008805$	0	$7.91 \cdot 10^{-5}$	$7.91 \cdot 10^{-5}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$-2.548 \cdot 10^{-9}$	$-2.548 \cdot 10^{-9}$	0	$3.096 \cdot 10^{-10}$	$3.096 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-3.42 \cdot 10^{-17}$	$-3.42 \cdot 10^{-17}$	0	$3.326 \cdot 10^{-24}$	$3.326 \cdot 10^{-24}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-6.625 \cdot 10^{-26}$	$-6.625 \cdot 10^{-26}$	0	$4.79 \cdot 10^{-36}$	$4.79 \cdot 10^{-36}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$6.252 \cdot 10^{-10}$	$6.252 \cdot 10^{-10}$	0	$4.268 \cdot 10^{-13}$	$4.268 \cdot 10^{-13}$	0
$\bar{b} t \rightarrow \bar{d} u$	$-4.67 \cdot 10^{-8}$	$-4.67 \cdot 10^{-8}$	0	$9.712 \cdot 10^{-9}$	$9.712 \cdot 10^{-9}$	0
$b \bar{b} \rightarrow t \bar{t}$	$2.723 \cdot 10^{-5}$	$2.723 \cdot 10^{-5}$	0	$1.893 \cdot 10^{-6}$	$1.893 \cdot 10^{-6}$	0
$b \bar{t} \rightarrow e^- \bar{\nu}_e$	$-1.557 \cdot 10^{-8}$	$-1.557 \cdot 10^{-8}$	0	$6.652 \cdot 10^{-11}$	$6.652 \cdot 10^{-11}$	0
$c \bar{s} \rightarrow \tau^+ \nu_\tau$	$-4.004 \cdot 10^{-16}$	$-4.004 \cdot 10^{-16}$	0	$6.976 \cdot 10^{-17}$	$6.976 \cdot 10^{-17}$	0
$u \bar{d} \rightarrow \mu^+ \nu_\mu$	$-3.037 \cdot 10^{-24}$	$-3.037 \cdot 10^{-24}$	0	$6.131 \cdot 10^{-25}$	$6.131 \cdot 10^{-25}$	0
$u \bar{d} \rightarrow c \bar{s}$	$-1.249 \cdot 10^{-15}$	$-1.249 \cdot 10^{-15}$	0	$2.448 \cdot 10^{-16}$	$2.448 \cdot 10^{-16}$	0
$u \bar{d} \rightarrow u \bar{d}$	$-1.19 \cdot 10^{-20}$	$-1.19 \cdot 10^{-20}$	0	$4.972 \cdot 10^{-24}$	$4.972 \cdot 10^{-24}$	0

## 2.16 cW

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ W^- \gamma$	$8.045 \cdot 10^{-8}$	$8.045 \cdot 10^{-8}$	0	$5.343 \cdot 10^{-7}$	$5.343 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$-1.57 \cdot 10^{-7}$	$-1.57 \cdot 10^{-7}$	0	$8.886 \cdot 10^{-7}$	$8.886 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$3.222 \cdot 10^{-7}$	$3.222 \cdot 10^{-7}$	0	$1.885 \cdot 10^{-6}$	$1.885 \cdot 10^{-6}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-2.139 \cdot 10^{-8}$	$-2.139 \cdot 10^{-8}$	0	$1.978 \cdot 10^{-7}$	$1.978 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$-4.789 \cdot 10^{-6}$	$-4.789 \cdot 10^{-6}$	0	$3.937 \cdot 10^{-6}$	$3.937 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-7.023 \cdot 10^{-8}$	$-7.023 \cdot 10^{-8}$	0	$6.06 \cdot 10^{-7}$	$6.06 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$-1.58 \cdot 10^{-8}$	$-1.58 \cdot 10^{-8}$	0	$4.635 \cdot 10^{-7}$	$4.635 \cdot 10^{-7}$	0

$W^+W^- \rightarrow Ht\bar{t}$	$-2.858 \cdot 10^{-7}$	$-2.858 \cdot 10^{-7}$	0	$7.257 \cdot 10^{-6}$	$7.257 \cdot 10^{-6}$	0
$W^+W^- \rightarrow W^+W^-$	0.1099	0.1099	0	7.187	7.187	0
$W^+W^- \rightarrow \gamma\gamma$	0.004562	0.004562	0	0.6526	0.6526	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	$1.326 \cdot 10^{-8}$	$1.326 \cdot 10^{-8}$	0	$8.925 \cdot 10^{-7}$	$8.925 \cdot 10^{-7}$	0
$\gamma W^+ \rightarrow zW^+$	0.00759	0.00759	0	0.615	0.615	0
$zz \rightarrow W^+W^-$	-0.07539	-0.07539	0	15.09	15.09	0

## 2.17 cdBRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow z\bar{b}b$	$3.149 \cdot 10^{-9}$	$3.149 \cdot 10^{-9}$	0	$5.123 \cdot 10^{-10}$	$5.123 \cdot 10^{-10}$	0
$HH \rightarrow z\bar{d}d$	$-2.043 \cdot 10^{-15}$	$-2.043 \cdot 10^{-15}$	0	$5.701 \cdot 10^{-16}$	$5.701 \cdot 10^{-16}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-3.851 \cdot 10^{-9}$	$-3.851 \cdot 10^{-9}$	0	$1.426 \cdot 10^{-9}$	$1.426 \cdot 10^{-9}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-1.773 \cdot 10^{-15}$	$-1.773 \cdot 10^{-15}$	0	$4.349 \cdot 10^{-15}$	$4.349 \cdot 10^{-15}$	0
$H\gamma \rightarrow b\bar{b}$	$-5.345 \cdot 10^{-8}$	$-5.345 \cdot 10^{-8}$	0	0.001096	0.001096	0
$H\gamma \rightarrow d\bar{d}$	$-2.225 \cdot 10^{-19}$	$-2.225 \cdot 10^{-19}$	0	$5.076 \cdot 10^{-10}$	$5.076 \cdot 10^{-10}$	0
$H z \rightarrow b\bar{b}$	$-1.684 \cdot 10^{-5}$	$-1.684 \cdot 10^{-5}$	0	0.0002763	0.0002763	0
$H z \rightarrow s\bar{s}$	$-8.345 \cdot 10^{-9}$	$-8.345 \cdot 10^{-9}$	0	$1.272 \cdot 10^{-7}$	$1.272 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$3.633 \cdot 10^{-10}$	$3.633 \cdot 10^{-10}$	0	$3.2 \cdot 10^{-12}$	$3.2 \cdot 10^{-12}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$1.11 \cdot 10^{-16}$	$1.11 \cdot 10^{-16}$	0	$5.416 \cdot 10^{-18}$	$5.416 \cdot 10^{-18}$	0
$b\bar{b} \rightarrow \gamma\gamma$	$3.241 \cdot 10^{-7}$	$3.241 \cdot 10^{-7}$	0	$1.169 \cdot 10^{-6}$	$1.169 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$5.669 \cdot 10^{-7}$	$5.669 \cdot 10^{-7}$	0	$1.847 \cdot 10^{-6}$	$1.847 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	$-3.434 \cdot 10^{-7}$	$-3.434 \cdot 10^{-7}$	0	$3.758 \cdot 10^{-7}$	$3.758 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow b\bar{b}$	$-9.798 \cdot 10^{-6}$	$-9.798 \cdot 10^{-6}$	0	$1.36 \cdot 10^{-5}$	$1.36 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow d\bar{d}$	$-5.749 \cdot 10^{-7}$	$-5.749 \cdot 10^{-7}$	0	$3.842 \cdot 10^{-7}$	$3.842 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow t\bar{t}$	$5.899 \cdot 10^{-6}$	$5.899 \cdot 10^{-6}$	0	$1.904 \cdot 10^{-6}$	$1.904 \cdot 10^{-6}$	0
$b\bar{b} \rightarrow u\bar{u}$	$3.635 \cdot 10^{-7}$	$3.635 \cdot 10^{-7}$	0	$1.945 \cdot 10^{-6}$	$1.945 \cdot 10^{-6}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-4.962 \cdot 10^{-13}$	$-4.962 \cdot 10^{-13}$	0	$1.435 \cdot 10^{-13}$	$1.435 \cdot 10^{-13}$	0

$d\bar{d} \rightarrow e^+e^-$	$1.538 \cdot 10^{-12}$	$1.538 \cdot 10^{-12}$	0	$1.257 \cdot 10^{-12}$	$1.257 \cdot 10^{-12}$	0
$d\bar{d} \rightarrow s\bar{s}$	$-4.957 \cdot 10^{-11}$	$-4.957 \cdot 10^{-11}$	0	$7.43 \cdot 10^{-11}$	$7.43 \cdot 10^{-11}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-4.257 \cdot 10^{-10}$	$-4.257 \cdot 10^{-10}$	0	$7.057 \cdot 10^{-11}$	$7.057 \cdot 10^{-11}$	0
$s\bar{s} \rightarrow s\bar{s}$	$-3.726 \cdot 10^{-8}$	$-3.726 \cdot 10^{-8}$	0	$1.71 \cdot 10^{-8}$	$1.71 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow d\bar{d}$	$3.812 \cdot 10^{-12}$	$3.812 \cdot 10^{-12}$	0	$2.572 \cdot 10^{-12}$	$2.572 \cdot 10^{-12}$	0
$t\bar{t} \rightarrow s\bar{s}$	$5.387 \cdot 10^{-10}$	$5.387 \cdot 10^{-10}$	0	$1.078 \cdot 10^{-9}$	$1.078 \cdot 10^{-9}$	0
$u\bar{d} \rightarrow u\bar{d}$	$-1.931 \cdot 10^{-12}$	$-1.931 \cdot 10^{-12}$	0	$4.623 \cdot 10^{-12}$	$4.623 \cdot 10^{-12}$	0

## 2.18 cdGRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-0.0005096	-0.0005096	0	0.00035	0.00035	0
$b\bar{b} \rightarrow d\bar{d}$	-0.000112	-0.000112	0	$1.405 \cdot 10^{-5}$	$1.405 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0001065	-0.0001065	0	$2.142 \cdot 10^{-5}$	$2.142 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow u\bar{u}$	-0.000112	-0.000112	0	$2.113 \cdot 10^{-5}$	$2.113 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.398 \cdot 10^{-10}$	$-1.398 \cdot 10^{-10}$	0	$1.559 \cdot 10^{-12}$	$1.559 \cdot 10^{-12}$	0
$d\bar{d} \rightarrow s\bar{s}$	$-5.56 \cdot 10^{-8}$	$-5.56 \cdot 10^{-8}$	0	$2.717 \cdot 10^{-9}$	$2.717 \cdot 10^{-9}$	0
$s\bar{s} \rightarrow s\bar{s}$	$-4.644 \cdot 10^{-7}$	$-4.644 \cdot 10^{-7}$	0	$5.78 \cdot 10^{-7}$	$5.78 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-1.567 \cdot 10^{-10}$	$-1.567 \cdot 10^{-10}$	0	$2.887 \cdot 10^{-11}$	$2.887 \cdot 10^{-11}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-6.213 \cdot 10^{-8}$	$-6.213 \cdot 10^{-8}$	0	$1.207 \cdot 10^{-8}$	$1.207 \cdot 10^{-8}$	0
$u\bar{d} \rightarrow u\bar{d}$	$-1.459 \cdot 10^{-10}$	$-1.459 \cdot 10^{-10}$	0	$5.042 \cdot 10^{-11}$	$5.042 \cdot 10^{-11}$	0

## 2.19 cdHRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow Hb\bar{b}$	$-6.689 \cdot 10^{-10}$	$-6.689 \cdot 10^{-10}$	0	$9.581 \cdot 10^{-10}$	$9.581 \cdot 10^{-10}$	0
$HH \rightarrow Hs\bar{s}$	$-1.349 \cdot 10^{-12}$	$-1.349 \cdot 10^{-12}$	0	$1.631 \cdot 10^{-12}$	$1.631 \cdot 10^{-12}$	0

$HH \rightarrow W^+ \bar{t}b$	$-2.596 \cdot 10^{-8}$	$-2.596 \cdot 10^{-8}$	0	$3.045 \cdot 10^{-9}$	$3.045 \cdot 10^{-9}$	0
$HH \rightarrow W^- u \bar{d}$	$-1.063 \cdot 10^{-15}$	$-1.063 \cdot 10^{-15}$	0	$1.949 \cdot 10^{-15}$	$1.949 \cdot 10^{-15}$	0
$HH \rightarrow z \bar{b}b$	$4.063 \cdot 10^{-10}$	$4.063 \cdot 10^{-10}$	0	$2.777 \cdot 10^{-10}$	$2.777 \cdot 10^{-10}$	0
$HH \rightarrow z d \bar{d}$	$-4.081 \cdot 10^{-15}$	$-4.081 \cdot 10^{-15}$	0	$1.994 \cdot 10^{-15}$	$1.994 \cdot 10^{-15}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$1.672 \cdot 10^{-11}$	$1.672 \cdot 10^{-11}$	0	$2.895 \cdot 10^{-12}$	$2.895 \cdot 10^{-12}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$-2.225 \cdot 10^{-16}$	$-2.225 \cdot 10^{-16}$	0	$2.328 \cdot 10^{-17}$	$2.328 \cdot 10^{-17}$	0
$HW^+ \rightarrow u \bar{d}$	$-5.874 \cdot 10^{-12}$	$-5.874 \cdot 10^{-12}$	0	$4.379 \cdot 10^{-11}$	$4.379 \cdot 10^{-11}$	0
$HW^- \rightarrow \bar{t}b$	0.0002098	0.0002098	0	$3.618 \cdot 10^{-5}$	$3.618 \cdot 10^{-5}$	0
$H\gamma \rightarrow b \bar{b}$	$-9.175 \cdot 10^{-6}$	$-9.175 \cdot 10^{-6}$	0	$2.781 \cdot 10^{-7}$	$2.781 \cdot 10^{-7}$	0
$H\gamma \rightarrow d \bar{d}$	$-1.164 \cdot 10^{-11}$	$-1.164 \cdot 10^{-11}$	0	$3.529 \cdot 10^{-13}$	$3.529 \cdot 10^{-13}$	0
$H z \rightarrow b \bar{b}$	$8.707 \cdot 10^{-7}$	$8.707 \cdot 10^{-7}$	0	$3.522 \cdot 10^{-5}$	$3.522 \cdot 10^{-5}$	0
$H z \rightarrow s \bar{s}$	$-6.912 \cdot 10^{-8}$	$-6.912 \cdot 10^{-8}$	0	$1.958 \cdot 10^{-8}$	$1.958 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$6.525 \cdot 10^{-10}$	$6.525 \cdot 10^{-10}$	0	$1.624 \cdot 10^{-10}$	$1.624 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$5.019 \cdot 10^{-14}$	$5.019 \cdot 10^{-14}$	0	$1.728 \cdot 10^{-21}$	$1.728 \cdot 10^{-21}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$2.161 \cdot 10^{-16}$	$2.161 \cdot 10^{-16}$	0	$6.28 \cdot 10^{-17}$	$6.28 \cdot 10^{-17}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$7.532 \cdot 10^{-11}$	$7.532 \cdot 10^{-11}$	0	$5.212 \cdot 10^{-15}$	$5.212 \cdot 10^{-15}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-2.226 \cdot 10^{-12}$	$-2.226 \cdot 10^{-12}$	0	$6.71 \cdot 10^{-14}$	$6.71 \cdot 10^{-14}$	0
$b \bar{b} \rightarrow b \bar{b}$	0.0001187	0.0001187	0	$2.806 \cdot 10^{-9}$	$2.806 \cdot 10^{-9}$	0
$b \bar{b} \rightarrow d \bar{d}$	$-2.601 \cdot 10^{-14}$	$-2.601 \cdot 10^{-14}$	0	$1.573 \cdot 10^{-15}$	$1.573 \cdot 10^{-15}$	0
$b \bar{b} \rightarrow t \bar{t}$	$-1.008 \cdot 10^{-5}$	$-1.008 \cdot 10^{-5}$	0	$4.739 \cdot 10^{-7}$	$4.739 \cdot 10^{-7}$	0
$b \bar{b} \rightarrow u \bar{u}$	$-2.779 \cdot 10^{-15}$	$-2.779 \cdot 10^{-15}$	0	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	0
$d \bar{d} \rightarrow c \bar{c}$	$-1.189 \cdot 10^{-15}$	$-1.189 \cdot 10^{-15}$	0	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	0
$d \bar{d} \rightarrow e^+ e^-$	$-6.494 \cdot 10^{-23}$	$-6.494 \cdot 10^{-23}$	0	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	0
$d \bar{d} \rightarrow s \bar{s}$	$-1.28 \cdot 10^{-17}$	$-1.28 \cdot 10^{-17}$	0	$7.787 \cdot 10^{-19}$	$7.787 \cdot 10^{-19}$	0
$s \bar{s} \rightarrow s \bar{s}$	$7.772 \cdot 10^{-8}$	$7.772 \cdot 10^{-8}$	0	$6.78 \cdot 10^{-16}$	$6.78 \cdot 10^{-16}$	0
$t \bar{t} \rightarrow d \bar{d}$	$-2.089 \cdot 10^{-11}$	$-2.089 \cdot 10^{-11}$	0	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	0
$t \bar{t} \rightarrow s \bar{s}$	$-8.264 \cdot 10^{-9}$	$-8.264 \cdot 10^{-9}$	0	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	0
$u \bar{d} \rightarrow u \bar{d}$	$-2.036 \cdot 10^{-21}$	$-2.036 \cdot 10^{-21}$	0	$9.757 \cdot 10^{-23}$	$9.757 \cdot 10^{-23}$	0

## 2.20 cdWRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$1.268 \cdot 10^{-8}$	$1.268 \cdot 10^{-8}$	0	$1.394 \cdot 10^{-8}$	$1.394 \cdot 10^{-8}$	0
$HH \rightarrow W^- u \bar{d}$	$1.324 \cdot 10^{-15}$	$1.324 \cdot 10^{-15}$	0	$1.211 \cdot 10^{-15}$	$1.211 \cdot 10^{-15}$	0
$HH \rightarrow z \bar{b}b$	$5.705 \cdot 10^{-9}$	$5.705 \cdot 10^{-9}$	0	$1.681 \cdot 10^{-9}$	$1.681 \cdot 10^{-9}$	0
$HH \rightarrow z d \bar{d}$	$-3.701 \cdot 10^{-15}$	$-3.701 \cdot 10^{-15}$	0	$1.871 \cdot 10^{-15}$	$1.871 \cdot 10^{-15}$	0
$HW^+ \rightarrow \gamma \bar{t}b$	$6.737 \cdot 10^{-9}$	$6.737 \cdot 10^{-9}$	0	$2.367 \cdot 10^{-9}$	$2.367 \cdot 10^{-9}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$1.306 \cdot 10^{-15}$	$1.306 \cdot 10^{-15}$	0	$1.49 \cdot 10^{-15}$	$1.49 \cdot 10^{-15}$	0
$HW^+ \rightarrow u \bar{d}$	$-3.784 \cdot 10^{-11}$	$-3.784 \cdot 10^{-11}$	0	$1.28 \cdot 10^{-9}$	$1.28 \cdot 10^{-9}$	0
$HW^- \rightarrow \bar{t}b$	-0.0001706	-0.0001706	0	0.00119	0.00119	0
$H\gamma \rightarrow b \bar{b}$	$2.951 \cdot 10^{-8}$	$2.951 \cdot 10^{-8}$	0	0.0003341	0.0003341	0
$H\gamma \rightarrow d \bar{d}$	$1.228 \cdot 10^{-19}$	$1.228 \cdot 10^{-19}$	0	$1.547 \cdot 10^{-10}$	$1.547 \cdot 10^{-10}$	0
$H z \rightarrow b \bar{b}$	$-3.05 \cdot 10^{-5}$	$-3.05 \cdot 10^{-5}$	0	0.0009066	0.0009066	0
$H z \rightarrow s \bar{s}$	$-1.512 \cdot 10^{-8}$	$-1.512 \cdot 10^{-8}$	0	$4.173 \cdot 10^{-7}$	$4.173 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$5.338 \cdot 10^{-9}$	$5.338 \cdot 10^{-9}$	0	$1.809 \cdot 10^{-9}$	$1.809 \cdot 10^{-9}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-1.141 \cdot 10^{-13}$	$-1.141 \cdot 10^{-13}$	0	$3.783 \cdot 10^{-19}$	$3.783 \cdot 10^{-19}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$4.433 \cdot 10^{-16}$	$4.433 \cdot 10^{-16}$	0	$1.795 \cdot 10^{-15}$	$1.795 \cdot 10^{-15}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$-6.687 \cdot 10^{-9}$	$-6.687 \cdot 10^{-9}$	0	$1.214 \cdot 10^{-11}$	$1.214 \cdot 10^{-11}$	0
$\bar{b}t \rightarrow \bar{d}u$	$-9.237 \cdot 10^{-6}$	$-9.237 \cdot 10^{-6}$	0	$1.261 \cdot 10^{-6}$	$1.261 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow \gamma \gamma$	$-1.789 \cdot 10^{-7}$	$-1.789 \cdot 10^{-7}$	0	$3.563 \cdot 10^{-7}$	$3.563 \cdot 10^{-7}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-8.213 \cdot 10^{-7}$	$-8.213 \cdot 10^{-7}$	0	$1.221 \cdot 10^{-6}$	$1.221 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow \nu_e \bar{\nu}_e$	$-6.221 \cdot 10^{-7}$	$-6.221 \cdot 10^{-7}$	0	$1.233 \cdot 10^{-6}$	$1.233 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow b \bar{b}$	$9.355 \cdot 10^{-5}$	$9.355 \cdot 10^{-5}$	0	$7.98 \cdot 10^{-5}$	$7.98 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow d \bar{d}$	$-3.996 \cdot 10^{-6}$	$-3.996 \cdot 10^{-6}$	0	$2.275 \cdot 10^{-6}$	$2.275 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow t \bar{t}$	$-9.619 \cdot 10^{-5}$	$-9.619 \cdot 10^{-5}$	0	$3.176 \cdot 10^{-5}$	$3.176 \cdot 10^{-5}$	0
$b \bar{b} \rightarrow u \bar{u}$	$-1.868 \cdot 10^{-6}$	$-1.868 \cdot 10^{-6}$	0	$3.412 \cdot 10^{-6}$	$3.412 \cdot 10^{-6}$	0
$b \bar{t} \rightarrow e^- \bar{\nu}_e$	$-2.836 \cdot 10^{-7}$	$-2.836 \cdot 10^{-7}$	0	$8.221 \cdot 10^{-7}$	$8.221 \cdot 10^{-7}$	0
$c \bar{s} \rightarrow \tau^+ \nu_\tau$	$-1.061 \cdot 10^{-9}$	$-1.061 \cdot 10^{-9}$	0	$1.092 \cdot 10^{-9}$	$1.092 \cdot 10^{-9}$	0



$d\bar{d} \rightarrow c\bar{c}$	$-4.754 \cdot 10^{-13}$	$-4.754 \cdot 10^{-13}$	0	$2.517 \cdot 10^{-13}$	$2.517 \cdot 10^{-13}$	0
$d\bar{d} \rightarrow e^+e^-$	$-1.572 \cdot 10^{-12}$	$-1.572 \cdot 10^{-12}$	0	$8.313 \cdot 10^{-13}$	$8.313 \cdot 10^{-13}$	0
$d\bar{d} \rightarrow s\bar{s}$	$-3.501 \cdot 10^{-12}$	$-3.501 \cdot 10^{-12}$	0	$4.399 \cdot 10^{-10}$	$4.399 \cdot 10^{-10}$	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	$-7.711 \cdot 10^{-10}$	$-7.711 \cdot 10^{-10}$	0	$2.316 \cdot 10^{-10}$	$2.316 \cdot 10^{-10}$	0
$s\bar{s} \rightarrow s\bar{s}$	$2.742 \cdot 10^{-7}$	$2.742 \cdot 10^{-7}$	0	$9.889 \cdot 10^{-8}$	$9.889 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-5.924 \cdot 10^{-12}$	$-5.924 \cdot 10^{-12}$	0	$4.384 \cdot 10^{-12}$	$4.384 \cdot 10^{-12}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-1.39 \cdot 10^{-9}$	$-1.39 \cdot 10^{-9}$	0	$1.84 \cdot 10^{-9}$	$1.84 \cdot 10^{-9}$	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-8.959 \cdot 10^{-13}$	$-8.959 \cdot 10^{-13}$	0	$2.147 \cdot 10^{-12}$	$2.147 \cdot 10^{-12}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-2.06 \cdot 10^{-9}$	$-2.06 \cdot 10^{-9}$	0	$3.621 \cdot 10^{-9}$	$3.621 \cdot 10^{-9}$	0
$u\bar{d} \rightarrow u\bar{d}$	$6.025 \cdot 10^{-12}$	$6.025 \cdot 10^{-12}$	0	$1.623 \cdot 10^{-11}$	$1.623 \cdot 10^{-11}$	0

## 2.21 cdd

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-0.8064	-0.8064	0	2.907	2.907	0
$b\bar{b} \rightarrow d\bar{d}$	0.02625	0.02625	0	1.84	1.84	0
$d\bar{d} \rightarrow s\bar{s}$	0.002887	0.002887	0	0.2024	0.2024	0
$s\bar{s} \rightarrow s\bar{s}$	-2.536	-2.536	0	4.839	4.839	0

## 2.22 cdd1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow b\bar{b}$	-0.8064	-0.8064	0	2.907	2.907	0
$b\bar{b} \rightarrow d\bar{d}$	1.22	1.22	0	1.84	1.84	0
$d\bar{d} \rightarrow s\bar{s}$	0.1342	0.1342	0	0.2024	0.2024	0
$s\bar{s} \rightarrow s\bar{s}$	-2.536	-2.536	0	4.839	4.839	0

## 2.23 ceBRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow ze^+e^-$	$-4.986 \cdot 10^{-19}$	$-4.986 \cdot 10^{-19}$	0	$1.014 \cdot 10^{-19}$	$1.014 \cdot 10^{-19}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-1.603 \cdot 10^{-18}$	$-1.603 \cdot 10^{-18}$	0	$8.78 \cdot 10^{-18}$	$8.78 \cdot 10^{-18}$	0
$H\gamma \rightarrow e^+e^-$	$5.894 \cdot 10^{-23}$	$5.894 \cdot 10^{-23}$	0	$6.473 \cdot 10^{-12}$	$6.473 \cdot 10^{-12}$	0
$HZ \rightarrow \mu^+\mu^-$	$-3.428 \cdot 10^{-10}$	$-3.428 \cdot 10^{-10}$	0	$2.333 \cdot 10^{-8}$	$2.333 \cdot 10^{-8}$	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	$1.619 \cdot 10^{-6}$	$1.619 \cdot 10^{-6}$	0	$6.103 \cdot 10^{-7}$	$6.103 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow \mu^+\mu^-$	$3.112 \cdot 10^{-12}$	$3.112 \cdot 10^{-12}$	0	$7.533 \cdot 10^{-11}$	$7.533 \cdot 10^{-11}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$5.624 \cdot 10^{-10}$	$5.624 \cdot 10^{-10}$	0	$4.497 \cdot 10^{-10}$	$4.497 \cdot 10^{-10}$	0
$d\bar{d} \rightarrow e^+e^-$	$1.934 \cdot 10^{-16}$	$1.934 \cdot 10^{-16}$	0	$2.07 \cdot 10^{-15}$	$2.07 \cdot 10^{-15}$	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	$1.763 \cdot 10^{-13}$	$1.763 \cdot 10^{-13}$	0	$2.009 \cdot 10^{-13}$	$2.009 \cdot 10^{-13}$	0
$e^+\nu_e \rightarrow e^+\nu_e$	$7.424 \cdot 10^{-14}$	$7.424 \cdot 10^{-14}$	0	$3.249 \cdot 10^{-14}$	$3.249 \cdot 10^{-14}$	0
$e^+\tau^- \rightarrow e^+\tau^-$	$7.595 \cdot 10^{-7}$	$7.595 \cdot 10^{-7}$	0	$5.112 \cdot 10^{-7}$	$5.112 \cdot 10^{-7}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	$3.782 \cdot 10^{-9}$	$3.782 \cdot 10^{-9}$	0	$2.484 \cdot 10^{-9}$	$2.484 \cdot 10^{-9}$	0
$e^+e^- \rightarrow e^+e^-$	$4.284 \cdot 10^{-13}$	$4.284 \cdot 10^{-13}$	0	$2.022 \cdot 10^{-13}$	$2.022 \cdot 10^{-13}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$1.036 \cdot 10^{-7}$	$1.036 \cdot 10^{-7}$	0	$1.287 \cdot 10^{-7}$	$1.287 \cdot 10^{-7}$	0

## 2.24 ceHRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow H\tau^+\tau^-$	$-2.5 \cdot 10^{-10}$	$-2.5 \cdot 10^{-10}$	0	$7.602 \cdot 10^{-11}$	$7.602 \cdot 10^{-11}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$-1.46 \cdot 10^{-17}$	$-1.46 \cdot 10^{-17}$	0	$1.654 \cdot 10^{-18}$	$1.654 \cdot 10^{-18}$	0
$HH \rightarrow ze^+e^-$	$1.861 \cdot 10^{-19}$	$1.861 \cdot 10^{-19}$	0	$7.308 \cdot 10^{-19}$	$7.308 \cdot 10^{-19}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$1.636 \cdot 10^{-19}$	$1.636 \cdot 10^{-19}$	0	$7.718 \cdot 10^{-21}$	$7.718 \cdot 10^{-21}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$-9.809 \cdot 10^{-10}$	$-9.809 \cdot 10^{-10}$	0	$7.477 \cdot 10^{-9}$	$7.477 \cdot 10^{-9}$	0
$H\gamma \rightarrow e^+e^-$	$-4.185 \cdot 10^{-13}$	$-4.185 \cdot 10^{-13}$	0	$1.269 \cdot 10^{-14}$	$1.269 \cdot 10^{-14}$	0

$H z \rightarrow \mu^+ \mu^-$	$-4.378 \cdot 10^{-9}$	$-4.378 \cdot 10^{-9}$	0	$7.643 \cdot 10^{-9}$	$7.643 \cdot 10^{-9}$	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$-2.436 \cdot 10^{-12}$	$-2.436 \cdot 10^{-12}$	0	$1.455 \cdot 10^{-13}$	$1.455 \cdot 10^{-13}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-2.226 \cdot 10^{-12}$	$-2.226 \cdot 10^{-12}$	0	$6.71 \cdot 10^{-14}$	$6.71 \cdot 10^{-14}$	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	$-2.045 \cdot 10^{-13}$	$-2.045 \cdot 10^{-13}$	0	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	0
$d \bar{d} \rightarrow e^+ e^-$	$-6.494 \cdot 10^{-23}$	$-6.494 \cdot 10^{-23}$	0	$1.959 \cdot 10^{-24}$	$1.959 \cdot 10^{-24}$	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	$-5.434 \cdot 10^{-17}$	$-5.434 \cdot 10^{-17}$	0	$3.185 \cdot 10^{-18}$	$3.185 \cdot 10^{-18}$	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	$-1.959 \cdot 10^{-19}$	$-1.959 \cdot 10^{-19}$	0	$1.203 \cdot 10^{-20}$	$1.203 \cdot 10^{-20}$	0
$e^+ e^- \rightarrow e^+ e^-$	$1.345 \cdot 10^{-13}$	$1.345 \cdot 10^{-13}$	0	$8.177 \cdot 10^{-25}$	$8.177 \cdot 10^{-25}$	0
$t \bar{t} \rightarrow \tau^+ \tau^-$	$-1.004 \cdot 10^{-6}$	$-1.004 \cdot 10^{-6}$	0	$3.052 \cdot 10^{-8}$	$3.052 \cdot 10^{-8}$	0

## 2.25 ceWRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$HH \rightarrow W^+ e^- \bar{\nu}_e$	$-2.789 \cdot 10^{-18}$	$-2.789 \cdot 10^{-18}$	0	$9.573 \cdot 10^{-19}$	$9.573 \cdot 10^{-19}$	0
$HH \rightarrow z e^+ e^-$	$-1.268 \cdot 10^{-18}$	$-1.268 \cdot 10^{-18}$	0	$7.03 \cdot 10^{-18}$	$7.03 \cdot 10^{-18}$	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$-8.152 \cdot 10^{-19}$	$-8.152 \cdot 10^{-19}$	0	$5.145 \cdot 10^{-18}$	$5.145 \cdot 10^{-18}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	$-5.196 \cdot 10^{-9}$	$-5.196 \cdot 10^{-9}$	0	$1.049 \cdot 10^{-8}$	$1.049 \cdot 10^{-8}$	0
$H \gamma \rightarrow e^+ e^-$	$4.75 \cdot 10^{-23}$	$4.75 \cdot 10^{-23}$	0	$6.237 \cdot 10^{-13}$	$6.237 \cdot 10^{-13}$	0
$H z \rightarrow \mu^+ \mu^-$	$-6.21 \cdot 10^{-10}$	$-6.21 \cdot 10^{-10}$	0	$3.159 \cdot 10^{-8}$	$3.159 \cdot 10^{-8}$	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	$-7.421 \cdot 10^{-7}$	$-7.421 \cdot 10^{-7}$	0	$6.185 \cdot 10^{-7}$	$6.185 \cdot 10^{-7}$	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	$-2.94 \cdot 10^{-10}$	$-2.94 \cdot 10^{-10}$	0	$7.844 \cdot 10^{-10}$	$7.844 \cdot 10^{-10}$	0
$b \bar{t} \rightarrow e^- \bar{\nu}_e$	$-5.243 \cdot 10^{-14}$	$-5.243 \cdot 10^{-14}$	0	$9.233 \cdot 10^{-15}$	$9.233 \cdot 10^{-15}$	0
$c \bar{c} \rightarrow \mu^+ \mu^-$	$-6.761 \cdot 10^{-10}$	$-6.761 \cdot 10^{-10}$	0	$7.91 \cdot 10^{-10}$	$7.91 \cdot 10^{-10}$	0
$c \bar{s} \rightarrow \tau^+ \nu_\tau$	$-3.875 \cdot 10^{-7}$	$-3.875 \cdot 10^{-7}$	0	$3.986 \cdot 10^{-7}$	$3.986 \cdot 10^{-7}$	0
$d \bar{d} \rightarrow e^+ e^-$	$-1.732 \cdot 10^{-14}$	$-1.732 \cdot 10^{-14}$	0	$1 \cdot 10^{-14}$	$1 \cdot 10^{-14}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	$1.425 \cdot 10^{-13}$	$1.425 \cdot 10^{-13}$	0	$2.379 \cdot 10^{-13}$	$2.379 \cdot 10^{-13}$	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	$-6.105 \cdot 10^{-9}$	$-6.105 \cdot 10^{-9}$	0	$1.885 \cdot 10^{-10}$	$1.885 \cdot 10^{-10}$	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	$-1.595 \cdot 10^{-14}$	$-1.595 \cdot 10^{-14}$	0	$1.388 \cdot 10^{-13}$	$1.388 \cdot 10^{-13}$	0

$e^+\tau^- \rightarrow e^+\tau^-$	$-1.667 \cdot 10^{-7}$	$-1.667 \cdot 10^{-7}$	0	$1.604 \cdot 10^{-6}$	$1.604 \cdot 10^{-6}$	0
$e^+e^- \rightarrow \mu^+\mu^-$	$-3.723 \cdot 10^{-9}$	$-3.723 \cdot 10^{-9}$	0	$1.016 \cdot 10^{-9}$	$1.016 \cdot 10^{-9}$	0
$e^+e^- \rightarrow e^+e^-$	$4.598 \cdot 10^{-12}$	$4.598 \cdot 10^{-12}$	0	$7.178 \cdot 10^{-12}$	$7.178 \cdot 10^{-12}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$1.409 \cdot 10^{-7}$	$1.409 \cdot 10^{-7}$	0	$1.333 \cdot 10^{-7}$	$1.333 \cdot 10^{-7}$	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-4.586 \cdot 10^{-10}$	$-4.586 \cdot 10^{-10}$	0	$1.099 \cdot 10^{-9}$	$1.099 \cdot 10^{-9}$	0

## 2.26 ced

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+\mu^-$	0.005682	0.005682	0	0.06638	0.06638	0
$d\bar{d} \rightarrow e^+e^-$	0.02011	0.02011	0	0.2349	0.2349	0

## 2.27 cee

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.06607	0.06607	0	0.5146	0.5146	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.1189	-0.1189	0	0.5774	0.5774	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.3957	0.3957	0	3.082	3.082	0
$e^+e^- \rightarrow e^+e^-$	-14.72	-14.72	0	14.24	14.24	0

## 2.28 ceu

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.0127	-0.0127	0	0.0742	0.0742	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.02002	-0.02002	0	0.1145	0.1145	0

## 2.29 cld

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+\mu^-$	0.004348	0.004348	0	0.1022	0.1022	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.004327	0.004327	0	0.1005	0.1005	0
$d\bar{d} \rightarrow e^+e^-$	0.0003653	0.0003653	0	0.008589	0.008589	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	0.0001581	0.0001581	0	0.003671	0.003671	0

## 2.30 cle

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0.1049	0.1049	0	0.8226	0.8226	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	-0.2672	-0.2672	0	1	1	0
$e^+\nu_e \rightarrow e^+\nu_e$	-0.4926	-0.4926	0	1	1	0
$e^+\tau^- \rightarrow e^+\tau^-$	-0.4162	-0.4162	0	2	2	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.003811	0.003811	0	0.02987	0.02987	0
$e^+e^- \rightarrow e^+e^-$	-4.834	-4.834	0	2.006	2.006	0

## 2.31 cledqRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+\mu^-$	$-7.13 \cdot 10^{-11}$	$-7.13 \cdot 10^{-11}$	0	$3.538 \cdot 10^{-11}$	$3.538 \cdot 10^{-11}$	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	$-8.478 \cdot 10^{-16}$	$-8.478 \cdot 10^{-16}$	0	$4.138 \cdot 10^{-16}$	$4.138 \cdot 10^{-16}$	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	$-4.965 \cdot 10^{-12}$	$-4.965 \cdot 10^{-12}$	0	$2.477 \cdot 10^{-12}$	$2.477 \cdot 10^{-12}$	0
$d\bar{d} \rightarrow e^+e^-$	$-2.088 \cdot 10^{-21}$	$-2.088 \cdot 10^{-21}$	0	$1.033 \cdot 10^{-21}$	$1.033 \cdot 10^{-21}$	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	$-4.401 \cdot 10^{-17}$	$-4.401 \cdot 10^{-17}$	0	$2.208 \cdot 10^{-17}$	$2.208 \cdot 10^{-17}$	0

## 2.32 clequ1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$1.406 \cdot 10^{-12}$	$1.406 \cdot 10^{-12}$	0	$7.068 \cdot 10^{-13}$	$7.068 \cdot 10^{-13}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$6.587 \cdot 10^{-12}$	$6.587 \cdot 10^{-12}$	0	$3.266 \cdot 10^{-12}$	$3.266 \cdot 10^{-12}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$9.248 \cdot 10^{-10}$	$9.248 \cdot 10^{-10}$	0	$4.619 \cdot 10^{-10}$	$4.619 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$3.391 \cdot 10^{-5}$	$3.391 \cdot 10^{-5}$	0	$1.711 \cdot 10^{-5}$	$1.711 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$9.465 \cdot 10^{-18}$	$9.465 \cdot 10^{-18}$	0	$4.724 \cdot 10^{-18}$	$4.724 \cdot 10^{-18}$	0

## 2.33 clequ3Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$-4.583 \cdot 10^{-12}$	$-4.583 \cdot 10^{-12}$	0	$8.09 \cdot 10^{-12}$	$8.09 \cdot 10^{-12}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$2.104 \cdot 10^{-12}$	$2.104 \cdot 10^{-12}$	0	$1.665 \cdot 10^{-13}$	$1.665 \cdot 10^{-13}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$6.464 \cdot 10^{-10}$	$6.464 \cdot 10^{-10}$	0	$1.838 \cdot 10^{-10}$	$1.838 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	$-1.635 \cdot 10^{-5}$	$-1.635 \cdot 10^{-5}$	0	$2.187 \cdot 10^{-5}$	$2.187 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$1.083 \cdot 10^{-17}$	$1.083 \cdot 10^{-17}$	0	$5.542 \cdot 10^{-18}$	$5.542 \cdot 10^{-18}$	0

## 2.34 cll

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	0.3663	0.3663	0	2.664	2.664	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.05004	-0.05004	0	1.64	1.64	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	0.3407	0.3407	0	2.463	2.463	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0.6929	0.6929	0	2.327	2.327	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	0.1412	0.1412	0	0.4417	0.4417	0

$e^+\tau^- \rightarrow e^+\tau^-$	-0.007775	-0.007775	0	0.05046	0.05046	0
$e^+e^- \rightarrow \mu^+\mu^-$	0.02741	0.02741	0	0.1993	0.1993	0
$e^+e^- \rightarrow e^+e^-$	-0.0004772	-0.0004772	0	0.09101	0.09101	0

## 2.35 cll1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	0.01951	0.01951	0	0.0005913	0.0005913	0
$HH \rightarrow HHH$	$2.397 \cdot 10^{-8}$	$2.397 \cdot 10^{-8}$	0	$1.09 \cdot 10^{-9}$	$1.09 \cdot 10^{-9}$	0
$HH \rightarrow H\tau^+\tau^-$	$1.711 \cdot 10^{-11}$	$1.711 \cdot 10^{-11}$	0	$7.777 \cdot 10^{-13}$	$7.777 \cdot 10^{-13}$	0
$HH \rightarrow Hb\bar{b}$	$6.575 \cdot 10^{-11}$	$6.575 \cdot 10^{-11}$	0	$2.99 \cdot 10^{-12}$	$2.99 \cdot 10^{-12}$	0
$HH \rightarrow Hs\bar{s}$	$6.913 \cdot 10^{-14}$	$6.913 \cdot 10^{-14}$	0	$3.143 \cdot 10^{-15}$	$3.143 \cdot 10^{-15}$	0
$HH \rightarrow Ht\bar{t}$	$1.312 \cdot 10^{-5}$	$1.312 \cdot 10^{-5}$	0	$5.965 \cdot 10^{-7}$	$5.965 \cdot 10^{-7}$	0
$HH \rightarrow Hu\bar{u}$	$1.562 \cdot 10^{-17}$	$1.562 \cdot 10^{-17}$	0	$7.101 \cdot 10^{-19}$	$7.101 \cdot 10^{-19}$	0
$HH \rightarrow Hzz$	$1.982 \cdot 10^{-5}$	$1.982 \cdot 10^{-5}$	0	$9.012 \cdot 10^{-7}$	$9.012 \cdot 10^{-7}$	0
$HH \rightarrow W^+W^-$	104.6	104.6	0	7.131	7.131	0
$HH \rightarrow W^+W^-\gamma$	$-1.059 \cdot 10^{-6}$	$-1.059 \cdot 10^{-6}$	0	$4.574 \cdot 10^{-7}$	$4.574 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	$-2.998 \cdot 10^{-6}$	$-2.998 \cdot 10^{-6}$	0	$2.951 \cdot 10^{-6}$	$2.951 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	$2.305 \cdot 10^{-8}$	$2.305 \cdot 10^{-8}$	0	$4.855 \cdot 10^{-9}$	$4.855 \cdot 10^{-9}$	0
$HH \rightarrow W^-u\bar{d}$	$1.829 \cdot 10^{-7}$	$1.829 \cdot 10^{-7}$	0	$1.682 \cdot 10^{-7}$	$1.682 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	$6.749 \cdot 10^{-8}$	$6.749 \cdot 10^{-8}$	0	$3.615 \cdot 10^{-9}$	$3.615 \cdot 10^{-9}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	$3.269 \cdot 10^{-8}$	$3.269 \cdot 10^{-8}$	0	$1.486 \cdot 10^{-9}$	$1.486 \cdot 10^{-9}$	0
$HH \rightarrow zc\bar{c}$	$1.29 \cdot 10^{-6}$	$1.29 \cdot 10^{-6}$	0	$8.365 \cdot 10^{-8}$	$8.365 \cdot 10^{-8}$	0
$HH \rightarrow zd\bar{d}$	$2.075 \cdot 10^{-7}$	$2.075 \cdot 10^{-7}$	0	$1.109 \cdot 10^{-8}$	$1.109 \cdot 10^{-8}$	0
$HH \rightarrow ze^+e^-$	$7.707 \cdot 10^{-9}$	$7.707 \cdot 10^{-9}$	0	$6.343 \cdot 10^{-10}$	$6.343 \cdot 10^{-10}$	0
$HH \rightarrow zt\bar{t}$	$2.607 \cdot 10^{-5}$	$2.607 \cdot 10^{-5}$	0	$1.324 \cdot 10^{-6}$	$1.324 \cdot 10^{-6}$	0
$HH \rightarrow zz$	0.009213	0.009213	0	0.0002793	0.0002793	0
$HW^+ \rightarrow \gamma t\bar{b}$	$5.048 \cdot 10^{-6}$	$5.048 \cdot 10^{-6}$	0	$2.308 \cdot 10^{-7}$	$2.308 \cdot 10^{-7}$	0

$HW^+ \rightarrow \gamma u \bar{d}$	$1.251 \cdot 10^{-8}$	$1.251 \cdot 10^{-8}$	0	$6.284 \cdot 10^{-10}$	$6.284 \cdot 10^{-10}$	0
$HW^+ \rightarrow u \bar{d}$	0.003923	0.003923	0	0.0001971	0.0001971	0
$HW^- \rightarrow t \bar{b}$	0.05588	0.05588	0	0.0134	0.0134	0
$HW^- \rightarrow \gamma e^- \bar{\nu}_e$	$2.475 \cdot 10^{-9}$	$2.475 \cdot 10^{-9}$	0	$1.243 \cdot 10^{-10}$	$1.243 \cdot 10^{-10}$	0
$HW^- \rightarrow \mu^- \bar{\nu}_\mu$	0.0001188	0.0001188	0	$5.965 \cdot 10^{-6}$	$5.965 \cdot 10^{-6}$	0
$H\gamma \rightarrow b \bar{b}$	$5.531 \cdot 10^{-6}$	$5.531 \cdot 10^{-6}$	0	$8.383 \cdot 10^{-8}$	$8.383 \cdot 10^{-8}$	0
$H\gamma \rightarrow c \bar{c}$	$4.9 \cdot 10^{-6}$	$4.9 \cdot 10^{-6}$	0	$7.427 \cdot 10^{-8}$	$7.427 \cdot 10^{-8}$	0
$H\gamma \rightarrow d \bar{d}$	$1.862 \cdot 10^{-11}$	$1.862 \cdot 10^{-11}$	0	$2.822 \cdot 10^{-13}$	$2.822 \cdot 10^{-13}$	0
$H\gamma \rightarrow e^+ e^-$	$6.618 \cdot 10^{-13}$	$6.618 \cdot 10^{-13}$	0	$1.003 \cdot 10^{-14}$	$1.003 \cdot 10^{-14}$	0
$H\gamma \rightarrow t \bar{t}$	0.02663	0.02663	0	0.0004036	0.0004036	0
$H z \rightarrow \mu^+ \mu^-$	$8.873 \cdot 10^{-5}$	$8.873 \cdot 10^{-5}$	0	$7.352 \cdot 10^{-6}$	$7.352 \cdot 10^{-6}$	0
$H z \rightarrow \nu_\tau \bar{\nu}_\tau$	0.000684	0.000684	0	$2.073 \cdot 10^{-5}$	$2.073 \cdot 10^{-5}$	0
$H z \rightarrow b \bar{b}$	0.002115	0.002115	0	$8.276 \cdot 10^{-5}$	$8.276 \cdot 10^{-5}$	0
$H z \rightarrow s \bar{s}$	0.001979	0.001979	0	$7.712 \cdot 10^{-5}$	$7.712 \cdot 10^{-5}$	0
$H z \rightarrow t \bar{t}$	0.6316	0.6316	0	0.02145	0.02145	0
$H z \rightarrow u \bar{u}$	0.0008573	0.0008573	0	$4.601 \cdot 10^{-5}$	$4.601 \cdot 10^{-5}$	0
$W^+ W^- \rightarrow H b \bar{b}$	$4.111 \cdot 10^{-6}$	$4.111 \cdot 10^{-6}$	0	$3.517 \cdot 10^{-7}$	$3.517 \cdot 10^{-7}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$2.13 \cdot 10^{-7}$	$2.13 \cdot 10^{-7}$	0	$1.769 \cdot 10^{-8}$	$1.769 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H d \bar{d}$	$1.633 \cdot 10^{-7}$	$1.633 \cdot 10^{-7}$	0	$1.42 \cdot 10^{-8}$	$1.42 \cdot 10^{-8}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$7.864 \cdot 10^{-5}$	$7.864 \cdot 10^{-5}$	0	$7.394 \cdot 10^{-6}$	$7.394 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow W^+ W^-$	6.389	6.389	0	0.4648	0.4648	0
$\bar{b} t \rightarrow \bar{d} u$	0.007145	0.007145	0	0.0003115	0.0003115	0
$\gamma W^+ \rightarrow z W^+$	0.02802	0.02802	0	0.0007971	0.0007971	0
$\mu^+ \mu^- \rightarrow \tau^+ \tau^-$	0.07076	0.07076	0	0.5189	0.5189	0
$\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$	-0.1296	-0.1296	0	2.769	2.769	0
$\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$	0.014	0.014	0	0.1016	0.1016	0
$b \bar{b} \rightarrow \mu^+ \mu^-$	0.0001086	0.0001086	0	$6.182 \cdot 10^{-6}$	$6.182 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow \nu_e \bar{\nu}_e$	0.0001393	0.0001393	0	$5.472 \cdot 10^{-6}$	$5.472 \cdot 10^{-6}$	0
$b \bar{b} \rightarrow b \bar{b}$	-0.0257	-0.0257	0	0.000319	0.000319	0



$b\bar{b} \rightarrow d\bar{d}$	0.001314	0.001314	0	$5.529 \cdot 10^{-5}$	$5.529 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow t\bar{t}$	0.004444	0.004444	0	0.002191	0.002191	0
$b\bar{b} \rightarrow u\bar{u}$	0.0002318	0.0002318	0	$1.125 \cdot 10^{-5}$	$1.125 \cdot 10^{-5}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	$1.38 \cdot 10^{-5}$	$1.38 \cdot 10^{-5}$	0	$6.015 \cdot 10^{-7}$	$6.015 \cdot 10^{-7}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	0.0001385	0.0001385	0	$7.618 \cdot 10^{-6}$	$7.618 \cdot 10^{-6}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	0.001156	0.001156	0	$5.042 \cdot 10^{-5}$	$5.042 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.303 \cdot 10^{-5}$	$-1.303 \cdot 10^{-5}$	0	$1.936 \cdot 10^{-7}$	$1.936 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow e^+ e^-$	0.0004017	0.0004017	0	$2.165 \cdot 10^{-5}$	$2.165 \cdot 10^{-5}$	0
$d\bar{d} \rightarrow s\bar{s}$	$3.174 \cdot 10^{-6}$	$3.174 \cdot 10^{-6}$	0	$4.02 \cdot 10^{-7}$	$4.02 \cdot 10^{-7}$	0
$e^+ \nu_\mu \rightarrow e^+ \nu_\mu$	0.0008313	0.0008313	0	0.0001346	0.0001346	0
$e^+ \nu_e \rightarrow \mu^+ \nu_\mu$	0.8373	0.8373	0	3.993	3.993	0
$e^+ \nu_e \rightarrow e^+ \nu_e$	1.131	1.131	0	2.369	2.369	0
$e^+ \tau^- \rightarrow e^+ \tau^-$	-0.1278	-0.1278	0	0.5698	0.5698	0
$e^+ e^- \rightarrow \mu^+ \mu^-$	0.4248	0.4248	0	3.108	3.108	0
$e^+ e^- \rightarrow e^+ e^-$	-15.48	-15.48	0	13.4	13.4	0
$s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$	0.0005585	0.0005585	0	$2.143 \cdot 10^{-5}$	$2.143 \cdot 10^{-5}$	0
$s\bar{s} \rightarrow s\bar{s}$	-0.05781	-0.05781	0	0.003132	0.003132	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	0.0002419	0.0002419	0	$1.293 \cdot 10^{-5}$	$1.293 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	0.0003946	0.0003946	0	$1.968 \cdot 10^{-5}$	$1.968 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow c\bar{c}$	0.0006619	0.0006619	0	$3.11 \cdot 10^{-5}$	$3.11 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	0.0002823	0.0002823	0	$1.414 \cdot 10^{-5}$	$1.414 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow s\bar{s}$	0.0004622	0.0004622	0	$2.25 \cdot 10^{-5}$	$2.25 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow t\bar{t}$	-0.1657	-0.1657	0	0.004221	0.004221	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	0.0001296	0.0001296	0	$5.651 \cdot 10^{-6}$	$5.651 \cdot 10^{-6}$	0
$u\bar{d} \rightarrow c\bar{s}$	0.001445	0.001445	0	$6.302 \cdot 10^{-5}$	$6.302 \cdot 10^{-5}$	0
$u\bar{d} \rightarrow u\bar{d}$	-0.001868	-0.001868	0	$6.335 \cdot 10^{-5}$	$6.335 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	0.0004755	0.0004755	0	$2.382 \cdot 10^{-5}$	$2.382 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow c\bar{c}$	0.0004056	0.0004056	0	$1.948 \cdot 10^{-5}$	$1.948 \cdot 10^{-5}$	0
$u\bar{u} \rightarrow u\bar{u}$	-0.02227	-0.02227	0	0.0003374	0.0003374	0

$zz \rightarrow W^+W^-$	8.222	8.222	0	0.3955	0.3955	0
$zz \rightarrow zz$	0.009684	0.009684	0	0.0002935	0.0002935	0

### 2.36 clq1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+\mu^-$	0.0437	0.0437	0	0.2301	0.2301	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	-0.07019	-0.07019	0	0.3006	0.3006	0
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.01725	-0.01725	0	0.0742	0.0742	0
$d\bar{d} \rightarrow e^+e^-$	0.03965	0.03965	0	0.2088	0.2088	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	-0.004041	-0.004041	0	0.0173	0.0173	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0.05361	0.05361	0	0.286	0.286	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.02746	-0.02746	0	0.1145	0.1145	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	0.0445	0.0445	0	0.2336	0.2336	0

### 2.37 clq3

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow \mu^+\mu^-$	0.01261	0.01261	0	0.06638	0.06638	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0.01583	0.01583	0	0.06779	0.06779	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	0.001495	0.001495	0	0.007065	0.007065	0
$c\bar{c} \rightarrow \mu^+\mu^-$	0.02037	0.02037	0	0.08761	0.08761	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	0.1253	0.1253	0	0.5922	0.5922	0
$d\bar{d} \rightarrow e^+e^-$	0.04461	0.04461	0	0.2349	0.2349	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	0.06237	0.06237	0	0.267	0.267	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0.02567	0.02567	0	0.1393	0.1393	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0.05464	0.05464	0	0.2314	0.2314	0

$u\bar{d} \rightarrow \mu^+\nu_\mu$	0.01405	0.01405	0	0.06638	0.06638	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	0.04994	0.04994	0	0.2622	0.2622	0

### 2.38 clu

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.00791	-0.00791	0	0.093	0.093	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0.001587	0.001587	0	0.003579	0.003579	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.007896	-0.007896	0	0.06564	0.06564	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	-0.0007614	-0.0007614	0	0.008839	0.008839	0

### 2.39 cqd1

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow b\bar{b}$	0.08049	0.08049	0	2.203	2.203	0
$b\bar{b} \rightarrow d\bar{d}$	-0.001023	-0.001023	0	0.07063	0.07063	0
$b\bar{b} \rightarrow t\bar{t}$	-0.007418	-0.007418	0	0.399	0.399	0
$b\bar{b} \rightarrow u\bar{u}$	-0.005792	-0.005792	0	0.4137	0.4137	0
$d\bar{d} \rightarrow c\bar{c}$	-0.01361	-0.01361	0	0.9727	0.9727	0
$d\bar{d} \rightarrow s\bar{s}$	-0.0255	-0.0255	0	1.754	1.754	0
$s\bar{s} \rightarrow s\bar{s}$	0.1876	0.1876	0	2.033	2.033	0
$t\bar{t} \rightarrow d\bar{d}$	-0.007305	-0.007305	0	0.4004	0.4004	0
$t\bar{t} \rightarrow s\bar{s}$	-0.005584	-0.005584	0	0.2774	0.2774	0
$u\bar{d} \rightarrow u\bar{d}$	0.02099	0.02099	0	1	1	0

### 2.40 cqd8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow b\bar{b}$	-3.999	-3.999	0	0.4896	0.4896	0
$b\bar{b} \rightarrow d\bar{d}$	0.04653	0.04653	0	0.0157	0.0157	0
$b\bar{b} \rightarrow t\bar{t}$	0.2823	0.2823	0	0.08867	0.08867	0
$b\bar{b} \rightarrow u\bar{u}$	0.2724	0.2724	0	0.09194	0.09194	0
$d\bar{d} \rightarrow c\bar{c}$	0.6405	0.6405	0	0.2161	0.2161	0
$d\bar{d} \rightarrow s\bar{s}$	1.155	1.155	0	0.3898	0.3898	0
$s\bar{s} \rightarrow s\bar{s}$	-10.27	-10.27	0	0.4517	0.4517	0
$t\bar{t} \rightarrow d\bar{d}$	0.2833	0.2833	0	0.08897	0.08897	0
$t\bar{t} \rightarrow s\bar{s}$	0.2023	0.2023	0	0.06164	0.06164	0
$u\bar{d} \rightarrow u\bar{d}$	-0.9475	-0.9475	0	0.2222	0.2222	0

## 2.41 cqe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow \mu^+\mu^-$	-0.0004155	-0.0004155	0	0.009537	0.009537	0
$c\bar{c} \rightarrow \mu^+\mu^-$	-0.003904	-0.003904	0	0.093	0.093	0
$d\bar{d} \rightarrow e^+e^-$	-0.0006326	-0.0006326	0	0.0145	0.0145	0
$t\bar{t} \rightarrow \tau^+\tau^-$	-0.00446	-0.00446	0	0.06564	0.06564	0

## 2.42 cqql

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow b\bar{b}$	-3.169	-3.169	0	4.952	4.952	0
$b\bar{b} \rightarrow d\bar{d}$	0.2889	0.2889	0	2.638	2.638	0
$b\bar{b} \rightarrow t\bar{t}$	-0.1485	-0.1485	0	0.5427	0.5427	0

$b\bar{b} \rightarrow u\bar{u}$	-0.05206	-0.05206	0	0.5092	0.5092	0
$d\bar{d} \rightarrow c\bar{c}$	$-7.73 \cdot 10^{-5}$	$-7.73 \cdot 10^{-5}$	0	0.0007571	0.0007571	0
$d\bar{d} \rightarrow s\bar{s}$	0.001767	0.001767	0	0.01614	0.01614	0
$s\bar{s} \rightarrow s\bar{s}$	-16.45	-16.45	0	8.111	8.111	0
$t\bar{t} \rightarrow c\bar{c}$	0.1598	0.1598	0	1.447	1.447	0
$t\bar{t} \rightarrow d\bar{d}$	-0.06275	-0.06275	0	0.6307	0.6307	0
$t\bar{t} \rightarrow s\bar{s}$	-0.1018	-0.1018	0	1.013	1.013	0
$t\bar{t} \rightarrow t\bar{t}$	-5.95	-5.95	0	17.24	17.24	0
$u\bar{d} \rightarrow u\bar{d}$	0.08012	0.08012	0	0.3721	0.3721	0
$u\bar{u} \rightarrow c\bar{c}$	0.09855	0.09855	0	0.9022	0.9022	0
$u\bar{u} \rightarrow u\bar{u}$	-3.241	-3.241	0	4.991	4.991	0

## 2.43 cqql1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$\bar{b}t \rightarrow \bar{d}u$	0.2581	0.2581	0	3.659	3.659	0
$b\bar{b} \rightarrow b\bar{b}$	-3.169	-3.169	0	4.952	4.952	0
$b\bar{b} \rightarrow d\bar{d}$	1.833	1.833	0	2.638	2.638	0
$b\bar{b} \rightarrow t\bar{t}$	-0.1485	-0.1485	0	0.5427	0.5427	0
$d\bar{d} \rightarrow s\bar{s}$	0.01122	0.01122	0	0.01614	0.01614	0
$s\bar{s} \rightarrow s\bar{s}$	-16.45	-16.45	0	8.111	8.111	0
$t\bar{t} \rightarrow c\bar{c}$	1.085	1.085	0	1.447	1.447	0
$t\bar{t} \rightarrow t\bar{t}$	-5.95	-5.95	0	17.24	17.24	0
$u\bar{d} \rightarrow c\bar{s}$	0.05221	0.05221	0	0.7402	0.7402	0
$u\bar{d} \rightarrow u\bar{d}$	0.08012	0.08012	0	0.3721	0.3721	0
$u\bar{u} \rightarrow c\bar{c}$	0.627	0.627	0	0.9022	0.9022	0
$u\bar{u} \rightarrow u\bar{u}$	-3.241	-3.241	0	4.991	4.991	0

## 2.44 cqq3

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	1.548	1.548	0	14.64	14.64	0
$b\bar{b} \rightarrow b\bar{b}$	-3.169	-3.169	0	4.952	4.952	0
$b\bar{b} \rightarrow d\bar{d}$	0.2889	0.2889	0	2.638	2.638	0
$b\bar{b} \rightarrow t\bar{t}$	0.4162	0.4162	0	1.99	1.99	0
$b\bar{b} \rightarrow u\bar{u}$	0.05206	0.05206	0	0.5092	0.5092	0
$d\bar{d} \rightarrow c\bar{c}$	$7.73 \cdot 10^{-5}$	$7.73 \cdot 10^{-5}$	0	0.0007571	0.0007571	0
$d\bar{d} \rightarrow s\bar{s}$	0.001767	0.001767	0	0.01614	0.01614	0
$s\bar{s} \rightarrow s\bar{s}$	-16.45	-16.45	0	8.111	8.111	0
$t\bar{t} \rightarrow c\bar{c}$	0.1598	0.1598	0	1.447	1.447	0
$t\bar{t} \rightarrow d\bar{d}$	0.06275	0.06275	0	0.6307	0.6307	0
$t\bar{t} \rightarrow s\bar{s}$	0.1018	0.1018	0	1.013	1.013	0
$t\bar{t} \rightarrow t\bar{t}$	-5.95	-5.95	0	17.24	17.24	0
$u\bar{d} \rightarrow c\bar{s}$	0.3133	0.3133	0	2.961	2.961	0
$u\bar{d} \rightarrow u\bar{d}$	-0.5919	-0.5919	0	1.364	1.364	0
$u\bar{u} \rightarrow c\bar{c}$	0.09855	0.09855	0	0.9022	0.9022	0
$u\bar{u} \rightarrow u\bar{u}$	-3.241	-3.241	0	4.991	4.991	0

## 2.45 cqq31

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	-0.2581	-0.2581	0	3.659	3.659	0
$b\bar{b} \rightarrow b\bar{b}$	-3.169	-3.169	0	4.952	4.952	0
$b\bar{b} \rightarrow d\bar{d}$	1.833	1.833	0	2.638	2.638	0
$b\bar{b} \rightarrow t\bar{t}$	0.4162	0.4162	0	1.99	1.99	0

$b\bar{b} \rightarrow u\bar{u}$	0.636	0.636	0	2.037	2.037	0
$d\bar{d} \rightarrow c\bar{c}$	0.000954	0.000954	0	0.003028	0.003028	0
$d\bar{d} \rightarrow s\bar{s}$	0.01122	0.01122	0	0.01614	0.01614	0
$s\bar{s} \rightarrow s\bar{s}$	-16.45	-16.45	0	8.111	8.111	0
$t\bar{t} \rightarrow c\bar{c}$	1.085	1.085	0	1.447	1.447	0
$t\bar{t} \rightarrow d\bar{d}$	0.946	0.946	0	2.523	2.523	0
$t\bar{t} \rightarrow s\bar{s}$	1.423	1.423	0	4.051	4.051	0
$t\bar{t} \rightarrow t\bar{t}$	-5.95	-5.95	0	17.24	17.24	0
$u\bar{d} \rightarrow c\bar{s}$	-0.05221	-0.05221	0	0.7402	0.7402	0
$u\bar{d} \rightarrow u\bar{d}$	-0.5919	-0.5919	0	1.364	1.364	0
$u\bar{u} \rightarrow c\bar{c}$	0.627	0.627	0	0.9022	0.9022	0
$u\bar{u} \rightarrow u\bar{u}$	-3.241	-3.241	0	4.991	4.991	0

## 2.46 cqul

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow t\bar{t}$	-0.1033	-0.1033	0	0.04066	0.04066	0
$b\bar{b} \rightarrow u\bar{u}$	0.009862	0.009862	0	0.3391	0.3391	0
$d\bar{d} \rightarrow c\bar{c}$	$2.075 \cdot 10^{-5}$	$2.075 \cdot 10^{-5}$	0	0.0007248	0.0007248	0
$t\bar{t} \rightarrow c\bar{c}$	0.04117	0.04117	0	1.116	1.116	0
$t\bar{t} \rightarrow d\bar{d}$	0.00494	0.00494	0	0.3797	0.3797	0
$t\bar{t} \rightarrow s\bar{s}$	$-7.95 \cdot 10^{-5}$	$-7.95 \cdot 10^{-5}$	0	0.2071	0.2071	0
$t\bar{t} \rightarrow t\bar{t}$	-0.2021	-0.2021	0	8.709	8.709	0
$u\bar{d} \rightarrow u\bar{d}$	-0.03746	-0.03746	0	1	1	0
$u\bar{u} \rightarrow c\bar{c}$	0.0005178	0.0005178	0	0.01849	0.01849	0
$u\bar{u} \rightarrow u\bar{u}$	-0.03973	-0.03973	0	3.231	3.231	0

## 2.47 cqu8

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$b\bar{b} \rightarrow t\bar{t}$	-0.08473	-0.08473	0	0.009036	0.009036	0
$b\bar{b} \rightarrow u\bar{u}$	0.2233	0.2233	0	0.07537	0.07537	0
$d\bar{d} \rightarrow c\bar{c}$	0.0004783	0.0004783	0	0.0001611	0.0001611	0
$t\bar{t} \rightarrow c\bar{c}$	0.7744	0.7744	0	0.2481	0.2481	0
$t\bar{t} \rightarrow d\bar{d}$	0.2697	0.2697	0	0.08438	0.08438	0
$t\bar{t} \rightarrow s\bar{s}$	0.156	0.156	0	0.04602	0.04602	0
$t\bar{t} \rightarrow t\bar{t}$	-3.926	-3.926	0	1.898	1.898	0
$u\bar{d} \rightarrow u\bar{d}$	-0.8914	-0.8914	0	0.2222	0.2222	0
$u\bar{u} \rightarrow c\bar{c}$	0.01218	0.01218	0	0.004108	0.004108	0
$u\bar{u} \rightarrow u\bar{u}$	-0.8683	-0.8683	0	0.718	0.718	0

## 2.48 cquqd11Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-7.656 \cdot 10^{-11}$	$-7.656 \cdot 10^{-11}$	0	$7.368 \cdot 10^{-11}$	$7.368 \cdot 10^{-11}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0002704	-0.0002704	0	0.0003109	0.0003109	0
$b\bar{b} \rightarrow u\bar{u}$	$-6.305 \cdot 10^{-15}$	$-6.305 \cdot 10^{-15}$	0	$1.504 \cdot 10^{-14}$	$1.504 \cdot 10^{-14}$	0
$d\bar{d} \rightarrow c\bar{c}$	$2.693 \cdot 10^{-15}$	$2.693 \cdot 10^{-15}$	0	$1.387 \cdot 10^{-17}$	$1.387 \cdot 10^{-17}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-4.986 \cdot 10^{-11}$	$-4.986 \cdot 10^{-11}$	0	$1.345 \cdot 10^{-10}$	$1.345 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-8.023 \cdot 10^{-9}$	$-8.023 \cdot 10^{-9}$	0	$2.909 \cdot 10^{-8}$	$2.909 \cdot 10^{-8}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-4.056 \cdot 10^{-15}$	$-4.056 \cdot 10^{-15}$	0	$3.756 \cdot 10^{-15}$	$3.756 \cdot 10^{-15}$	0
$u\bar{d} \rightarrow u\bar{d}$	$-1.116 \cdot 10^{-21}$	$-1.116 \cdot 10^{-21}$	0	$1.129 \cdot 10^{-19}$	$1.129 \cdot 10^{-19}$	0



## 2.49 cquqd1Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-3.549 \cdot 10^{-10}$	$-3.549 \cdot 10^{-10}$	0	$1.771 \cdot 10^{-10}$	$1.771 \cdot 10^{-10}$	0
$b\bar{b} \rightarrow t\bar{t}$	-0.0002704	-0.0002704	0	0.0003109	0.0003109	0
$b\bar{b} \rightarrow u\bar{u}$	$-8.948 \cdot 10^{-14}$	$-8.948 \cdot 10^{-14}$	0	$4.436 \cdot 10^{-14}$	$4.436 \cdot 10^{-14}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-3.845 \cdot 10^{-14}$	$-3.845 \cdot 10^{-14}$	0	$1.914 \cdot 10^{-14}$	$1.914 \cdot 10^{-14}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-7.04 \cdot 10^{-10}$	$-7.04 \cdot 10^{-10}$	0	$3.545 \cdot 10^{-10}$	$3.545 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-2.789 \cdot 10^{-7}$	$-2.789 \cdot 10^{-7}$	0	$1.406 \cdot 10^{-7}$	$1.406 \cdot 10^{-7}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-1.919 \cdot 10^{-14}$	$-1.919 \cdot 10^{-14}$	0	$9.582 \cdot 10^{-15}$	$9.582 \cdot 10^{-15}$	0
$u\bar{d} \rightarrow u\bar{d}$	$-1.116 \cdot 10^{-21}$	$-1.116 \cdot 10^{-21}$	0	$1.129 \cdot 10^{-19}$	$1.129 \cdot 10^{-19}$	0

## 2.50 cquqd81Re

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$-8.943 \cdot 10^{-12}$	$-8.943 \cdot 10^{-12}$	0	$1.268 \cdot 10^{-13}$	$1.268 \cdot 10^{-13}$	0
$b\bar{b} \rightarrow t\bar{t}$	$8.316 \cdot 10^{-5}$	$8.316 \cdot 10^{-5}$	0	$5.916 \cdot 10^{-5}$	$5.916 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow u\bar{u}$	$-2.77 \cdot 10^{-14}$	$-2.77 \cdot 10^{-14}$	0	$4.079 \cdot 10^{-15}$	$4.079 \cdot 10^{-15}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.798 \cdot 10^{-14}$	$-1.798 \cdot 10^{-14}$	0	$4.137 \cdot 10^{-15}$	$4.137 \cdot 10^{-15}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-2.116 \cdot 10^{-10}$	$-2.116 \cdot 10^{-10}$	0	$3.151 \cdot 10^{-11}$	$3.151 \cdot 10^{-11}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-7.003 \cdot 10^{-8}$	$-7.003 \cdot 10^{-8}$	0	$8.658 \cdot 10^{-9}$	$8.658 \cdot 10^{-9}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-4.931 \cdot 10^{-15}$	$-4.931 \cdot 10^{-15}$	0	$6.914 \cdot 10^{-16}$	$6.914 \cdot 10^{-16}$	0
$u\bar{d} \rightarrow u\bar{d}$	$1.87 \cdot 10^{-20}$	$1.87 \cdot 10^{-20}$	0	$1.255 \cdot 10^{-20}$	$1.255 \cdot 10^{-20}$	0

## 2.51 cquqd8Re

interference

square

	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
$\bar{b}t \rightarrow \bar{d}u$	$5.745 \cdot 10^{-27}$	$5.745 \cdot 10^{-27}$	0		$3.936 \cdot 10^{-11}$	$3.936 \cdot 10^{-11}$	0
$b\bar{b} \rightarrow t\bar{t}$	$8.316 \cdot 10^{-5}$	$8.316 \cdot 10^{-5}$	0		$5.916 \cdot 10^{-5}$	$5.916 \cdot 10^{-5}$	0
$b\bar{b} \rightarrow u\bar{u}$	$1.014 \cdot 10^{-15}$	$1.014 \cdot 10^{-15}$	0		$9.858 \cdot 10^{-15}$	$9.858 \cdot 10^{-15}$	0
$d\bar{d} \rightarrow c\bar{c}$	$1.486 \cdot 10^{-15}$	$1.486 \cdot 10^{-15}$	0		$4.254 \cdot 10^{-15}$	$4.254 \cdot 10^{-15}$	0
$t\bar{t} \rightarrow d\bar{d}$	$6.664 \cdot 10^{-12}$	$6.664 \cdot 10^{-12}$	0		$7.878 \cdot 10^{-11}$	$7.878 \cdot 10^{-11}$	0
$t\bar{t} \rightarrow s\bar{s}$	$2.631 \cdot 10^{-10}$	$2.631 \cdot 10^{-10}$	0		$3.124 \cdot 10^{-8}$	$3.124 \cdot 10^{-8}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-6.316 \cdot 10^{-31}$	$-6.316 \cdot 10^{-31}$	0		$2.129 \cdot 10^{-15}$	$2.129 \cdot 10^{-15}$	0
$u\bar{d} \rightarrow u\bar{d}$	$1.87 \cdot 10^{-20}$	$1.87 \cdot 10^{-20}$	0		$1.255 \cdot 10^{-20}$	$1.255 \cdot 10^{-20}$	0

## 2.52 cuBRe

	interference				square		
	mod1	mod2	1 - mod2/mod1		mod1	mod2	1 - mod2/mod1
$HH \rightarrow z c \bar{c}$	$6.424 \cdot 10^{-11}$	$6.424 \cdot 10^{-11}$	0		$1.587 \cdot 10^{-11}$	$1.587 \cdot 10^{-11}$	0
$HH \rightarrow z t \bar{t}$	$-2.443 \cdot 10^{-6}$	$-2.443 \cdot 10^{-6}$	0		$1.943 \cdot 10^{-5}$	$1.943 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t \bar{b}$	$1.334 \cdot 10^{-6}$	$1.334 \cdot 10^{-6}$	0		$4.534 \cdot 10^{-6}$	$4.534 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	$6.644 \cdot 10^{-17}$	$6.644 \cdot 10^{-17}$	0		$4.916 \cdot 10^{-16}$	$4.916 \cdot 10^{-16}$	0
$H\gamma \rightarrow c \bar{c}$	$7.068 \cdot 10^{-9}$	$7.068 \cdot 10^{-9}$	0		$1.304 \cdot 10^{-5}$	$1.304 \cdot 10^{-5}$	0
$H\gamma \rightarrow t \bar{t}$	0.8502	0.8502	0		1.015	1.015	0
$H z \rightarrow t \bar{t}$	-0.1316	-0.1316	0		0.2625	0.2625	0
$H z \rightarrow u \bar{u}$	$2.466 \cdot 10^{-12}$	$2.466 \cdot 10^{-12}$	0		$7.059 \cdot 10^{-11}$	$7.059 \cdot 10^{-11}$	0
$W^+ W^- \rightarrow H c \bar{c}$	$-6.204 \cdot 10^{-12}$	$-6.204 \cdot 10^{-12}$	0		$4.154 \cdot 10^{-13}$	$4.154 \cdot 10^{-13}$	0
$W^+ W^- \rightarrow H t \bar{t}$	$1.939 \cdot 10^{-7}$	$1.939 \cdot 10^{-7}$	0		$5.272 \cdot 10^{-8}$	$5.272 \cdot 10^{-8}$	0
$b\bar{b} \rightarrow t\bar{t}$	0.007725	0.007725	0		0.0008204	0.0008204	0
$b\bar{b} \rightarrow u\bar{u}$	$6.427 \cdot 10^{-15}$	$6.427 \cdot 10^{-15}$	0		$1.635 \cdot 10^{-13}$	$1.635 \cdot 10^{-13}$	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-1.386 \cdot 10^{-7}$	$-1.386 \cdot 10^{-7}$	0		$1.719 \cdot 10^{-7}$	$1.719 \cdot 10^{-7}$	0
$d\bar{d} \rightarrow c\bar{c}$	$3.478 \cdot 10^{-8}$	$3.478 \cdot 10^{-8}$	0		$6.087 \cdot 10^{-9}$	$6.087 \cdot 10^{-9}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	0.001203	0.001203	0		0.0003262	0.0003262	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.002931	-0.002931	0		0.003701	0.003701	0

$t\bar{t} \rightarrow c\bar{c}$	$-0.002096$	$-0.002096$	0	$0.003489$	$0.003489$	0
$t\bar{t} \rightarrow d\bar{d}$	$2.489 \cdot 10^{-5}$	$2.489 \cdot 10^{-5}$	0	$0.001224$	$0.001224$	0
$t\bar{t} \rightarrow s\bar{s}$	$0.0001995$	$0.0001995$	0	$0.001253$	$0.001253$	0
$t\bar{t} \rightarrow t\bar{t}$	$0.1717$	$0.1717$	0	$0.1057$	$0.1057$	0
$u\bar{d} \rightarrow u\bar{d}$	$-1.567 \cdot 10^{-13}$	$-1.567 \cdot 10^{-13}$	0	$2.314 \cdot 10^{-13}$	$2.314 \cdot 10^{-13}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$1.633 \cdot 10^{-13}$	$1.633 \cdot 10^{-13}$	0	$5.525 \cdot 10^{-14}$	$5.525 \cdot 10^{-14}$	0
$u\bar{u} \rightarrow c\bar{c}$	$-2.39 \cdot 10^{-7}$	$-2.39 \cdot 10^{-7}$	0	$6.797 \cdot 10^{-8}$	$6.797 \cdot 10^{-8}$	0
$u\bar{u} \rightarrow u\bar{u}$	$-1.403 \cdot 10^{-11}$	$-1.403 \cdot 10^{-11}$	0	$2.652 \cdot 10^{-12}$	$2.652 \cdot 10^{-12}$	0

## 2.53 cuGRe

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	0.002312	0.002312	0	0.03	0.03	0
$b\bar{b} \rightarrow u\bar{u}$	$-2.992 \cdot 10^{-11}$	$-2.992 \cdot 10^{-11}$	0	$5.978 \cdot 10^{-12}$	$5.978 \cdot 10^{-12}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	0	$2.226 \cdot 10^{-7}$	$2.226 \cdot 10^{-7}$	0
$gg \rightarrow t\bar{t}$	-0.6238	-0.6238	0	0.1177	0.1177	0
$gg \rightarrow u\bar{u}$	$-7.226 \cdot 10^{-11}$	$-7.226 \cdot 10^{-11}$	0	$1.49 \cdot 10^{-11}$	$1.49 \cdot 10^{-11}$	0
$t\bar{t} \rightarrow c\bar{c}$	-0.1971	-0.1971	0	0.03791	0.03791	0
$t\bar{t} \rightarrow d\bar{d}$	-0.1971	-0.1971	0	0.04477	0.04477	0
$t\bar{t} \rightarrow s\bar{s}$	-0.1971	-0.1971	0	0.04582	0.04582	0
$t\bar{t} \rightarrow t\bar{t}$	-0.2105	-0.2105	0	0.7204	0.7204	0
$u\bar{d} \rightarrow u\bar{d}$	$-3.103 \cdot 10^{-11}$	$-3.103 \cdot 10^{-11}$	0	$8.694 \cdot 10^{-12}$	$8.694 \cdot 10^{-12}$	0
$u\bar{u} \rightarrow c\bar{c}$	$-1.034 \cdot 10^{-5}$	$-1.034 \cdot 10^{-5}$	0	$7.383 \cdot 10^{-7}$	$7.383 \cdot 10^{-7}$	0
$u\bar{u} \rightarrow u\bar{u}$	$-1.022 \cdot 10^{-10}$	$-1.022 \cdot 10^{-10}$	0	$1.475 \cdot 10^{-11}$	$1.475 \cdot 10^{-11}$	0

## 2.54 cuHRe

interference

square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow Ht\bar{t}$	$2.259 \cdot 10^{-5}$	$2.259 \cdot 10^{-5}$	0	$6.435 \cdot 10^{-6}$	$6.435 \cdot 10^{-6}$	0
$HH \rightarrow Hu\bar{u}$	$-8.618 \cdot 10^{-16}$	$-8.618 \cdot 10^{-16}$	0	$7.337 \cdot 10^{-16}$	$7.337 \cdot 10^{-16}$	0
$HH \rightarrow W^+\bar{t}b$	$3.413 \cdot 10^{-5}$	$3.413 \cdot 10^{-5}$	0	$1.92 \cdot 10^{-5}$	$1.92 \cdot 10^{-5}$	0
$HH \rightarrow W^-u\bar{d}$	$-5.875 \cdot 10^{-16}$	$-5.875 \cdot 10^{-16}$	0	$2.33 \cdot 10^{-16}$	$2.33 \cdot 10^{-16}$	0
$HH \rightarrow zc\bar{c}$	$-9.397 \cdot 10^{-11}$	$-9.397 \cdot 10^{-11}$	0	$1.456 \cdot 10^{-10}$	$1.456 \cdot 10^{-10}$	0
$HH \rightarrow zt\bar{t}$	$-1.176 \cdot 10^{-6}$	$-1.176 \cdot 10^{-6}$	0	$4.152 \cdot 10^{-7}$	$4.152 \cdot 10^{-7}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$1.39 \cdot 10^{-8}$	$1.39 \cdot 10^{-8}$	0	$2.031 \cdot 10^{-9}$	$2.031 \cdot 10^{-9}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$5.907 \cdot 10^{-17}$	$5.907 \cdot 10^{-17}$	0	$2.036 \cdot 10^{-18}$	$2.036 \cdot 10^{-18}$	0
$HW^+ \rightarrow u\bar{d}$	$-8.694 \cdot 10^{-12}$	$-8.694 \cdot 10^{-12}$	0	$9.722 \cdot 10^{-12}$	$9.722 \cdot 10^{-12}$	0
$HW^- \rightarrow \bar{t}b$	-0.107	-0.107	0	0.04579	0.04579	0
$H\gamma \rightarrow c\bar{c}$	$-3.17 \cdot 10^{-5}$	$-3.17 \cdot 10^{-5}$	0	$9.609 \cdot 10^{-7}$	$9.609 \cdot 10^{-7}$	0
$H\gamma \rightarrow t\bar{t}$	-0.1762	-0.1762	0	0.005341	0.005341	0
$H z \rightarrow t\bar{t}$	-0.1342	-0.1342	0	0.04811	0.04811	0
$H z \rightarrow u\bar{u}$	$1.627 \cdot 10^{-12}$	$1.627 \cdot 10^{-12}$	0	$9.363 \cdot 10^{-12}$	$9.363 \cdot 10^{-12}$	0
$W^+W^- \rightarrow Hb\bar{b}$	$1.897 \cdot 10^{-6}$	$1.897 \cdot 10^{-6}$	0	$1.673 \cdot 10^{-7}$	$1.673 \cdot 10^{-7}$	0
$W^+W^- \rightarrow Hc\bar{c}$	$-1.159 \cdot 10^{-11}$	$-1.159 \cdot 10^{-11}$	0	$4.605 \cdot 10^{-12}$	$4.605 \cdot 10^{-12}$	0
$W^+W^- \rightarrow Hd\bar{d}$	$7.24 \cdot 10^{-17}$	$7.24 \cdot 10^{-17}$	0	$3.7 \cdot 10^{-27}$	$3.7 \cdot 10^{-27}$	0
$W^+W^- \rightarrow Ht\bar{t}$	$3.286 \cdot 10^{-7}$	$3.286 \cdot 10^{-7}$	0	$3.322 \cdot 10^{-7}$	$3.322 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow t\bar{t}$	$-1.008 \cdot 10^{-5}$	$-1.008 \cdot 10^{-5}$	0	$4.739 \cdot 10^{-7}$	$4.739 \cdot 10^{-7}$	0
$b\bar{b} \rightarrow u\bar{u}$	$-2.779 \cdot 10^{-15}$	$-2.779 \cdot 10^{-15}$	0	$8.413 \cdot 10^{-17}$	$8.413 \cdot 10^{-17}$	0
$c\bar{c} \rightarrow \mu^+\mu^-$	$-2.045 \cdot 10^{-13}$	$-2.045 \cdot 10^{-13}$	0	$6.195 \cdot 10^{-15}$	$6.195 \cdot 10^{-15}$	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.189 \cdot 10^{-15}$	$-1.189 \cdot 10^{-15}$	0	$3.63 \cdot 10^{-17}$	$3.63 \cdot 10^{-17}$	0
$t\bar{t} \rightarrow \tau^+\tau^-$	$-1.004 \cdot 10^{-6}$	$-1.004 \cdot 10^{-6}$	0	$3.052 \cdot 10^{-8}$	$3.052 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow c\bar{c}$	$-3.068 \cdot 10^{-6}$	$-3.068 \cdot 10^{-6}$	0	$1.87 \cdot 10^{-7}$	$1.87 \cdot 10^{-7}$	0
$t\bar{t} \rightarrow d\bar{d}$	$-2.089 \cdot 10^{-11}$	$-2.089 \cdot 10^{-11}$	0	$6.323 \cdot 10^{-13}$	$6.323 \cdot 10^{-13}$	0
$t\bar{t} \rightarrow s\bar{s}$	$-8.264 \cdot 10^{-9}$	$-8.264 \cdot 10^{-9}$	0	$2.507 \cdot 10^{-10}$	$2.507 \cdot 10^{-10}$	0
$t\bar{t} \rightarrow t\bar{t}$	0.08992	0.08992	0	0.008728	0.008728	0
$u\bar{d} \rightarrow u\bar{d}$	$-2.036 \cdot 10^{-21}$	$-2.036 \cdot 10^{-21}$	0	$9.757 \cdot 10^{-23}$	$9.757 \cdot 10^{-23}$	0

$u\bar{u} \rightarrow c\bar{c}$	$-5.172 \cdot 10^{-16}$	$-5.172 \cdot 10^{-16}$	0	$3.107 \cdot 10^{-17}$	$3.107 \cdot 10^{-17}$	0
$u\bar{u} \rightarrow u\bar{u}$	$2.555 \cdot 10^{-11}$	$2.555 \cdot 10^{-11}$	0	$2.025 \cdot 10^{-22}$	$2.025 \cdot 10^{-22}$	0

## 2.55 cuWRe

	interference			square		
	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow W^+ \bar{t}b$	$-6.713 \cdot 10^{-5}$	$-6.713 \cdot 10^{-5}$	0	$1.427 \cdot 10^{-5}$	$1.427 \cdot 10^{-5}$	0
$HH \rightarrow W^- u\bar{d}$	$-4.375 \cdot 10^{-16}$	$-4.375 \cdot 10^{-16}$	0	$1.089 \cdot 10^{-16}$	$1.089 \cdot 10^{-16}$	0
$HH \rightarrow z c\bar{c}$	$-1.164 \cdot 10^{-10}$	$-1.164 \cdot 10^{-10}$	0	$5.207 \cdot 10^{-11}$	$5.207 \cdot 10^{-11}$	0
$HH \rightarrow z t\bar{t}$	$4.426 \cdot 10^{-6}$	$4.426 \cdot 10^{-6}$	0	$6.375 \cdot 10^{-5}$	$6.375 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma t\bar{b}$	$-6.348 \cdot 10^{-7}$	$-6.348 \cdot 10^{-7}$	0	$1.735 \cdot 10^{-6}$	$1.735 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	$-8.8 \cdot 10^{-17}$	$-8.8 \cdot 10^{-17}$	0	$9.04 \cdot 10^{-17}$	$9.04 \cdot 10^{-17}$	0
$HW^+ \rightarrow u\bar{d}$	$-7.671 \cdot 10^{-12}$	$-7.671 \cdot 10^{-12}$	0	$2.272 \cdot 10^{-10}$	$2.272 \cdot 10^{-10}$	0
$HW^- \rightarrow \bar{t}b$	-0.09066	-0.09066	0	0.5232	0.5232	0
$H\gamma \rightarrow c\bar{c}$	$3.902 \cdot 10^{-9}$	$3.902 \cdot 10^{-9}$	0	$3.975 \cdot 10^{-6}$	$3.975 \cdot 10^{-6}$	0
$H\gamma \rightarrow t\bar{t}$	0.4693	0.4693	0	0.3093	0.3093	0
$H z \rightarrow t\bar{t}$	0.2384	0.2384	0	0.8614	0.8614	0
$H z \rightarrow u\bar{u}$	$-4.467 \cdot 10^{-12}$	$-4.467 \cdot 10^{-12}$	0	$2.316 \cdot 10^{-10}$	$2.316 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H b\bar{b}$	$-1.157 \cdot 10^{-6}$	$-1.157 \cdot 10^{-6}$	0	$2.109 \cdot 10^{-6}$	$2.109 \cdot 10^{-6}$	0
$W^+ W^- \rightarrow H c\bar{c}$	$8.495 \cdot 10^{-11}$	$8.495 \cdot 10^{-11}$	0	$1.277 \cdot 10^{-10}$	$1.277 \cdot 10^{-10}$	0
$W^+ W^- \rightarrow H d\bar{d}$	$-5.042 \cdot 10^{-17}$	$-5.042 \cdot 10^{-17}$	0	$7.77 \cdot 10^{-26}$	$7.77 \cdot 10^{-26}$	0
$W^+ W^- \rightarrow H t\bar{t}$	$-1.187 \cdot 10^{-6}$	$-1.187 \cdot 10^{-6}$	0	$2.818 \cdot 10^{-5}$	$2.818 \cdot 10^{-5}$	0
$\bar{b}t \rightarrow \bar{d}u$	-0.005942	-0.005942	0	0.01192	0.01192	0
$b\bar{b} \rightarrow t\bar{t}$	0.3018	0.3018	0	0.3709	0.3709	0
$b\bar{b} \rightarrow u\bar{u}$	$-4.172 \cdot 10^{-13}$	$-4.172 \cdot 10^{-13}$	0	$9.679 \cdot 10^{-13}$	$9.679 \cdot 10^{-13}$	0
$b\bar{t} \rightarrow e^- \bar{\nu}_e$	-0.005057	-0.005057	0	0.001672	0.001672	0
$c\bar{c} \rightarrow \mu^+ \mu^-$	$-1.08 \cdot 10^{-7}$	$-1.08 \cdot 10^{-7}$	0	$1.137 \cdot 10^{-7}$	$1.137 \cdot 10^{-7}$	0
$c\bar{s} \rightarrow \tau^+ \nu_\tau$	$-1.251 \cdot 10^{-7}$	$-1.251 \cdot 10^{-7}$	0	$2.233 \cdot 10^{-7}$	$2.233 \cdot 10^{-7}$	0

$d\bar{d} \rightarrow c\bar{c}$	$-4.173 \cdot 10^{-7}$	$-4.173 \cdot 10^{-7}$	0	$3.604 \cdot 10^{-8}$	$3.604 \cdot 10^{-8}$	0
$t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$	-0.002179	-0.002179	0	0.00107	0.00107	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	-0.002249	-0.002249	0	0.002448	0.002448	0
$t\bar{t} \rightarrow c\bar{c}$	-0.003212	-0.003212	0	0.006122	0.006122	0
$t\bar{t} \rightarrow d\bar{d}$	-0.002597	-0.002597	0	0.007248	0.007248	0
$t\bar{t} \rightarrow s\bar{s}$	-0.004063	-0.004063	0	0.007418	0.007418	0
$t\bar{t} \rightarrow t\bar{t}$	0.1923	0.1923	0	0.176	0.176	0
$u\bar{d} \rightarrow \mu^+ \nu_\mu$	$-3.132 \cdot 10^{-13}$	$-3.132 \cdot 10^{-13}$	0	$6.138 \cdot 10^{-13}$	$6.138 \cdot 10^{-13}$	0
$u\bar{d} \rightarrow c\bar{s}$	$-3.331 \cdot 10^{-7}$	$-3.331 \cdot 10^{-7}$	0	$6.432 \cdot 10^{-7}$	$6.432 \cdot 10^{-7}$	0
$u\bar{d} \rightarrow u\bar{d}$	$-3.087 \cdot 10^{-13}$	$-3.087 \cdot 10^{-13}$	0	$3.068 \cdot 10^{-12}$	$3.068 \cdot 10^{-12}$	0
$u\bar{u} \rightarrow \nu_e \bar{\nu}_e$	$-2.958 \cdot 10^{-13}$	$-2.958 \cdot 10^{-13}$	0	$1.813 \cdot 10^{-13}$	$1.813 \cdot 10^{-13}$	0
$u\bar{u} \rightarrow c\bar{c}$	$-4.205 \cdot 10^{-7}$	$-4.205 \cdot 10^{-7}$	0	$1.192 \cdot 10^{-7}$	$1.192 \cdot 10^{-7}$	0
$u\bar{u} \rightarrow u\bar{u}$	$-1.511 \cdot 10^{-11}$	$-1.511 \cdot 10^{-11}$	0	$4.593 \cdot 10^{-12}$	$4.593 \cdot 10^{-12}$	0

## 2.56 cud1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$b\bar{b} \rightarrow t\bar{t}$	-0.008159	-0.008159	0	0.1357	0.1357	0
$b\bar{b} \rightarrow u\bar{u}$	-0.007264	-0.007264	0	0.1273	0.1273	0
$d\bar{d} \rightarrow c\bar{c}$	$-1.082 \cdot 10^{-5}$	$-1.082 \cdot 10^{-5}$	0	0.0001893	0.0001893	0
$t\bar{t} \rightarrow d\bar{d}$	-0.009416	-0.009416	0	0.1577	0.1577	0
$t\bar{t} \rightarrow s\bar{s}$	-0.01487	-0.01487	0	0.2532	0.2532	0
$u\bar{d} \rightarrow u\bar{d}$	0.007603	0.007603	0	0.09303	0.09303	0

## 2.57 cud8

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

$b\bar{b} \rightarrow t\bar{t}$	0.109	0.109	0	0.03015	0.03015	0
$b\bar{b} \rightarrow u\bar{u}$	0.08384	0.08384	0	0.02829	0.02829	0
$d\bar{d} \rightarrow c\bar{c}$	0.0001257	0.0001257	0	$4.206 \cdot 10^{-5}$	$4.206 \cdot 10^{-5}$	0
$t\bar{t} \rightarrow d\bar{d}$	0.1235	0.1235	0	0.03504	0.03504	0
$t\bar{t} \rightarrow s\bar{s}$	0.1864	0.1864	0	0.05627	0.05627	0
$u\bar{d} \rightarrow u\bar{d}$	-0.08814	-0.08814	0	0.02067	0.02067	0

## 2.58 cuu

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow c\bar{c}$	0.01991	0.01991	0	0.3198	0.3198	0
$t\bar{t} \rightarrow t\bar{t}$	-2.216	-2.216	0	11.65	11.65	0
$u\bar{u} \rightarrow c\bar{c}$	0.1865	0.1865	0	3.268	3.268	0
$u\bar{u} \rightarrow u\bar{u}$	-0.03741	-0.03741	0	0.4954	0.4954	0

## 2.59 cuu1

	interference			square		
	mod1	mod2	$1 - \text{mod2}/\text{mod1}$	mod1	mod2	$1 - \text{mod2}/\text{mod1}$
$t\bar{t} \rightarrow c\bar{c}$	0.2958	0.2958	0	0.3198	0.3198	0
$t\bar{t} \rightarrow t\bar{t}$	-2.216	-2.216	0	11.65	11.65	0
$u\bar{u} \rightarrow c\bar{c}$	2.214	2.214	0	3.268	3.268	0
$u\bar{u} \rightarrow u\bar{u}$	-0.03741	-0.03741	0	0.4954	0.4954	0

## 2.60 sm

interference                      square

	mod1	mod2	1 - mod2/mod1	mod1	mod2	1 - mod2/mod1
$HH \rightarrow HH$	0	0	0	0.1609	0.1609	0
$HH \rightarrow HHH$	0	0	0	$1.318 \cdot 10^{-7}$	$1.318 \cdot 10^{-7}$	0
$HH \rightarrow H\tau^+\tau^-$	0	0	0	$9.405 \cdot 10^{-11}$	$9.405 \cdot 10^{-11}$	0
$HH \rightarrow Hb\bar{b}$	0	0	0	$3.615 \cdot 10^{-10}$	$3.615 \cdot 10^{-10}$	0
$HH \rightarrow Hs\bar{s}$	0	0	0	$3.801 \cdot 10^{-13}$	$3.801 \cdot 10^{-13}$	0
$HH \rightarrow Ht\bar{t}$	0	0	0	$7.214 \cdot 10^{-5}$	$7.214 \cdot 10^{-5}$	0
$HH \rightarrow Hu\bar{u}$	0	0	0	$8.587 \cdot 10^{-17}$	$8.587 \cdot 10^{-17}$	0
$HH \rightarrow Hzz$	0	0	0	0.000109	0.000109	0
$HH \rightarrow W^+W^-$	0	0	0	437.4	437.4	0
$HH \rightarrow W^+W^-\gamma$	0	0	0	$4.447 \cdot 10^{-7}$	$4.447 \cdot 10^{-7}$	0
$HH \rightarrow W^+\bar{t}b$	0	0	0	$9.67 \cdot 10^{-6}$	$9.67 \cdot 10^{-6}$	0
$HH \rightarrow W^+e^-\bar{\nu}_e$	0	0	0	$9.32 \cdot 10^{-8}$	$9.32 \cdot 10^{-8}$	0
$HH \rightarrow W^-u\bar{d}$	0	0	0	$9.669 \cdot 10^{-7}$	$9.669 \cdot 10^{-7}$	0
$HH \rightarrow z\bar{b}b$	0	0	0	$3.249 \cdot 10^{-7}$	$3.249 \cdot 10^{-7}$	0
$HH \rightarrow z\nu_e\bar{\nu}_e$	0	0	0	$1.797 \cdot 10^{-7}$	$1.797 \cdot 10^{-7}$	0
$HH \rightarrow zcc$	0	0	0	$5.927 \cdot 10^{-6}$	$5.927 \cdot 10^{-6}$	0
$HH \rightarrow zdd$	0	0	0	$1.001 \cdot 10^{-6}$	$1.001 \cdot 10^{-6}$	0
$HH \rightarrow ze^+e^-$	0	0	0	$4.003 \cdot 10^{-8}$	$4.003 \cdot 10^{-8}$	0
$HH \rightarrow zt\bar{t}$	0	0	0	0.0001369	0.0001369	0
$HH \rightarrow zz$	0	0	0	0.07598	0.07598	0
$HW^+ \rightarrow \gamma t\bar{b}$	0	0	0	$3.193 \cdot 10^{-5}$	$3.193 \cdot 10^{-5}$	0
$HW^+ \rightarrow \gamma u\bar{d}$	0	0	0	$6.289 \cdot 10^{-8}$	$6.289 \cdot 10^{-8}$	0
$HW^+ \rightarrow u\bar{d}$	0	0	0	0.02002	0.02002	0
$HW^- \rightarrow \bar{t}b$	0	0	0	0.2225	0.2225	0
$HW^- \rightarrow \gamma e^-\bar{\nu}_e$	0	0	0	$1.258 \cdot 10^{-8}$	$1.258 \cdot 10^{-8}$	0
$HW^- \rightarrow \mu^-\bar{\nu}_\mu$	0	0	0	0.0005978	0.0005978	0
$H\gamma \rightarrow b\bar{b}$	0	0	0	$9.124 \cdot 10^{-5}$	$9.124 \cdot 10^{-5}$	0
$H\gamma \rightarrow c\bar{c}$	0	0	0	$8.083 \cdot 10^{-5}$	$8.083 \cdot 10^{-5}$	0



$H\gamma \rightarrow d\bar{d}$	0	0	0	$3.071 \cdot 10^{-10}$	$3.071 \cdot 10^{-10}$	0
$H\gamma \rightarrow e^+e^-$	0	0	0	$1.092 \cdot 10^{-11}$	$1.092 \cdot 10^{-11}$	0
$H\gamma \rightarrow t\bar{t}$	0	0	0	0.4393	0.4393	0
$H z \rightarrow \mu^+\mu^-$	0	0	0	0.0006726	0.0006726	0
$H z \rightarrow \nu_\tau\bar{\nu}_\tau$	0	0	0	0.005642	0.005642	0
$H z \rightarrow b\bar{b}$	0	0	0	0.01437	0.01437	0
$H z \rightarrow s\bar{s}$	0	0	0	0.0135	0.0135	0
$H z \rightarrow t\bar{t}$	0	0	0	5.024	5.024	0
$H z \rightarrow u\bar{u}$	0	0	0	0.005457	0.005457	0
$W^+W^- \rightarrow Hb\bar{b}$	0	0	0	$1.386 \cdot 10^{-5}$	$1.386 \cdot 10^{-5}$	0
$W^+W^- \rightarrow Hc\bar{c}$	0	0	0	$7.052 \cdot 10^{-7}$	$7.052 \cdot 10^{-7}$	0
$W^+W^- \rightarrow H d\bar{d}$	0	0	0	$5.247 \cdot 10^{-7}$	$5.247 \cdot 10^{-7}$	0
$W^+W^- \rightarrow H t\bar{t}$	0	0	0	0.0002471	0.0002471	0
$W^+W^- \rightarrow W^+W^-$	0	0	0	24.37	24.37	0
$W^+W^- \rightarrow \gamma\gamma$	0	0	0	2.914	2.914	0
$W^+W^- \rightarrow \gamma\gamma\gamma$	0	0	0	$3.507 \cdot 10^{-7}$	$3.507 \cdot 10^{-7}$	0
$\bar{b}t \rightarrow \bar{d}u$	0	0	0	0.04096	0.04096	0
$\gamma W^+ \rightarrow zW^+$	0	0	0	0.2467	0.2467	0
$\mu^+\mu^- \rightarrow \tau^+\tau^-$	0	0	0	0.007899	0.007899	0
$\nu_\tau\bar{\nu}_\tau \rightarrow \nu_\tau\bar{\nu}_\tau$	0	0	0	0.001516	0.001516	0
$\nu_e\bar{\nu}_e \rightarrow \nu_\mu\bar{\nu}_\mu$	0	0	0	0.000482	0.000482	0
$b\bar{b} \rightarrow \gamma\gamma$	0	0	0	0.0001973	0.0001973	0
$b\bar{b} \rightarrow \mu^+\mu^-$	0	0	0	0.0008151	0.0008151	0
$b\bar{b} \rightarrow \nu_e\bar{\nu}_e$	0	0	0	0.0009709	0.0009709	0
$b\bar{b} \rightarrow b\bar{b}$	0	0	0	15.15	15.15	0
$b\bar{b} \rightarrow d\bar{d}$	0	0	0	0.6859	0.6859	0
$b\bar{b} \rightarrow t\bar{t}$	0	0	0	0.3451	0.3451	0
$b\bar{b} \rightarrow u\bar{u}$	0	0	0	0.5294	0.5294	0
$b\bar{t} \rightarrow e^-\bar{\nu}_e$	0	0	0	$7.908 \cdot 10^{-5}$	$7.908 \cdot 10^{-5}$	0

$c\bar{c} \rightarrow \mu^+\mu^-$	0	0	0	0.002003	0.002003	0
$c\bar{s} \rightarrow \tau^+\nu_\tau$	0	0	0	0.006629	0.006629	0
$d\bar{d} \rightarrow c\bar{c}$	0	0	0	0.9494	0.9494	0
$d\bar{d} \rightarrow e^+e^-$	0	0	0	0.002557	0.002557	0
$d\bar{d} \rightarrow s\bar{s}$	0	0	0	0.8597	0.8597	0
$e^+\nu_\mu \rightarrow e^+\nu_\mu$	0	0	0	0.02434	0.02434	0
$e^+\nu_e \rightarrow \mu^+\nu_\mu$	0	0	0	0.04388	0.04388	0
$e^+\nu_e \rightarrow e^+\nu_e$	0	0	0	0.1965	0.1965	0
$e^+\tau^- \rightarrow e^+\tau^-$	0	0	0	0.03479	0.03479	0
$e^+e^- \rightarrow \mu^+\mu^-$	0	0	0	0.02739	0.02739	0
$e^+e^- \rightarrow e^+e^-$	0	0	0	11.02	11.02	0
$gg \rightarrow gg$	0	0	0	97.65	97.65	0
$gg \rightarrow ggg$	0	0	0	0.009542	0.009542	0
$gg \rightarrow t\bar{t}$	0	0	0	0.8249	0.8249	0
$gg \rightarrow u\bar{u}$	0	0	0	0.5886	0.5886	0
$s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$	0	0	0	0.003643	0.003643	0
$s\bar{s} \rightarrow s\bar{s}$	0	0	0	108	108	0
$t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$	0	0	0	0.001272	0.001272	0
$t\bar{t} \rightarrow \tau^+\tau^-$	0	0	0	0.005001	0.005001	0
$t\bar{t} \rightarrow c\bar{c}$	0	0	0	0.596	0.596	0
$t\bar{t} \rightarrow d\bar{d}$	0	0	0	0.6045	0.6045	0
$t\bar{t} \rightarrow s\bar{s}$	0	0	0	0.5787	0.5787	0
$t\bar{t} \rightarrow t\bar{t}$	0	0	0	10.71	10.71	0
$u\bar{d} \rightarrow \mu^+\nu_\mu$	0	0	0	0.000743	0.000743	0
$u\bar{d} \rightarrow c\bar{s}$	0	0	0	0.008285	0.008285	0
$u\bar{d} \rightarrow u\bar{d}$	0	0	0	2.179	2.179	0
$u\bar{u} \rightarrow \nu_e\bar{\nu}_e$	0	0	0	0.002386	0.002386	0
$u\bar{u} \rightarrow c\bar{c}$	0	0	0	0.4926	0.4926	0
$u\bar{u} \rightarrow u\bar{u}$	0	0	0	15.29	15.29	0

$zz \rightarrow W^+W^-$	0	0	0	41.23	41.23	0
$zz \rightarrow zz$	0	0	0	0.07987	0.07987	0