1 By process

$\textbf{1.1} \quad HH \rightarrow HH$

			interference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
cdp	0.453	0.453	0	0.2358	0.2358	0		
sm	0	0	0	0.2176	0.2176	0		

$\textbf{1.2} \quad HH \rightarrow HHH$

		interfer	ence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	$-3.401 \cdot 10^{-6}$	$-3.401 \cdot 10^{-6}$	0	$4.311 \cdot 10^{-6}$	$4.311 \cdot 10^{-6}$	0	
sm	0	0	0	$6.706 \cdot 10^{-7}$	$6.706 \cdot 10^{-7}$	0	

1.3 $HH \rightarrow Ht\bar{t}$

		interfer	ence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
cdp	$-3.386 \cdot 10^{-5}$	$-3.386 \cdot 10^{-5}$	0	$1.442 \cdot 10^{-5}$	$1.442 \cdot 10^{-5}$	0	
sm	0	0	0	$2.04 \cdot 10^{-5}$	$2.04 \cdot 10^{-5}$	0	

1.4 $HH \rightarrow Hzz$

	interference			square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1
cdp	$-3.281 \cdot 10^{-6}$	$-3.281 \cdot 10^{-6}$	0	$2.036 \cdot 10^{-6}$	$2.036 \cdot 10^{-6}$	0

sm $0 0 0 6.086 \cdot 10^{-6} 6.086 \cdot 10^{-6}$

1.5 $HH \rightarrow W^+W^-$

		interior	erference		square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
cdp	-0.05857	-0.05857	0	4.015	4.015	0	
sm	0	0	0	0.08983	0.08983	0	

1.6 $HH \rightarrow W^+W^-\gamma$

		inter	ference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
cdp	-0.000307	-0.000307	0	0.0001582	0.0001582	0		
sm	0	0	0	0.0001726	0.0001726	0		

1.7 $HH \rightarrow W^+ \bar{t}b$

		interfer	rence	square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$
c3pQ3	$-8.628 \cdot 10^{-6}$	$-8.628 \cdot 10^{-6}$	0	$4.214 \cdot 10^{-5}$	$4.214 \cdot 10^{-5}$	0
cdp	$-7.757 \cdot 10^{-6}$	$-7.757 \cdot 10^{-6}$	0	$2.07 \cdot 10^{-5}$	$2.07 \cdot 10^{-5}$	0
ctW	$-1.068 \cdot 10^{-5}$	$-1.068 \cdot 10^{-5}$	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0
sm	0	0	0	$1.087 \cdot 10^{-5}$	$1.087 \cdot 10^{-5}$	0

1.8 $HH \rightarrow W^+ e^- \bar{\nu}_e$

	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$
cdp	$1.42 \cdot 10^{-9}$	$1.42 \cdot 10^{-9}$	0	$2.133 \cdot 10^{-8}$	$2.133 \cdot 10^{-8}$	0
sm	0	0	0	$1.445 \cdot 10^{-7}$	$1.445 \cdot 10^{-7}$	0

1.9 $HH \rightarrow W^- u \bar{d}$

	interference			square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	$\verb mod1 \qquad \verb mod2 \qquad 1-\verb mod2/mod1 $			
cdp	$5.795 \cdot 10^{-8}$	$5.795 \cdot 10^{-8}$	0	$7.165 \cdot 10^{-8} 7.165 \cdot 10^{-8} \qquad 0$			
sm	0	0	0	$2.866 \cdot 10^{-7}$ $2.866 \cdot 10^{-7}$ 0			

1.10 $HH \rightarrow z\bar{b}b$

		interfer	rence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$1.418 \cdot 10^{-6}$	$1.418 \cdot 10^{-6}$	0	$2.275 \cdot 10^{-7}$	$2.275 \cdot 10^{-7}$	0	
cdp	$-4.294 \cdot 10^{-6}$	$-4.294 \cdot 10^{-6}$	0	$7.909 \cdot 10^{-6}$	$7.909 \cdot 10^{-6}$	0	
sm	0	0	0	$2.285 \cdot 10^{-6}$	$2.285 \cdot 10^{-6}$	0	

1.11 $HH \rightarrow z\nu_e\bar{\nu}_e$

		inte	erference	square			
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	-0.02912	-0.02912	0	0.0144	0.0144	0	
sm	0	0	0	0.01538	0.01538	0	

1.12 $HH \rightarrow zc\bar{c}$

	interterence			square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	$7.587 \cdot 10^{-9}$	$7.587 \cdot 10^{-9}$	0	$2.665 \cdot 10^{-8}$	$2.665 \cdot 10^{-8}$	0	
sm	0	0	0	$6.035 \cdot 10^{-8}$	$6.035 \cdot 10^{-8}$	0	

1.13 $HH \rightarrow zd\bar{d}$

		interf	erence		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1		
cdp	$1.194 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	0	$9.483 \cdot 10^{-9}$	$9.483 \cdot 10^{-9}$	0		
sm	0	0	0	$7.249 \cdot 10^{-7}$	$7.249 \cdot 10^{-7}$	0		

1.14 $HH \rightarrow ze^+e^-$

	interference				square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
cdp	$5.719 \cdot 10^{-9}$	$5.719 \cdot 10^{-9}$	0	$1.026 \cdot 10^{-8}$ $1.026 \cdot 10^{-8}$	$26 \cdot 10^{-8}$	0		
sm	0	0	0	$9.441 \cdot 10^{-8}$ 9.44	$41 \cdot 10^{-8}$	0		

1.15 $HH \rightarrow zt\bar{t}$

		interfer	rence	square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$
c3pQ3	$-9.046 \cdot 10^{-5}$	$-9.046 \cdot 10^{-5}$	0	$5.723 \cdot 10^{-5}$	$5.723 \cdot 10^{-5}$	0
cdp	$7.449 \cdot 10^{-5}$	$7.449 \cdot 10^{-5}$	0	$3.011 \cdot 10^{-5}$	$3.011 \cdot 10^{-5}$	0
ctW	$4.308 \cdot 10^{-6}$	$4.308 \cdot 10^{-6}$	0	$2.588 \cdot 10^{-5}$	$2.588 \cdot 10^{-5}$	0
sm	0	0	0	0.0001392	0.0001392	0

1.16 $HH \rightarrow zz$

		i	nterference		square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
cdp	-0.122	-0.122	0	1.981	1.981	0	
sm	0	0	0	0.07796	0.07796	0	

1.17 $HW^+ \rightarrow \gamma t \bar{b}$

		interfer	ence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$-3.199 \cdot 10^{-6}$	$-3.199 \cdot 10^{-6}$	0	$1.256 \cdot 10^{-6}$	$1.256 \cdot 10^{-6}$	0	
cdp	$7.338 \cdot 10^{-7}$	$7.338 \cdot 10^{-7}$	0	$2.224 \cdot 10^{-8}$	$2.224 \cdot 10^{-8}$	0	
ctW	$1.309 \cdot 10^{-6}$	$1.309 \cdot 10^{-6}$	0	$8.538 \cdot 10^{-6}$	$8.538 \cdot 10^{-6}$	0	
\mathtt{sm}	0	0	0	$6.052 \cdot 10^{-6}$	$6.052 \cdot 10^{-6}$	0	

1.18 $HW^+ \rightarrow \gamma u \bar{d}$

		interf	erence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-{\tt mod2/mod1}$	
cdp	$2.271 \cdot 10^{-9}$	$2.271 \cdot 10^{-9}$	0	$6.885 \cdot 10^{-11}$	$6.885 \cdot 10^{-11}$	0	
sm	0	0	0	$1.873 \cdot 10^{-8}$	$1.873 \cdot 10^{-8}$	0	

1.19 $HW^+ \rightarrow u\bar{d}$

		int	erference	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	0.002726	0.002726	0	$8.262 \cdot 10^{-5}$	$8.262 \cdot 10^{-5}$	0	
sm	0	0	0	0.02248	0.02248	0	

1.20 $HW^- \rightarrow \bar{t}b$

		in	terference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1		
c3pQ3	-1.275	-1.275	0	1.925	1.925	0		
cdp	0.04747	0.04747	0	0.001439	0.001439	0		
ctW	-0.2682	-0.2682	0	2.274	2.274	0		
sm	0	0	0	0.3915	0.3915	0		

1.21 $HW^- \rightarrow \gamma e^- \bar{\nu}_e$

		interf	erence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
cdp	$3.209 \cdot 10^{-9}$	$3.209 \cdot 10^{-9}$	0	$9.728 \cdot 10^{-11}$	$9.728 \cdot 10^{-11}$	0	
sm	0	0	0	$2.647 \cdot 10^{-8}$	$2.647 \cdot 10^{-8}$	0	

1.22 $HW^- \rightarrow \mu^- \bar{\nu}_{\mu}$

		ir	nterference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
cdp	0.00079	0.00079	0	$2.395 \cdot 10^{-5}$	$2.395 \cdot 10^{-5}$	0		
sm	0	0	0	0.006515	0.006515	0		

1.23 $H\gamma \rightarrow t\bar{t}$

ctW	-0.1749	-0.1749	0	0.7105	0.7105	0
sm	0	0	0	0.5026	0.5026	0

1.24 $Hz \to \mu^+ \mu^-$

	interference			square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	0.0003878	0.0003878	0	$1.175 \cdot 10^{-5}$	$1.175 \cdot 10^{-5}$	0	
sm	0	0	0	0.003198	0.003198	0	

1.25 $Hz \rightarrow \nu_{\tau} \bar{\nu}_{\tau}$

		inte	rference	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
cdp	0.0007285	0.0007285	0	$2.208 \cdot 10^{-5}$	$2.208 \cdot 10^{-5}$	0	
sm	0	0	0	0.006008	0.006008	0	

1.26 $Hz \rightarrow b\bar{b}$

		inte	rference	square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	$\verb mod1 & \verb mod2 & 1-\verb mod2/mod1 $		
c3pQ3	0.04519	0.04519	0	$0.1994 \qquad 0.1994 \qquad 0$		
cdp	0.0003211	0.0003211	0	$9.734 \cdot 10^{-6} 9.734 \cdot 10^{-6} 0$		
\mathtt{sm}	0	0	0	$0.002648 \qquad 0.002648 \qquad 0$		

1.27 $Hz \rightarrow s\bar{s}$

	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$
cdp	0.001547	0.001547	0	$4.689 \cdot 10^{-5}$	$4.689 \cdot 10^{-5}$	0
sm	0	0	0	0.01276	0.01276	0

1.28 $Hz \rightarrow t\bar{t}$

	interference			square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-{\tt mod2/mod1}$	
c3pQ3	-2.071	-2.071	0	1.451	1.451	0	
cdp	0.2199	0.2199	0	0.006665	0.006665	0	
ctW	-0.03366	-0.03366	0	2.847	2.847	0	
sm	0	0	0	1.813	1.813	0	

1.29 $Hz \rightarrow u\bar{u}$

		ir	nterference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
cdp	0.00017	0.00017	0	$5.154 \cdot 10^{-6}$	$5.154 \cdot 10^{-6}$	0		
sm	0	0	0	0.001402	0.001402	0		

1.30 $W^+W^- \rightarrow Hb\bar{b}$

		interfer	rence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$-4.334 \cdot 10^{-6}$	$-4.334 \cdot 10^{-6}$	0	$3.123 \cdot 10^{-6}$	$3.123 \cdot 10^{-6}$	0	
cdp	$5.899 \cdot 10^{-7}$	$5.899 \cdot 10^{-7}$	0	$1.788 \cdot 10^{-8}$	$1.788 \cdot 10^{-8}$	0	
ctW	$3.259 \cdot 10^{-6}$	$3.259 \cdot 10^{-6}$	0	$8.764 \cdot 10^{-6}$	$8.764 \cdot 10^{-6}$	0	
\mathtt{sm}	0	0	0	$4.866 \cdot 10^{-6}$	$4.866 \cdot 10^{-6}$	0	

1.31 $W^+W^- \rightarrow Hc\bar{c}$

		interf	erence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	$\mathtt{mod1} \hspace{1cm} \mathtt{mod2} \hspace{1cm} 1-\mathtt{mod2}/\mathtt{mod1}$			
cdp	$2.714 \cdot 10^{-6}$	$2.714 \cdot 10^{-6}$	0	$8.226 \cdot 10^{-8} 8.226 \cdot 10^{-8} 0$			
sm	0	0	0	$2.238 \cdot 10^{-5}$ $2.238 \cdot 10^{-5}$ 0			

1.32 $W^+W^- \rightarrow Hd\bar{d}$

		interf	erence	square		
	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	$\verb mod1 & \verb mod2 & 1-\verb mod2/mod1 $		
cdp	$4.353 \cdot 10^{-5}$	$4.353 \cdot 10^{-5}$	0	$1.319 \cdot 10^{-6}$ $1.319 \cdot 10^{-6}$ 0		
sm	0	0	0	$0.000359 \qquad 0.000359 \qquad 0$		

1.33 $W^+W^- \rightarrow Ht\bar{t}$

		interfer	ence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$5.428 \cdot 10^{-5}$	$5.428 \cdot 10^{-5}$	0	$2.369 \cdot 10^{-5}$	$2.369 \cdot 10^{-5}$	0	
cdp	$1.03 \cdot 10^{-5}$	$1.03\cdot 10^{-5}$	0	$1.07\cdot 10^{-5}$	$1.07\cdot 10^{-5}$	0	
ctW	$-3.606 \cdot 10^{-6}$	$-3.606 \cdot 10^{-6}$	0	$5.456 \cdot 10^{-5}$	$5.456 \cdot 10^{-5}$	0	
sm	0	0	0	$9.632 \cdot 10^{-5}$	$9.632 \cdot 10^{-5}$	0	

1.34 $W^+W^- \to W^+W^-$

		nnte	erierence	square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-{\tt mod2/mod1}$
cdp	-0.04625	-0.04625	0	0.01613	0.01613	0
sm	0	0	0	4.768	4.768	0

1.35 $W^+W^- \rightarrow \gamma \gamma$

1.36 $W^+W^- \rightarrow \gamma\gamma\gamma$

1.37 $\bar{b}t \rightarrow \bar{d}u$

interference square mod1mod21 - mod2/mod1mod1 mod2 1 - mod2/mod1 $6.766 \cdot 10^{-5} \quad 6.766 \cdot 10^{-5}$ $2.051 \cdot 10^{-6}$ $2.051 \cdot 10^{-6}$ c3pQ3 ctW 0.0016390.0016390.0046260.0046260 0.0005580.0005580 sm

1.38 $\gamma W^+ \rightarrow z W^+$

1.39 $\mu^{+}\mu^{-} \rightarrow \tau^{+}\tau^{-}$

interference square mod1 $\verb|mod1| \verb|mod2| 1 - \verb|mod2| mod1|$ mod2 1 - mod2/mod10 0 $0.00684 \quad 0.00684$ sm1.40 $\nu_{\tau}\bar{\nu}_{\tau} \rightarrow \nu_{\tau}\bar{\nu}_{\tau}$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod1 mod2 1 - mod2/mod1 $3.181 \cdot 10^{-6}$ $3.181 \cdot 10^{-6}$ 0 0 0 sm1.41 $\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ 1 - mod2/mod1mod1mod2 0 0 0.007679 0.007679 0 sm1.42 $b\bar{b} \rightarrow \gamma \gamma$ interference square $\verb|mod1| \verb|mod2| 1 - \verb|mod2| \verb|mod1|$ mod2 1 - mod2/mod1mod10 0 0 $0.0001017 \quad 0.0001017$ sm**1.43** $b\bar{b} \to \mu^{+}\mu^{-}$ interference square 1 - mod2/mod1mod21 - mod2/mod1mod2mod1mod1 $3.633 \cdot 10^{-6}$ $3.633 \cdot 10^{-6}$ $0.0001386 \quad 0.0001386$ 0 c3pQ3 0 0 0.0017320.001732sm

1.44 $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$

		interf	erence	square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$
c3pQ3	$5.127 \cdot 10^{-5}$	$5.127 \cdot 10^{-5}$	0	$1.841 \cdot 10^{-6}$	$1.841 \cdot 10^{-6}$	0
sm	0	0	0	0.0004371	0.0004371	0

1.45 $b\bar{b} \rightarrow b\bar{b}$

		interf	erence		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
c3pQ3	$3.995 \cdot 10^{-5}$	$3.995 \cdot 10^{-5}$	0	$6.986 \cdot 10^{-6}$	$6.986 \cdot 10^{-6}$	0		
cQd1	0.001497	0.001497	0	3.874	3.874	0		
sm	0	0	0	1.957	1.957	0		

1.46 $b\bar{b} \rightarrow d\bar{d}$

		inter	ference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
c3pQ3	0.0003411	0.0003411	0	$1.134 \cdot 10^{-5}$	$1.134 \cdot 10^{-5}$	0		
cQd1	-0.004158	-0.004158	0	0.2858	0.2858	0		
cQq81	0.2852	0.2852	0	0.1925	0.1925	0		
sm	0	0	0	0.4928	0.4928	0		

1.47 $b\bar{b} \rightarrow t\bar{t}$

c3pQ3	0.07318	0.07318	0	0.01053	0.01053	0
cQd1	-0.002867	-0.002867	0	0.08411	0.08411	0
cQt8	-0.08282	-0.08282	0	0.01869	0.01869	0
ctW	-0.1343	-0.1343	0	0.2216	0.2216	0
ctd1	-0.02917	-0.02917	0	0.5037	0.5037	0
ctd8	0.3511	0.3511	0	0.1119	0.1119	0
sm	0	0	0	0.5188	0.5188	0

1.48 $b\bar{b} \rightarrow u\bar{u}$

		inte	rference	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	0.0005932	0.0005932	0	$1.716 \cdot 10^{-5}$	$1.716 \cdot 10^{-5}$	0	
cQq81	0.6547	0.6547	0	0.4419	0.4419	0	
cQu1	0.002531	0.002531	0	0.08699	0.08699	0	
sm	0	0	0	0.5755	0.5755	0	

1.49 $b\bar{t} \rightarrow e^-\bar{\nu}_e$

		inte	rference		square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	0.0001125	0.0001125	0	$3.409 \cdot 10^{-6}$	$3.409 \cdot 10^{-6}$	0	
ctW	0.001314	0.001314	0	0.003153	0.003153	0	
\mathtt{sm}	0	0	0	0.0009276	0.0009276	0	

$1.50 \quad c\bar{c} \to \mu^+ \mu^-$

 $mod1 \quad mod2 \quad 1 - mod2/mod1$ 1 - mod2/mod1mod1mod2 0 0 0.002079 0.002079 0 0 sm1.51 $c\bar{s} \rightarrow \tau^+ \nu_{\tau}$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod1mod2 1 - mod2/mod10 0 $0.0002101 \quad 0.0002101$ sm1.52 $d\bar{d} \rightarrow c\bar{c}$ interference square $mod2 \quad 1 - mod2/mod1$ $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod10 0 0 0.9083 0.9083 sm**1.53** $d\bar{d} \to e^+e^$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod2 1 - mod2/mod1mod10 0 0 $0.0002884 \quad 0.0002884$ sm**1.54** $e^+\nu_{\mu} \to e^+\nu_{\mu}$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod1mod2 1 - mod2/mod10 0

 $0.01434 \quad 0.01434$

0

0

sm

1.55
$$e^+\nu_e \to \mu^+\nu_\mu$$

1.56
$$e^+\nu_e \to e^+\nu_e$$

1.57
$$e^+\tau^- \to e^+\tau^-$$

1.58
$$e^+e^- \to \mu^+\mu^-$$

1.59
$$e^+e^- \rightarrow e^+e^-$$

0 0 0 7.944 7.944 sm**1.60** $gg \rightarrow gg$ interference square $\verb|mod1| \verb|mod2| 1 - \verb|mod2| mod1|$ $mod1 \quad mod2 \quad 1 - mod2/mod1$ 0 0 0 43.62 43.62 sm**1.61** $gg \rightarrow ggg$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ $mod2 \quad 1 - mod2/mod1$ mod10 0 0 $0.4772 \quad 0.4772$ 0 sm**1.62** $gg \rightarrow t\bar{t}$ interference square $\verb|mod1| \verb|mod2| 1 - \verb|mod2| \verb|mod1|$ $mod2 \quad 1 - mod2/mod1$ mod10 0 0 0.9189 0.9189 sm**1.63** $gg \rightarrow u\bar{u}$ interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod1 $mod2 \quad 1 - mod2/mod1$

0

1.64 $s\bar{s} \rightarrow \nu_{\tau}\bar{\nu}_{\tau}$

sm

0

0

 $0.3671 \quad 0.3671$

0

1.65 $s\bar{s} \rightarrow s\bar{s}$

1.66 $t\bar{t} \rightarrow \nu_{\mu}\bar{\nu}_{\mu}$

		interfer	ence	square			
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$4.23 \cdot 10^{-5}$	$4.23 \cdot 10^{-5}$	0	$2.177 \cdot 10^{-6}$	$2.177 \cdot 10^{-6}$	0	
ctW	$-5.799 \cdot 10^{-5}$	$-5.799 \cdot 10^{-5}$	0	0.002164	0.002164	0	
sm	0	0	0	0.000525	0.000525	0	

1.67 $t\bar{t} \rightarrow \tau^+\tau^-$

		interfer	ence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$-2.884 \cdot 10^{-5}$	$-2.884 \cdot 10^{-5}$	0	$3.843 \cdot 10^{-6}$	$3.843 \cdot 10^{-6}$	0	
ctW	0.001502	0.001502	0	0.001626	0.001626	0	
sm	0	0	0	0.0009141	0.0009141	0	

1.68 $t\bar{t} \rightarrow c\bar{c}$

		inte	erference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
c3pQ3	0.0001031	0.0001031	0	$7.046 \cdot 10^{-6}$	$7.046 \cdot 10^{-6}$	0		
cQq81	0.1877	0.1877	0	0.1004	0.1004	0		
cQu1	0.01685	0.01685	0	0.481	0.481	0		
ctW	0.003619	0.003619	0	0.006772	0.006772	0		
ctq1	0.01993	0.01993	0	0.481	0.481	0		
sm	0	0	0	0.6392	0.6392	0		

1.69 $t\bar{t} \rightarrow d\bar{d}$

		interf	erence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	
c3pQ3	$7.795 \cdot 10^{-6}$	$7.795 \cdot 10^{-6}$	0	$2.388 \cdot 10^{-6}$	$2.388 \cdot 10^{-6}$	0	
cQd1	-0.01264	-0.01264	0	0.7826	0.7826	0	
cQq81	0.06663	0.06663	0	0.01868	0.01868	0	
ctW	0.0001512	0.0001512	0	0.00408	0.00408	0	
ctd1	-0.001614	-0.001614	0	0.02101	0.02101	0	
ctd8	0.03332	0.03332	0	0.00467	0.00467	0	
ctq1	0.01672	0.01672	0	0.7826	0.7826	0	
sm	0	0	0	0.842	0.842	0	

1.70 $t\bar{t} \rightarrow s\bar{s}$

		interf	erence		square		
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-{\tt mod2/mod1}$	
c3pQ3	$6.032 \cdot 10^{-5}$	$6.032 \cdot 10^{-5}$	0	$3.852 \cdot 10^{-6}$	$3.852 \cdot 10^{-6}$	0	
cQd1	-0.01052	-0.01052	0	0.6308	0.6308	0	
cQq81	0.1119	0.1119	0	0.04924	0.04924	0	

ctW	0.0009766	0.0009766	0	0.005597	0.005597	0
ctd1	-0.003577	-0.003577	0	0.05539	0.05539	0
ctd8	0.05596	0.05596	0	0.01231	0.01231	0
ctq1	0.01231	0.01231	0	0.6308	0.6308	0
sm	0	0	0	0.7279	0.7279	0

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

		in	terference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$		
c3pQ3	-0.2346	-0.2346	0	0.009782	0.009782	0		
cQt8	-7.582	-7.582	0	1.679	1.679	0		
cdp	-0.1826	-0.1826	0	0.009072	0.009072	0		
ctW	-0.5141	-0.5141	0	0.3187	0.3187	0		
sm	0	0	0	17.47	17.47	0		

1.72 $u\bar{d} \rightarrow \mu^+ \nu_{\mu}$

		interference			square			
	mod1	mod2	$1 - \mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
sm	0	0	0	0.01448	0.01448	0		

1.73 $u\bar{d} \rightarrow c\bar{s}$

			interference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1		
\mathtt{sm}	0	0	0	0.006627	0.006627	0		

1.74 $u\bar{d} \rightarrow u\bar{d}$

1.75 $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$

1.76 $u\bar{u} \rightarrow u\bar{u}$

1.77 $zz \to W^+W^-$

interference square $mod1 \quad mod2 \quad 1 - mod2/mod1$ mod1 $mod2 \quad 1 - mod2/mod1$ 7.132 7.132 0.44730.4473cdp 0 0 0 0 0 107.2 107.2 0 sm

1.78 $zz \rightarrow zz$

	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1
cdp	0.01965	0.01965	0	0.001192	0.001192	0
sm	0	0	0	0.08105	0.08105	0

2 By parameter point

2.1 c3pQ3

		interfer	ence		square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
$HH \to W^+ \bar{t} b$	$-8.628 \cdot 10^{-6}$	$-8.628 \cdot 10^{-6}$	0	$4.214 \cdot 10^{-5}$	$4.214 \cdot 10^{-5}$	0	
$HH o z \bar{b} b$	$1.418 \cdot 10^{-6}$	$1.418 \cdot 10^{-6}$	0	$2.275 \cdot 10^{-7}$	$2.275 \cdot 10^{-7}$	0	
$HH \to z t \bar{t}$	$-9.046 \cdot 10^{-5}$	$-9.046 \cdot 10^{-5}$	0	$5.723 \cdot 10^{-5}$	$5.723 \cdot 10^{-5}$	0	
$HW^+ o \gamma t \bar{b}$	$-3.199 \cdot 10^{-6}$	$-3.199 \cdot 10^{-6}$	0	$1.256 \cdot 10^{-6}$	$1.256 \cdot 10^{-6}$	0	
$HW^- \to \bar{t}b$	-1.275	-1.275	0	1.925	1.925	0	
$Hz \to b\bar{b}$	0.04519	0.04519	0	0.1994	0.1994	0	
$Hz \to t\bar{t}$	-2.071	-2.071	0	1.451	1.451	0	
$W^+W^- \to H b \bar b$	$-4.334 \cdot 10^{-6}$	$-4.334 \cdot 10^{-6}$	0	$3.123 \cdot 10^{-6}$	$3.123 \cdot 10^{-6}$	0	
$W^+W^- o H t \bar t$	$5.428 \cdot 10^{-5}$	$5.428 \cdot 10^{-5}$	0	$2.369 \cdot 10^{-5}$	$2.369 \cdot 10^{-5}$	0	
$\bar{b}t \to \bar{d}u$	$6.766 \cdot 10^{-5}$	$6.766 \cdot 10^{-5}$	0	$2.051 \cdot 10^{-6}$	$2.051 \cdot 10^{-6}$	0	
$b\bar{b} o \mu^+\mu^-$	0.0001386	0.0001386	0	$3.633 \cdot 10^{-6}$	$3.633 \cdot 10^{-6}$	0	
$b\bar{b} o u_e \bar{ u}_e$	$5.127 \cdot 10^{-5}$	$5.127 \cdot 10^{-5}$	0	$1.841 \cdot 10^{-6}$	$1.841 \cdot 10^{-6}$	0	
$b\bar{b} o b\bar{b}$	$3.995 \cdot 10^{-5}$	$3.995 \cdot 10^{-5}$	0	$6.986 \cdot 10^{-6}$	$6.986 \cdot 10^{-6}$	0	
$b\bar{b} o d\bar{d}$	0.0003411	0.0003411	0	$1.134 \cdot 10^{-5}$	$1.134 \cdot 10^{-5}$	0	
$b\bar{b} o t\bar{t}$	0.07318	0.07318	0	0.01053	0.01053	0	
$b\bar{b} \to u\bar{u}$	0.0005932	0.0005932	0	$1.716 \cdot 10^{-5}$	$1.716 \cdot 10^{-5}$	0	
$b\bar{t} \to e^-\bar{\nu}_e$	0.0001125	0.0001125	0	$3.409 \cdot 10^{-6}$	$3.409 \cdot 10^{-6}$	0	
$t \bar t o u_\mu ar u_\mu$	$4.23 \cdot 10^{-5}$	$4.23 \cdot 10^{-5}$	0	$2.177 \cdot 10^{-6}$	$2.177 \cdot 10^{-6}$	0	
$t\bar{t} \to \tau^+ \tau^-$	$-2.884 \cdot 10^{-5}$	$-2.884 \cdot 10^{-5}$	0	$3.843 \cdot 10^{-6}$	$3.843 \cdot 10^{-6}$	0	

$t\bar{t} \to c\bar{c}$	0.0001031	0.0001031	0	$7.046 \cdot 10^{-6}$ $7.046 \cdot 10^{-6}$	0
$t\bar{t} \to d\bar{d}$	$7.795 \cdot 10^{-6}$	$7.795 \cdot 10^{-6}$	0	$2.388 \cdot 10^{-6}$ $2.388 \cdot 10^{-6}$	0
$t\bar{t} \to s\bar{s}$	$6.032 \cdot 10^{-5}$	$6.032 \cdot 10^{-5}$	0	$3.852 \cdot 10^{-6}$ $3.852 \cdot 10^{-6}$	0
$t\bar{t} \to t\bar{t}$	-0.2346	-0.2346	0	$0.009782 \qquad 0.009782$	0

2.2 cQd1

		inter	ference		square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
$b\bar{b} o b\bar{b}$	0.001497	0.001497	0	3.874	3.874	0		
$b\bar{b} \to d\bar{d}$	-0.004158	-0.004158	0	0.2858	0.2858	0		
$b\bar{b} \to t\bar{t}$	-0.002867	-0.002867	0	0.08411	0.08411	0		
$t\bar{t} \to d\bar{d}$	-0.01264	-0.01264	0	0.7826	0.7826	0		
$t\bar{t} \to s\bar{s}$	-0.01052	-0.01052	0	0.6308	0.6308	0		

2.3 cQq81

	interference				square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-{\tt mod2/mod1}$	
$b\bar{b} \to d\bar{d}$	0.2852	0.2852	0	0.1925	0.1925	0	
$b\bar{b} \to u\bar{u}$	0.6547	0.6547	0	0.4419	0.4419	0	
$t\bar{t} \to c\bar{c}$	0.1877	0.1877	0	0.1004	0.1004	0	
$t\bar{t} \to d\bar{d}$	0.06663	0.06663	0	0.01868	0.01868	0	
$t \bar t o s \bar s$	0.1119	0.1119	0	0.04924	0.04924	0	

2.4 cQt8

	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	1 - mod2/mod1
$b\bar{b} \to t\bar{t}$	-0.08282	-0.08282	0	0.01869	0.01869	0
$t\bar{t} \to t\bar{t}$	-7.582	-7.582	0	1.679	1.679	0

2.5 cQu1

		int	erference		square			
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$		
$b\bar{b} \to u\bar{u}$	0.002531	0.002531	0	0.08699	0.08699	0		
$t\bar{t} \to c\bar{c}$	0.01685	0.01685	0	0.481	0.481	0		

2.6 cdp

		interfer	ence		square			
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-{\tt mod2/mod1}$		
$HH \to HH$	0.453	0.453	0	0.2358	0.2358	0		
$HH \rightarrow HHH$	$-3.401 \cdot 10^{-6}$	$-3.401 \cdot 10^{-6}$	0	$4.311 \cdot 10^{-6}$	$4.311 \cdot 10^{-6}$	0		
$HH \to H t \bar t$	$-3.386 \cdot 10^{-5}$	$-3.386 \cdot 10^{-5}$	0	$1.442 \cdot 10^{-5}$	$1.442 \cdot 10^{-5}$	0		
$HH \rightarrow Hzz$	$-3.281 \cdot 10^{-6}$	$-3.281 \cdot 10^{-6}$	0	$2.036 \cdot 10^{-6}$	$2.036 \cdot 10^{-6}$	0		
$HH \rightarrow W^+W^-$	-0.05857	-0.05857	0	4.015	4.015	0		
$HH o W^+W^-\gamma$	-0.000307	-0.000307	0	0.0001582	0.0001582	0		
$HH \to W^+ \bar{t} b$	$-7.757 \cdot 10^{-6}$	$-7.757 \cdot 10^{-6}$	0	$2.07 \cdot 10^{-5}$	$2.07 \cdot 10^{-5}$	0		
$HH o W^+ e^- \bar{\nu}_e$	$1.42 \cdot 10^{-9}$	$1.42 \cdot 10^{-9}$	0	$2.133 \cdot 10^{-8}$	$2.133 \cdot 10^{-8}$	0		
$HH \to W^- u \bar{d}$	$5.795 \cdot 10^{-8}$	$5.795 \cdot 10^{-8}$	0	$7.165 \cdot 10^{-8}$	$7.165 \cdot 10^{-8}$	0		
$HH \to z\bar{b}b$	$-4.294 \cdot 10^{-6}$	$-4.294 \cdot 10^{-6}$	0	$7.909 \cdot 10^{-6}$	$7.909 \cdot 10^{-6}$	0		
$HH \to z \nu_e \bar{\nu}_e$	-0.02912	-0.02912	0	0.0144	0.0144	0		
$HH \to zc\bar{c}$	$7.587 \cdot 10^{-9}$	$7.587 \cdot 10^{-9}$	0	$2.665 \cdot 10^{-8}$	$2.665 \cdot 10^{-8}$	0		
$HH \to z d\bar{d}$	$1.194 \cdot 10^{-7}$	$1.194 \cdot 10^{-7}$	0	$9.483 \cdot 10^{-9}$	$9.483 \cdot 10^{-9}$	0		
$HH \to ze^+e^-$	$5.719 \cdot 10^{-9}$	$5.719 \cdot 10^{-9}$	0	$1.026 \cdot 10^{-8}$	$1.026 \cdot 10^{-8}$	0		

$HH \to z t \bar t$	$7.449 \cdot 10^{-5}$	$7.449 \cdot 10^{-5}$	0	$3.011 \cdot 10^{-5}$ $3.011 \cdot 10^{-5}$	0
$HH \rightarrow zz$	-0.122	-0.122	0	1.981 1.981	0
$HW^+ \to \gamma t \bar{b}$	$7.338 \cdot 10^{-7}$	$7.338 \cdot 10^{-7}$	0	$2.224 \cdot 10^{-8}$ $2.224 \cdot 10^{-8}$	0
$HW^+ \to \gamma u \bar{d}$	$2.271 \cdot 10^{-9}$	$2.271 \cdot 10^{-9}$	0	$6.885 \cdot 10^{-11} 6.885 \cdot 10^{-11}$	0
$HW^+ \to u\bar{d}$	0.002726	0.002726	0	$8.262 \cdot 10^{-5}$ $8.262 \cdot 10^{-5}$	0
$HW^- o \bar{t}b$	0.04747	0.04747	0	$0.001439 \qquad 0.001439$	0
$HW^- \to \gamma e^- \bar{\nu}_e$	$3.209 \cdot 10^{-9}$	$3.209 \cdot 10^{-9}$	0	$9.728 \cdot 10^{-11} 9.728 \cdot 10^{-11}$	0
$HW^- o \mu^- \bar{\nu}_\mu$	0.00079	0.00079	0	$2.395 \cdot 10^{-5}$ $2.395 \cdot 10^{-5}$	0
$H\gamma o t ar t$	0.06094	0.06094	0	$0.001847 \qquad 0.001847$	0
$Hz \to \mu^+\mu^-$	0.0003878	0.0003878	0	$1.175 \cdot 10^{-5}$ $1.175 \cdot 10^{-5}$	0
$Hz \to \nu_{\tau} \bar{\nu}_{\tau}$	0.0007285	0.0007285	0	$2.208 \cdot 10^{-5}$ $2.208 \cdot 10^{-5}$	0
$Hz \to b\bar{b}$	0.0003211	0.0003211	0	$9.734 \cdot 10^{-6}$ $9.734 \cdot 10^{-6}$	0
$Hz \to s\bar{s}$	0.001547	0.001547	0	$4.689 \cdot 10^{-5}$ $4.689 \cdot 10^{-5}$	0
$Hz \to t\bar{t}$	0.2199	0.2199	0	0.006665 0.006665	0
$Hz \to u\bar{u}$	0.00017	0.00017	0	$5.154 \cdot 10^{-6}$ $5.154 \cdot 10^{-6}$	0
$W^+W^- \to H b \bar b$	$5.899 \cdot 10^{-7}$	$5.899 \cdot 10^{-7}$	0	$1.788 \cdot 10^{-8}$ $1.788 \cdot 10^{-8}$	0
$W^+W^- o Hc\bar{c}$	$2.714 \cdot 10^{-6}$	$2.714 \cdot 10^{-6}$	0	$8.226 \cdot 10^{-8}$ $8.226 \cdot 10^{-8}$	0
$W^+W^- \to H d\bar{d}$	$4.353 \cdot 10^{-5}$	$4.353 \cdot 10^{-5}$	0	$1.319 \cdot 10^{-6}$ $1.319 \cdot 10^{-6}$	0
$W^+W^- o H t \bar t$	$1.03 \cdot 10^{-5}$	$1.03 \cdot 10^{-5}$	0	$1.07 \cdot 10^{-5}$ $1.07 \cdot 10^{-5}$	0
$W^+W^- \to W^+W^-$	-0.04625	-0.04625	0	0.01613 0.01613	0
$t\bar{t} \to t\bar{t}$	-0.1826	-0.1826	0	$0.009072 \qquad 0.009072$	0
$zz \to W^+W^-$	7.132	7.132	0	$0.4473 \qquad 0.4473$	0
$zz \to zz$	0.01965	0.01965	0	$0.001192 \qquad 0.001192$	0

2.7 ctW

		interfer	rence	square			
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
$HH \to W^+ \bar{t} b$	$-1.068 \cdot 10^{-5}$	$-1.068 \cdot 10^{-5}$	0	$1.831 \cdot 10^{-5}$	$1.831 \cdot 10^{-5}$	0	
$HH o zt\bar{t}$	$4.308 \cdot 10^{-6}$	$4.308 \cdot 10^{-6}$	0	$2.588 \cdot 10^{-5}$	$2.588 \cdot 10^{-5}$	0	

$HW^+ \to \gamma t \bar{b}$	$1.309 \cdot 10^{-6}$	$1.309 \cdot 10^{-6}$	0	$8.538 \cdot 10^{-6}$	$8.538 \cdot 10^{-6}$	0
$HW^- o \bar{t}b$	-0.2682	-0.2682	0	2.274	2.274	0
$H\gamma \to t\bar{t}$	-0.1749	-0.1749	0	0.7105	0.7105	0
$Hz \to t\bar{t}$	-0.03366	-0.03366	0	2.847	2.847	0
$W^+W^- \to Hb\bar{b}$	$3.259 \cdot 10^{-6}$	$3.259 \cdot 10^{-6}$	0	$8.764 \cdot 10^{-6}$	$8.764 \cdot 10^{-6}$	0
$W^+W^- o H t \bar t$	$-3.606 \cdot 10^{-6}$	$-3.606 \cdot 10^{-6}$	0	$5.456 \cdot 10^{-5}$	$5.456 \cdot 10^{-5}$	0
$\bar{b}t \to \bar{d}u$	0.001639	0.001639	0	0.004626	0.004626	0
$b\bar{b} o t\bar{t}$	-0.1343	-0.1343	0	0.2216	0.2216	0
$b\bar{t} \to e^- \bar{\nu}_e$	0.001314	0.001314	0	0.003153	0.003153	0
$t\bar{t} o u_{\mu} \bar{ u}_{\mu}$	$-5.799 \cdot 10^{-5}$	$-5.799 \cdot 10^{-5}$	0	0.002164	0.002164	0
$t\bar{t} \rightarrow \tau^+ \tau^-$	0.001502	0.001502	0	0.001626	0.001626	0
$t\bar{t} \to c\bar{c}$	0.003619	0.003619	0	0.006772	0.006772	0
$t\bar{t} o d\bar{d}$	0.0001512	0.0001512	0	0.00408	0.00408	0
$t\bar{t} \to s\bar{s}$	0.0009766	0.0009766	0	0.005597	0.005597	0
t ar t o t ar t	-0.5141	-0.5141	0	0.3187	0.3187	0

2.8 ctd1

		inter	ference		square		
	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	mod1	mod2	$1-\mathtt{mod}2/\mathtt{mod}1$	
$b\bar{b} \to t\bar{t}$	-0.02917	-0.02917	0	0.5037	0.5037	0	
$t\bar{t} \to d\bar{d}$	-0.001614	-0.001614	0	0.02101	0.02101	0	
$t\bar{t} \to s\bar{s}$	-0.003577	-0.003577	0	0.05539	0.05539	0	

2.9 ctd8

$t\bar{t} \to d\bar{d}$	0.03332	0.03332	0	0.00467	0.00467	0
$t\bar{t} \to s\bar{s}$	0.05596	0.05596	0	0.01231	0.01231	0

2.10 ctq1

		in	nterference		square			
	mod1	mod2	$1-{\tt mod2/mod1}$	mod1	mod2	$1-{\tt mod2/mod1}$		
$t\bar{t} \to c\bar{c}$	0.01993	0.01993	0	0.481	0.481	0		
$t\bar{t} \to d\bar{d}$	0.01672	0.01672	0	0.7826	0.7826	0		
$t \bar t o s \bar s$	0.01231	0.01231	0	0.6308	0.6308	0		

2.11 sm

			interference	square
	mod1	mod2	$1-{\tt mod2/mod1}$	$\verb mod1 \qquad \verb mod2 \qquad 1-\verb mod2/mod1 $
HH o HH	0	0	0	0.2176 0.2176 0
$HH \to HHH$	0	0	0	$6.706 \cdot 10^{-7} 6.706 \cdot 10^{-7} \qquad 0$
$HH o Htar{t}$	0	0	0	$2.04 \cdot 10^{-5} \qquad 2.04 \cdot 10^{-5} \qquad \qquad 0$
HH o Hzz	0	0	0	$6.086 \cdot 10^{-6} 6.086 \cdot 10^{-6} \qquad 0$
$HH o W^+W^-$	0	0	0	$0.08983 \qquad 0.08983 \qquad 0$
$HH o W^+W^-\gamma$	0	0	0	$0.0001726 \qquad 0.0001726 \qquad \qquad 0$
$HH \to W^+ \bar{t} b$	0	0	0	$1.087 \cdot 10^{-5}$ $1.087 \cdot 10^{-5}$ 0
$HH o W^+ e^- \bar{\nu}_e$	0	0	0	$1.445 \cdot 10^{-7} 1.445 \cdot 10^{-7} \qquad 0$
$HH \to W^- u \bar{d}$	0	0	0	$2.866 \cdot 10^{-7} 2.866 \cdot 10^{-7} 0$
$HH o z \bar{b} b$	0	0	0	$2.285 \cdot 10^{-6}$ $2.285 \cdot 10^{-6}$ 0
$HH \to z \nu_e \bar{\nu}_e$	0	0	0	$0.01538 \qquad 0.01538 \qquad 0$
$HH \to zc\bar{c}$	0	0	0	$6.035 \cdot 10^{-8} 6.035 \cdot 10^{-8}$
$HH \to z d\bar{d}$	0	0	0	$7.249 \cdot 10^{-7} 7.249 \cdot 10^{-7} \qquad 0$
$HH \to z e^+ e^-$	0	0	0	$9.441 \cdot 10^{-8} 9.441 \cdot 10^{-8} 0$

HH o zt ar t	0	0	0	$0.0001392 \qquad 0.0001392$	0
$HH \rightarrow zz$	0	0	0	$0.07796 \qquad 0.07796$	0
$HW^+ \to \gamma t \bar{b}$	0	0	0	$6.052 \cdot 10^{-6}$ $6.052 \cdot 10^{-6}$	0
$HW^+ \rightarrow \gamma u \bar{d}$	0	0	0	$1.873 \cdot 10^{-8}$ $1.873 \cdot 10^{-8}$	0
$HW^+ \rightarrow u\bar{d}$	0	0	0	$0.02248 \qquad 0.02248$	0
$HW^- o \bar{t}b$	0	0	0	$0.3915 \qquad 0.3915$	0
$HW^- \to \gamma e^- \bar{\nu}_e$	0	0	0	$2.647 \cdot 10^{-8}$ $2.647 \cdot 10^{-8}$	0
$HW^- o \mu^- \bar{\nu}_{\mu}$	0	0	0	$0.006515 \qquad 0.006515$	0
$H\gamma o t ar t$	0	0	0	0.5026 0.5026	0
$Hz \to \mu^+\mu^-$	0	0	0	$0.003198 \qquad 0.003198$	0
$Hz \to \nu_{\tau} \bar{\nu}_{\tau}$	0	0	0	0.006008 0.006008	0
$Hz \to b\bar{b}$	0	0	0	$0.002648 \qquad 0.002648$	0
$Hz \to s\bar{s}$	0	0	0	$0.01276 \qquad 0.01276$	0
$Hz \to t\bar{t}$	0	0	0	1.813 1.813	0
$Hz \to u\bar{u}$	0	0	0	$0.001402 \qquad 0.001402$	0
$W^+W^- \to H b \bar b$	0	0	0	$4.866 \cdot 10^{-6}$ $4.866 \cdot 10^{-6}$	0
$W^+W^- \to H c \bar c$	0	0	0	$2.238 \cdot 10^{-5}$ $2.238 \cdot 10^{-5}$	0
$W^+W^- \to H d\bar{d}$	0	0	0	$0.000359 \qquad 0.000359$	0
$W^+W^- o H t \bar t$	0	0	0	$9.632 \cdot 10^{-5}$ $9.632 \cdot 10^{-5}$	0
$W^+W^- \to W^+W^-$	0	0	0	4.768 4.768	0
$W^+W^- o \gamma\gamma$	0	0	0	0.2091 0.2091	0
$W^+W^- \to \gamma\gamma\gamma$	0	0	0	$1.583 \cdot 10^{-6}$ $1.583 \cdot 10^{-6}$	0
$\bar{b}t \to \bar{d}u$	0	0	0	0.000558 0.000558	0
$\gamma W^+ \to z W^+$	0	0	0	0.1702 0.1702	0
$\mu^+\mu^- \to \tau^+\tau^-$	0	0	0	$0.00684 \qquad 0.00684$	0
$\nu_{\tau}\bar{\nu}_{\tau} \to \nu_{\tau}\bar{\nu}_{\tau}$	0	0	0	$3.181 \cdot 10^{-6} 3.181 \cdot 10^{-6}$	0
$ u_e \bar{\nu}_e o u_\mu \bar{\nu}_\mu$	0	0	0	$0.007679 \qquad 0.007679$	0
$b\bar{b} o \gamma \gamma$	0	0	0	$0.0001017 \qquad 0.0001017$	0
$b\bar{b} \to \mu^+\mu^-$	0	0	0	$0.001732 \qquad 0.001732$	0

$b\bar{b} o u_e \bar{ u}_e$	0	0	0	0.0004371	0.0004371	0
$b\bar{b} o b\bar{b}$	0	0	0	1.957	1.957	0
$b\bar{b} o d\bar{d}$	0	0	0	0.4928	0.4928	0
$b\bar{b} o t\bar{t}$	0	0	0	0.5188	0.5188	0
$b\bar{b} \to u\bar{u}$	0	0	0	0.5755	0.5755	0
$b\bar{t} \to e^- \bar{\nu}_e$	0	0	0	0.0009276	0.0009276	0
$c\bar{c} \to \mu^+ \mu^-$	0	0	0	0.002079	0.002079	0
$c\bar{s} \to \tau^+ \nu_{\tau}$	0	0	0	0.0002101	0.0002101	0
$d\bar{d} \to c\bar{c}$	0	0	0	0.9083	0.9083	0
$d\bar{d} \rightarrow e^+e^-$	0	0	0	0.0002884	0.0002884	0
$e^+\nu_\mu \to e^+\nu_\mu$	0	0	0	0.01434	0.01434	0
$e^+\nu_e \to \mu^+\nu_\mu$	0	0	0	0.01543	0.01543	0
$e^+\nu_e \to e^+\nu_e$	0	0	0	0.1081	0.1081	0
$e^+\tau^- \to e^+\tau^-$	0	0	0	0.05483	0.05483	0
$e^+e^- \to \mu^+\mu^-$	0	0	0	0.007337	0.007337	0
$e^+e^- \rightarrow e^+e^-$	0	0	0	7.944	7.944	0
gg o gg	0	0	0	43.62	43.62	0
gg o ggg	0	0	0	0.4772	0.4772	0
$gg o t \bar t$	0	0	0	0.9189	0.9189	0
$gg \to u\bar{u}$	0	0	0	0.3671	0.3671	0
$s\bar{s} \to \nu_{\tau}\bar{\nu}_{\tau}$	0	0	0	0.004105	0.004105	0
$s\bar{s} \to s\bar{s}$	0	0	0	17.34	17.34	0
$t\bar{t} o u_{\mu} \bar{ u}_{\mu}$	0	0	0	0.000525	0.000525	0
$t\bar{t} \to \tau^+ \tau^-$	0	0	0	0.0009141	0.0009141	0
$t\bar{t} \to c\bar{c}$	0	0	0	0.6392	0.6392	0
$t\bar{t} \to d\bar{d}$	0	0	0	0.842	0.842	0
$t\bar{t} \to s\bar{s}$	0	0	0	0.7279	0.7279	0
$t\bar{t} \to t\bar{t}$	0	0	0	17.47	17.47	0
$u\bar{d} \to \mu^+ \nu_{\mu}$	0	0	0	0.01448	0.01448	0

$u\bar{d} \to c\bar{s}$	0	0	0	0.006627	0.006627	0
$u\bar{d} \to u\bar{d}$	0	0	0	223.4	223.4	0
$u\bar{u} \to \nu_e \bar{\nu}_e$	0	0	0	0.002695	0.002695	0
$u\bar{u} \to u\bar{u}$	0	0	0	2.017	2.017	0
$zz \to W^+W^-$	0	0	0	107.2	107.2	0
$zz \rightarrow zz$	0	0	0	0.08105	0.08105	0