

1 By process

1.1 $HH \rightarrow HH$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.06719 | 0.06719 | 0 |

1.2 $HH \rightarrow HHH$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $4.415 \cdot 10^{-8}$ | $4.415 \cdot 10^{-8}$ | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|----------------------|----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $1.03 \cdot 10^{-9}$ | $1.03 \cdot 10^{-9}$ | 0 |

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

| | interference | | | square | | |
|-----------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcdH | $-2.131 \cdot 10^{-12}$ | $-2.131 \cdot 10^{-12}$ | 0 | $8.641 \cdot 10^{-16}$ | $8.641 \cdot 10^{-16}$ | 0 |
| DeltaucdH | $-5 \cdot 10^{-9}$ | $-5 \cdot 10^{-9}$ | 0 | $1.691 \cdot 10^{-9}$ | $1.691 \cdot 10^{-9}$ | 0 |
| sm | 0 | 0 | 0 | $3.945 \cdot 10^{-9}$ | $3.945 \cdot 10^{-9}$ | 0 |

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

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcdH | $-4.66 \cdot 10^{-19}$ | $-4.66 \cdot 10^{-19}$ | 0 | $1.301 \cdot 10^{-25}$ | $1.301 \cdot 10^{-25}$ | 0 |
| DeltaucdH | $-1.29 \cdot 10^{-16}$ | $-1.29 \cdot 10^{-16}$ | 0 | $4.787 \cdot 10^{-21}$ | $4.787 \cdot 10^{-21}$ | 0 |
| sm | 0 | 0 | 0 | $9.112 \cdot 10^{-14}$ | $9.112 \cdot 10^{-14}$ | 0 |

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

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuH | $-2.329 \cdot 10^{-8}$ | $-2.329 \cdot 10^{-8}$ | 0 | $4.999 \cdot 10^{-12}$ | $4.999 \cdot 10^{-12}$ | 0 |
| DeltaucuH | $-3.978 \cdot 10^{-5}$ | $-3.978 \cdot 10^{-5}$ | 0 | $1.459 \cdot 10^{-5}$ | $1.459 \cdot 10^{-5}$ | 0 |
| sm | 0 | 0 | 0 | $2.191 \cdot 10^{-5}$ | $2.191 \cdot 10^{-5}$ | 0 |

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

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuH | $-8.32 \cdot 10^{-25}$ | $-8.32 \cdot 10^{-25}$ | 0 | $5.336 \cdot 10^{-34}$ | $5.336 \cdot 10^{-34}$ | 0 |
| DeltaucuH | $-1.78 \cdot 10^{-25}$ | $-1.78 \cdot 10^{-25}$ | 0 | $2.442 \cdot 10^{-35}$ | $2.442 \cdot 10^{-35}$ | 0 |
| sm | 0 | 0 | 0 | $6.973 \cdot 10^{-15}$ | $6.973 \cdot 10^{-15}$ | 0 |

1.8 $HH \rightarrow Hzz$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $7.801 \cdot 10^{-6}$ | $7.801 \cdot 10^{-6}$ | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|--------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.0903 | 0.0903 | $-2.658 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $2.645 \cdot 10^{-7}$ | $2.645 \cdot 10^{-7}$ | $1.361 \cdot 10^{-6}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $-8.044 \cdot 10^{-10}$ | $-8.044 \cdot 10^{-10}$ | $4.351 \cdot 10^{-7}$ | $1.398 \cdot 10^{-12}$ | $1.398 \cdot 10^{-12}$ | 0 |
| DeltadcH | $-2.501 \cdot 10^{-11}$ | $-2.501 \cdot 10^{-11}$ | $-3.999 \cdot 10^{-8}$ | $1.72 \cdot 10^{-15}$ | $1.72 \cdot 10^{-15}$ | $-1.163 \cdot 10^{-7}$ |
| DeltadcW | $5.901 \cdot 10^{-12}$ | $5.901 \cdot 10^{-12}$ | 0 | $3.36 \cdot 10^{-15}$ | $3.36 \cdot 10^{-15}$ | $-2.976 \cdot 10^{-8}$ |
| DeltadcuH | $7.755 \cdot 10^{-9}$ | $7.755 \cdot 10^{-9}$ | $-6.447 \cdot 10^{-8}$ | $1.626 \cdot 10^{-12}$ | $1.626 \cdot 10^{-12}$ | $-6.149 \cdot 10^{-8}$ |
| DeltadcuW | $1.647 \cdot 10^{-8}$ | $1.647 \cdot 10^{-8}$ | $-1.214 \cdot 10^{-7}$ | $1.108 \cdot 10^{-11}$ | $1.108 \cdot 10^{-11}$ | 0 |
| DeltaucHq3 | $-1.374 \cdot 10^{-6}$ | $-1.374 \cdot 10^{-6}$ | $4.366 \cdot 10^{-7}$ | $4.081 \cdot 10^{-6}$ | $4.081 \cdot 10^{-6}$ | 0 |
| DeltaucH | $-4.813 \cdot 10^{-9}$ | $-4.813 \cdot 10^{-9}$ | $-2.701 \cdot 10^{-7}$ | $8.347 \cdot 10^{-10}$ | $8.347 \cdot 10^{-10}$ | $-8.387 \cdot 10^{-8}$ |
| DeltaucW | $-1.093 \cdot 10^{-9}$ | $-1.093 \cdot 10^{-9}$ | $-6.405 \cdot 10^{-7}$ | $1.893 \cdot 10^{-8}$ | $1.893 \cdot 10^{-8}$ | $-5.283 \cdot 10^{-8}$ |
| DeltaucH | $1.325 \cdot 10^{-5}$ | $1.325 \cdot 10^{-5}$ | $-7.549 \cdot 10^{-8}$ | $4.745 \cdot 10^{-6}$ | $4.745 \cdot 10^{-6}$ | $-4.215 \cdot 10^{-8}$ |
| DeltaucW | $-2.576 \cdot 10^{-6}$ | $-2.576 \cdot 10^{-6}$ | $8.928 \cdot 10^{-7}$ | $1.678 \cdot 10^{-5}$ | $1.678 \cdot 10^{-5}$ | 0 |
| sm | 0 | 0 | 0 | $6.767 \cdot 10^{-6}$ | $6.767 \cdot 10^{-6}$ | $-3.842 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $7.793 \cdot 10^{-8}$ | $7.793 \cdot 10^{-8}$ | $-3.208 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $1.337 \cdot 10^{-15}$ | $1.337 \cdot 10^{-15}$ | $-2.243 \cdot 10^{-7}$ | $1.095 \cdot 10^{-24}$ | $1.095 \cdot 10^{-24}$ | $-9.131 \cdot 10^{-8}$ |
| DeltadcH | $-1.237 \cdot 10^{-24}$ | $-1.237 \cdot 10^{-24}$ | $8.083 \cdot 10^{-8}$ | $6.486 \cdot 10^{-34}$ | $6.486 \cdot 10^{-34}$ | $-6.167 \cdot 10^{-8}$ |
| DeltadcW | $-2.211 \cdot 10^{-23}$ | $-2.211 \cdot 10^{-23}$ | $-4.07 \cdot 10^{-7}$ | $3.617 \cdot 10^{-34}$ | $3.617 \cdot 10^{-34}$ | $-4.423 \cdot 10^{-7}$ |
| DeltadcuH | $-4.106 \cdot 10^{-27}$ | $-4.106 \cdot 10^{-27}$ | $-2.168 \cdot 10^{-5}$ | $1.131 \cdot 10^{-34}$ | $1.131 \cdot 10^{-34}$ | $-8.844 \cdot 10^{-8}$ |
| DeltadcuW | $2.217 \cdot 10^{-24}$ | $2.217 \cdot 10^{-24}$ | $-1.353 \cdot 10^{-7}$ | $1.603 \cdot 10^{-34}$ | $1.603 \cdot 10^{-34}$ | $-6.237 \cdot 10^{-8}$ |
| DeltaucHq3 | $2.861 \cdot 10^{-16}$ | $2.861 \cdot 10^{-16}$ | $-2.097 \cdot 10^{-7}$ | $5.012 \cdot 10^{-26}$ | $5.012 \cdot 10^{-26}$ | $-1.197 \cdot 10^{-7}$ |
| DeltaucH | $-8.253 \cdot 10^{-25}$ | $-8.253 \cdot 10^{-25}$ | $-4.847 \cdot 10^{-8}$ | $2.107 \cdot 10^{-35}$ | $2.107 \cdot 10^{-35}$ | $-4.745 \cdot 10^{-8}$ |
| DeltaucW | $7.368 \cdot 10^{-26}$ | $7.368 \cdot 10^{-26}$ | $1.384 \cdot 10^{-6}$ | $3.434 \cdot 10^{-35}$ | $3.434 \cdot 10^{-35}$ | $-8.736 \cdot 10^{-8}$ |
| DeltaucuH | $-8.783 \cdot 10^{-28}$ | $-8.784 \cdot 10^{-28}$ | $-2.168 \cdot 10^{-5}$ | $5.175 \cdot 10^{-36}$ | $5.175 \cdot 10^{-36}$ | $-7.729 \cdot 10^{-8}$ |
| DeltaucuW | $-1.271 \cdot 10^{-24}$ | $-1.271 \cdot 10^{-24}$ | $-4.72 \cdot 10^{-7}$ | $3.499 \cdot 10^{-36}$ | $3.499 \cdot 10^{-36}$ | $-4.572 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $3.936 \cdot 10^{-6}$ | $3.936 \cdot 10^{-6}$ | $-4.319 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-6.7 \cdot 10^{-11}$ | $-6.7 \cdot 10^{-11}$ | $2.836 \cdot 10^{-7}$ | $2.098 \cdot 10^{-13}$ | $2.098 \cdot 10^{-13}$ | 0 |
| DeltadcHq1 | $2.935 \cdot 10^{-10}$ | $2.935 \cdot 10^{-10}$ | $-6.814 \cdot 10^{-8}$ | $2.087 \cdot 10^{-13}$ | $2.087 \cdot 10^{-13}$ | 0 |
| DeltadcHq3 | $2.935 \cdot 10^{-10}$ | $2.935 \cdot 10^{-10}$ | $-6.814 \cdot 10^{-8}$ | $2.087 \cdot 10^{-13}$ | $2.087 \cdot 10^{-13}$ | 0 |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdB | $1.21 \cdot 10^{-12}$ | $1.21 \cdot 10^{-12}$ | 0 | $6.496 \cdot 10^{-17}$ | $6.496 \cdot 10^{-17}$ | $3.54 \cdot 10^{-7}$ |
| DeltadcdH | $-4.135 \cdot 10^{-13}$ | $-4.135 \cdot 10^{-13}$ | $-3.627 \cdot 10^{-7}$ | $2.271 \cdot 10^{-16}$ | $2.271 \cdot 10^{-16}$ | $-1.321 \cdot 10^{-7}$ |
| DeltadcdW | $1.474 \cdot 10^{-11}$ | $1.474 \cdot 10^{-11}$ | $-2.035 \cdot 10^{-7}$ | $1.297 \cdot 10^{-15}$ | $1.297 \cdot 10^{-15}$ | $-1.542 \cdot 10^{-7}$ |
| DeltaucHq1 | $1.046 \cdot 10^{-6}$ | $1.046 \cdot 10^{-6}$ | 0 | $6.426 \cdot 10^{-7}$ | $6.426 \cdot 10^{-7}$ | 0 |
| DeltaucHq3 | $5.014 \cdot 10^{-7}$ | $5.014 \cdot 10^{-7}$ | $-5.983 \cdot 10^{-8}$ | $6.089 \cdot 10^{-7}$ | $6.089 \cdot 10^{-7}$ | 0 |
| DeltaucdB | $3.398 \cdot 10^{-10}$ | $3.398 \cdot 10^{-10}$ | 0 | $4.411 \cdot 10^{-10}$ | $4.411 \cdot 10^{-10}$ | $3.401 \cdot 10^{-7}$ |
| DeltaucdH | $-2.357 \cdot 10^{-9}$ | $-2.357 \cdot 10^{-9}$ | $-1.188 \cdot 10^{-6}$ | $1.591 \cdot 10^{-9}$ | $1.591 \cdot 10^{-9}$ | $-1.886 \cdot 10^{-7}$ |
| DeltaucdW | $6.156 \cdot 10^{-10}$ | $6.156 \cdot 10^{-10}$ | $-2.437 \cdot 10^{-7}$ | $1.447 \cdot 10^{-9}$ | $1.447 \cdot 10^{-9}$ | $-1.382 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $5.403 \cdot 10^{-6}$ | $5.403 \cdot 10^{-6}$ | $-9.254 \cdot 10^{-8}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|----------------------|----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $1.65 \cdot 10^{-7}$ | $1.65 \cdot 10^{-7}$ | 0 |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHu | $1.166 \cdot 10^{-11}$ | $1.166 \cdot 10^{-11}$ | $3.43 \cdot 10^{-7}$ | $9.24 \cdot 10^{-16}$ | $9.24 \cdot 10^{-16}$ | 0 |
| DeltadcHq1 | $-1.384 \cdot 10^{-13}$ | $-1.384 \cdot 10^{-13}$ | $-1.446 \cdot 10^{-7}$ | $2.657 \cdot 10^{-20}$ | $2.657 \cdot 10^{-20}$ | 0 |
| DeltadcHq3 | $1.384 \cdot 10^{-13}$ | $1.384 \cdot 10^{-13}$ | $-1.446 \cdot 10^{-7}$ | $2.657 \cdot 10^{-20}$ | $2.657 \cdot 10^{-20}$ | 0 |
| DeltadcuB | $4.133 \cdot 10^{-18}$ | $4.133 \cdot 10^{-18}$ | $-5.565 \cdot 10^{-7}$ | $1.139 \cdot 10^{-24}$ | $1.139 \cdot 10^{-24}$ | $3.511 \cdot 10^{-7}$ |
| DeltadcuH | $-8.975 \cdot 10^{-17}$ | $-8.975 \cdot 10^{-17}$ | $-3.231 \cdot 10^{-7}$ | $1.598 \cdot 10^{-23}$ | $1.598 \cdot 10^{-23}$ | $-3.756 \cdot 10^{-7}$ |
| DeltadcuW | $-5.643 \cdot 10^{-17}$ | $-5.643 \cdot 10^{-17}$ | $-6.556 \cdot 10^{-7}$ | $1.858 \cdot 10^{-23}$ | $1.858 \cdot 10^{-23}$ | $-1.076 \cdot 10^{-7}$ |
| DeltaucHq1 | $-1.669 \cdot 10^{-10}$ | $-1.669 \cdot 10^{-10}$ | $-1.798 \cdot 10^{-7}$ | $3.365 \cdot 10^{-14}$ | $3.365 \cdot 10^{-14}$ | 0 |
| DeltaucHq3 | $2.58 \cdot 10^{-11}$ | $2.58 \cdot 10^{-11}$ | $-1.938 \cdot 10^{-7}$ | $9.241 \cdot 10^{-16}$ | $9.241 \cdot 10^{-16}$ | 0 |
| DeltaucB | $5.81 \cdot 10^{-15}$ | $5.81 \cdot 10^{-15}$ | $-4.131 \cdot 10^{-7}$ | $1.969 \cdot 10^{-19}$ | $1.969 \cdot 10^{-19}$ | $3.554 \cdot 10^{-7}$ |

| | | | | | | |
|-----------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucuH | $-1.674 \cdot 10^{-14}$ | $-1.674 \cdot 10^{-14}$ | $-2.987 \cdot 10^{-7}$ | $5.556 \cdot 10^{-19}$ | $5.556 \cdot 10^{-19}$ | $-3.78 \cdot 10^{-7}$ |
| DeltaucuW | $-1.396 \cdot 10^{-15}$ | $-1.396 \cdot 10^{-15}$ | $-8.596 \cdot 10^{-7}$ | $1.3 \cdot 10^{-19}$ | $1.3 \cdot 10^{-19}$ | $-7.692 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | $3.473 \cdot 10^{-7}$ | $3.473 \cdot 10^{-7}$ | $-1.44 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-2.126 \cdot 10^{-16}$ | $-2.126 \cdot 10^{-16}$ | $3.292 \cdot 10^{-7}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| DeltadcHq1 | $1.153 \cdot 10^{-15}$ | $1.153 \cdot 10^{-15}$ | $-8.673 \cdot 10^{-8}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| DeltadcHq3 | $1.153 \cdot 10^{-15}$ | $1.153 \cdot 10^{-15}$ | $-8.673 \cdot 10^{-8}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| DeltadcdB | $-5.92 \cdot 10^{-25}$ | $-5.92 \cdot 10^{-25}$ | $1.689 \cdot 10^{-8}$ | $3.811 \cdot 10^{-35}$ | $3.811 \cdot 10^{-35}$ | $3.412 \cdot 10^{-7}$ |
| DeltadcdH | $-8.525 \cdot 10^{-25}$ | $-8.525 \cdot 10^{-25}$ | $-2.581 \cdot 10^{-7}$ | $1.398 \cdot 10^{-33}$ | $1.398 \cdot 10^{-33}$ | $-7.152 \cdot 10^{-8}$ |
| DeltadcdW | $-1.648 \cdot 10^{-24}$ | $-1.648 \cdot 10^{-24}$ | $-2.427 \cdot 10^{-7}$ | $6.776 \cdot 10^{-34}$ | $6.776 \cdot 10^{-34}$ | $-1.181 \cdot 10^{-7}$ |
| DeltaucHq1 | $7.91 \cdot 10^{-16}$ | $7.91 \cdot 10^{-16}$ | $-6.321 \cdot 10^{-8}$ | $2.041 \cdot 10^{-25}$ | $2.041 \cdot 10^{-25}$ | 0 |
| DeltaucHq3 | $2.467 \cdot 10^{-16}$ | $2.467 \cdot 10^{-16}$ | $-8.108 \cdot 10^{-8}$ | $5.617 \cdot 10^{-26}$ | $5.617 \cdot 10^{-26}$ | 0 |
| DeltaucdB | $2.386 \cdot 10^{-25}$ | $2.386 \cdot 10^{-25}$ | $-7.124 \cdot 10^{-7}$ | $2.911 \cdot 10^{-35}$ | $2.912 \cdot 10^{-35}$ | $-1.133 \cdot 10^{-6}$ |
| DeltaucdH | $-2.209 \cdot 10^{-25}$ | $-2.209 \cdot 10^{-25}$ | $-1.358 \cdot 10^{-7}$ | $3.215 \cdot 10^{-35}$ | $3.215 \cdot 10^{-35}$ | $-9.331 \cdot 10^{-8}$ |
| DeltaucdW | $4.323 \cdot 10^{-25}$ | $4.323 \cdot 10^{-25}$ | $-8.559 \cdot 10^{-7}$ | $9.554 \cdot 10^{-35}$ | $9.554 \cdot 10^{-35}$ | $-1.204 \cdot 10^{-6}$ |
| sm | 0 | 0 | 0 | $3.827 \cdot 10^{-7}$ | $3.827 \cdot 10^{-7}$ | $-1.045 \cdot 10^{-7}$ |

1.18 $HH \rightarrow z e^+ e^-$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $2.667 \cdot 10^{-8}$ | $2.667 \cdot 10^{-8}$ | $-3.749 \cdot 10^{-8}$ |

1.19 $HH \rightarrow z t \bar{t}$

| | interference | | | square | | |
|------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHu | -0.0001435 | -0.0001435 | $-6.97 \cdot 10^{-8}$ | $5.654 \cdot 10^{-5}$ | $5.654 \cdot 10^{-5}$ | 0 |
| DeltadcHq1 | $7.143 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | $4.2 \cdot 10^{-8}$ | $1.937 \cdot 10^{-11}$ | $1.937 \cdot 10^{-11}$ | 0 |
| DeltadcHq3 | $-7.143 \cdot 10^{-8}$ | $-7.143 \cdot 10^{-8}$ | $4.2 \cdot 10^{-8}$ | $1.937 \cdot 10^{-11}$ | $1.937 \cdot 10^{-11}$ | 0 |
| DeltadcuB | $-2.504 \cdot 10^{-9}$ | $-2.504 \cdot 10^{-9}$ | $-3.595 \cdot 10^{-7}$ | $9.837 \cdot 10^{-12}$ | $9.837 \cdot 10^{-12}$ | $3.558 \cdot 10^{-7}$ |
| DeltadcuH | $-1.004 \cdot 10^{-9}$ | $-1.004 \cdot 10^{-9}$ | 0 | $2.959 \cdot 10^{-13}$ | $2.959 \cdot 10^{-13}$ | $-1.352 \cdot 10^{-7}$ |
| DeltadcuW | $5.178 \cdot 10^{-10}$ | $5.178 \cdot 10^{-10}$ | $-6.373 \cdot 10^{-7}$ | $1.907 \cdot 10^{-11}$ | $1.907 \cdot 10^{-11}$ | $-1.049 \cdot 10^{-7}$ |
| DeltaucHq1 | $1.192 \cdot 10^{-5}$ | $1.192 \cdot 10^{-5}$ | $-8.386 \cdot 10^{-8}$ | $1.999 \cdot 10^{-5}$ | $1.999 \cdot 10^{-5}$ | 0 |
| DeltaucHq3 | -0.000122 | -0.000122 | $8.196 \cdot 10^{-8}$ | $5.652 \cdot 10^{-5}$ | $5.652 \cdot 10^{-5}$ | 0 |
| DeltaucB | $-4.883 \cdot 10^{-7}$ | $-4.883 \cdot 10^{-7}$ | $-4.096 \cdot 10^{-7}$ | $1.695 \cdot 10^{-5}$ | $1.695 \cdot 10^{-5}$ | $3.539 \cdot 10^{-7}$ |
| DeltaucH | $-1.716 \cdot 10^{-6}$ | $-1.716 \cdot 10^{-6}$ | 0 | $8.635 \cdot 10^{-7}$ | $8.635 \cdot 10^{-7}$ | $-1.158 \cdot 10^{-7}$ |
| DeltaucW | $7.747 \cdot 10^{-6}$ | $7.747 \cdot 10^{-6}$ | $-6.067 \cdot 10^{-7}$ | $9.419 \cdot 10^{-5}$ | $9.419 \cdot 10^{-5}$ | $-1.062 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.0001113 | 0.0001113 | 0 |

1.20 $HH \rightarrow zz$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|--------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.1247 | 0.1247 | 0 |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $-2.186 \cdot 10^{-10}$ | $-2.186 \cdot 10^{-10}$ | $2.745 \cdot 10^{-7}$ | $5.807 \cdot 10^{-14}$ | $5.807 \cdot 10^{-14}$ | $2.239 \cdot 10^{-7}$ |
| DeltadcdB | $-1.094 \cdot 10^{-12}$ | $-1.094 \cdot 10^{-12}$ | 0 | $6.983 \cdot 10^{-16}$ | $6.983 \cdot 10^{-16}$ | $-1.146 \cdot 10^{-7}$ |
| DeltadcdH | $-1.006 \cdot 10^{-14}$ | $-1.006 \cdot 10^{-14}$ | $1.989 \cdot 10^{-7}$ | $8.453 \cdot 10^{-19}$ | $8.453 \cdot 10^{-19}$ | $2.366 \cdot 10^{-7}$ |
| DeltadcdW | $-5.918 \cdot 10^{-13}$ | $-5.918 \cdot 10^{-13}$ | $3.041 \cdot 10^{-7}$ | $1.698 \cdot 10^{-16}$ | $1.698 \cdot 10^{-16}$ | $2.945 \cdot 10^{-7}$ |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcuB | $7.786 \cdot 10^{-10}$ | $7.786 \cdot 10^{-10}$ | $-1.284 \cdot 10^{-8}$ | $2.971 \cdot 10^{-12}$ | $2.971 \cdot 10^{-12}$ | $-1.01 \cdot 10^{-7}$ |
| DeltadcuH | $2.847 \cdot 10^{-12}$ | $2.847 \cdot 10^{-12}$ | $3.864 \cdot 10^{-7}$ | $9.77 \cdot 10^{-16}$ | $9.77 \cdot 10^{-16}$ | $2.456 \cdot 10^{-7}$ |
| DeltadcuW | $-1.387 \cdot 10^{-10}$ | $-1.387 \cdot 10^{-10}$ | $3.606 \cdot 10^{-7}$ | $2.282 \cdot 10^{-13}$ | $2.282 \cdot 10^{-13}$ | $3.505 \cdot 10^{-7}$ |
| DeltaucHq3 | $-3.734 \cdot 10^{-7}$ | $-3.734 \cdot 10^{-7}$ | $2.678 \cdot 10^{-7}$ | $1.694 \cdot 10^{-7}$ | $1.694 \cdot 10^{-7}$ | $1.771 \cdot 10^{-7}$ |
| DeltaucdB | $7.166 \cdot 10^{-10}$ | $7.166 \cdot 10^{-10}$ | $8.373 \cdot 10^{-8}$ | $2.49 \cdot 10^{-9}$ | $2.49 \cdot 10^{-9}$ | $-1.205 \cdot 10^{-7}$ |
| DeltaucdH | $-1.781 \cdot 10^{-9}$ | $-1.781 \cdot 10^{-9}$ | $1.684 \cdot 10^{-7}$ | $5.459 \cdot 10^{-11}$ | $5.459 \cdot 10^{-11}$ | $1.832 \cdot 10^{-7}$ |
| DeltaucdW | $-1.556 \cdot 10^{-10}$ | $-1.556 \cdot 10^{-10}$ | $4.499 \cdot 10^{-7}$ | $7.264 \cdot 10^{-10}$ | $7.264 \cdot 10^{-10}$ | $3.166 \cdot 10^{-7}$ |
| DeltaucuB | $1.586 \cdot 10^{-7}$ | $1.586 \cdot 10^{-7}$ | 0 | $1.913 \cdot 10^{-6}$ | $1.913 \cdot 10^{-6}$ | $-1.568 \cdot 10^{-7}$ |
| DeltaucuH | $4.862 \cdot 10^{-9}$ | $4.862 \cdot 10^{-9}$ | $3.702 \cdot 10^{-7}$ | $2.851 \cdot 10^{-9}$ | $2.851 \cdot 10^{-9}$ | $2.455 \cdot 10^{-7}$ |
| DeltaucuW | $-1.91 \cdot 10^{-6}$ | $-1.91 \cdot 10^{-6}$ | $3.664 \cdot 10^{-7}$ | $2.589 \cdot 10^{-6}$ | $2.589 \cdot 10^{-6}$ | $3.09 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $3.989 \cdot 10^{-6}$ | $3.989 \cdot 10^{-6}$ | $2.256 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $1.938 \cdot 10^{-14}$ | $1.938 \cdot 10^{-14}$ | $2.064 \cdot 10^{-7}$ | $2.937 \cdot 10^{-23}$ | $2.937 \cdot 10^{-23}$ | $2.724 \cdot 10^{-7}$ |
| DeltadcdB | $-1.024 \cdot 10^{-24}$ | $-1.024 \cdot 10^{-24}$ | 0 | $7.709 \cdot 10^{-35}$ | $7.709 \cdot 10^{-35}$ | $-2.205 \cdot 10^{-7}$ |
| DeltadcdH | $9.008 \cdot 10^{-26}$ | $9.008 \cdot 10^{-26}$ | $2.553 \cdot 10^{-7}$ | $1.434 \cdot 10^{-35}$ | $1.434 \cdot 10^{-35}$ | $2.092 \cdot 10^{-7}$ |
| DeltadcdW | $1.825 \cdot 10^{-25}$ | $1.825 \cdot 10^{-25}$ | $2.191 \cdot 10^{-7}$ | $1.698 \cdot 10^{-34}$ | $1.698 \cdot 10^{-34}$ | $2.355 \cdot 10^{-7}$ |
| DeltadcuB | $2.599 \cdot 10^{-25}$ | $2.599 \cdot 10^{-25}$ | $-3.848 \cdot 10^{-8}$ | $4.318 \cdot 10^{-34}$ | $4.318 \cdot 10^{-34}$ | $-2.316 \cdot 10^{-7}$ |
| DeltadcuH | $1.766 \cdot 10^{-27}$ | $1.766 \cdot 10^{-27}$ | $1.359 \cdot 10^{-6}$ | $3.425 \cdot 10^{-36}$ | $3.425 \cdot 10^{-36}$ | $2.336 \cdot 10^{-7}$ |
| DeltadcuW | $-6.925 \cdot 10^{-26}$ | $-6.925 \cdot 10^{-26}$ | $2.022 \cdot 10^{-7}$ | $9.195 \cdot 10^{-35}$ | $9.195 \cdot 10^{-35}$ | $2.393 \cdot 10^{-7}$ |
| DeltaucHq3 | $4.147 \cdot 10^{-15}$ | $4.147 \cdot 10^{-15}$ | $1.929 \cdot 10^{-7}$ | $1.344 \cdot 10^{-24}$ | $1.344 \cdot 10^{-24}$ | $2.976 \cdot 10^{-7}$ |
| DeltaucdB | $-1.754 \cdot 10^{-26}$ | $-1.754 \cdot 10^{-26}$ | $7.925 \cdot 10^{-6}$ | $1.062 \cdot 10^{-35}$ | $1.062 \cdot 10^{-35}$ | $-1.13 \cdot 10^{-6}$ |
| DeltaucdH | $1.985 \cdot 10^{-24}$ | $1.985 \cdot 10^{-24}$ | $3.023 \cdot 10^{-7}$ | $6.709 \cdot 10^{-35}$ | $6.709 \cdot 10^{-35}$ | $2.832 \cdot 10^{-7}$ |
| DeltaucdW | $2.947 \cdot 10^{-26}$ | $2.947 \cdot 10^{-26}$ | $-5.09 \cdot 10^{-7}$ | $1.594 \cdot 10^{-35}$ | $1.594 \cdot 10^{-35}$ | $-1.883 \cdot 10^{-7}$ |
| DeltaucuB | $-2.013 \cdot 10^{-26}$ | $-2.013 \cdot 10^{-26}$ | 0 | $1.141 \cdot 10^{-35}$ | $1.141 \cdot 10^{-35}$ | $-2.63 \cdot 10^{-7}$ |
| DeltaucuH | $3.778 \cdot 10^{-28}$ | $3.778 \cdot 10^{-28}$ | $1.323 \cdot 10^{-6}$ | $1.567 \cdot 10^{-37}$ | $1.567 \cdot 10^{-37}$ | $1.914 \cdot 10^{-7}$ |

| | | | | | | |
|-----------|------------------------|------------------------|-----------------------|------------------------|------------------------|----------------------|
| DeltaucuW | $8.068 \cdot 10^{-26}$ | $8.068 \cdot 10^{-26}$ | $1.983 \cdot 10^{-7}$ | $5.645 \cdot 10^{-36}$ | $5.645 \cdot 10^{-36}$ | $2.48 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $2.227 \cdot 10^{-8}$ | $2.227 \cdot 10^{-8}$ | 0 |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $2.327 \cdot 10^{-10}$ | $2.327 \cdot 10^{-10}$ | $-1.289 \cdot 10^{-7}$ | $7.962 \cdot 10^{-19}$ | $7.962 \cdot 10^{-19}$ | $-1.256 \cdot 10^{-8}$ |
| DeltadcdH | $-5.292 \cdot 10^{-21}$ | $-5.292 \cdot 10^{-21}$ | $-1.134 \cdot 10^{-7}$ | $2.281 \cdot 10^{-29}$ | $2.281 \cdot 10^{-29}$ | 0 |
| DeltadcdW | $-2.825 \cdot 10^{-20}$ | $-2.825 \cdot 10^{-20}$ | $-1.77 \cdot 10^{-7}$ | $7.178 \cdot 10^{-28}$ | $7.178 \cdot 10^{-28}$ | 0 |
| DeltadcuH | $-1.718 \cdot 10^{-21}$ | $-1.718 \cdot 10^{-21}$ | $-1.164 \cdot 10^{-7}$ | $4.906 \cdot 10^{-30}$ | $4.906 \cdot 10^{-30}$ | $-2.038 \cdot 10^{-8}$ |
| DeltadcuW | $-6.313 \cdot 10^{-21}$ | $-6.313 \cdot 10^{-21}$ | $-1.584 \cdot 10^{-7}$ | $1.618 \cdot 10^{-28}$ | $1.618 \cdot 10^{-28}$ | 0 |
| DeltaucHq3 | $4.978 \cdot 10^{-11}$ | $4.978 \cdot 10^{-11}$ | $-1.205 \cdot 10^{-7}$ | $3.644 \cdot 10^{-20}$ | $3.644 \cdot 10^{-20}$ | $-2.744 \cdot 10^{-8}$ |
| DeltaucdH | $-6.022 \cdot 10^{-21}$ | $-6.022 \cdot 10^{-21}$ | $-1.162 \cdot 10^{-7}$ | $1.075 \cdot 10^{-30}$ | $1.075 \cdot 10^{-30}$ | 0 |
| DeltaucdW | $-6.69 \cdot 10^{-21}$ | $-6.69 \cdot 10^{-21}$ | $-1.644 \cdot 10^{-7}$ | $3.461 \cdot 10^{-29}$ | $3.461 \cdot 10^{-29}$ | 0 |
| DeltaucuH | $-3.676 \cdot 10^{-22}$ | $-3.676 \cdot 10^{-22}$ | $-1.088 \cdot 10^{-7}$ | $2.245 \cdot 10^{-31}$ | $2.245 \cdot 10^{-31}$ | 0 |
| DeltaucuW | $-1.489 \cdot 10^{-21}$ | $-1.489 \cdot 10^{-21}$ | $-2.015 \cdot 10^{-7}$ | $7.028 \cdot 10^{-30}$ | $7.028 \cdot 10^{-30}$ | $-1.423 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 0.02161 | 0.02161 | $-2.313 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-----------------------|-----------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | -0.001418 | -0.001418 | 0 | $2.838 \cdot 10^{-7}$ | $2.838 \cdot 10^{-7}$ | 0 |
| DeltadcdH | $3.462 \cdot 10^{-8}$ | $3.462 \cdot 10^{-8}$ | 0 | $1.209 \cdot 10^{-11}$ | $1.209 \cdot 10^{-11}$ | 0 |
| DeltadcdW | $1.264 \cdot 10^{-6}$ | $1.264 \cdot 10^{-6}$ | $-7.913 \cdot 10^{-8}$ | $4.834 \cdot 10^{-12}$ | $4.834 \cdot 10^{-12}$ | $-1.241 \cdot 10^{-7}$ |
| DeltadcuH | $6.119 \cdot 10^{-6}$ | $6.119 \cdot 10^{-6}$ | $6.21 \cdot 10^{-7}$ | $1.616 \cdot 10^{-8}$ | $1.616 \cdot 10^{-8}$ | 0 |
| DeltadcuW | $6.464 \cdot 10^{-5}$ | $6.464 \cdot 10^{-5}$ | $-1.547 \cdot 10^{-8}$ | $3.763 \cdot 10^{-7}$ | $3.763 \cdot 10^{-7}$ | 0 |
| DeltaucHq3 | -2.422 | -2.422 | 0 | 0.8281 | 0.8281 | 0 |

| | | | | | | |
|-----------|----------------------|----------------------|------------------------|-----------------------|-----------------------|------------------------|
| DeltaucdH | 0.0001097 | 0.0001097 | $9.118 \cdot 10^{-8}$ | $3.517 \cdot 10^{-5}$ | $3.517 \cdot 10^{-5}$ | 0 |
| DeltaucdW | $8.72 \cdot 10^{-5}$ | $8.72 \cdot 10^{-5}$ | $-1.147 \cdot 10^{-8}$ | 0.0006427 | 0.0006427 | 0 |
| DeltaucuH | 0.01045 | 0.01045 | $6.697 \cdot 10^{-7}$ | 0.04715 | 0.04715 | 0 |
| DeltaucuW | -1.189 | -1.189 | $-8.408 \cdot 10^{-8}$ | 0.02409 | 0.02409 | $-8.301 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 22.26 | 22.26 | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $5.175 \cdot 10^{-7}$ | $5.175 \cdot 10^{-7}$ | $-5.797 \cdot 10^{-8}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|----------|----------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.001194 | 0.001194 | $-2.513 \cdot 10^{-7}$ |

1.27 $H\gamma \rightarrow b\bar{b}$

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcdB | $-2.85 \cdot 10^{-11}$ | $-2.85 \cdot 10^{-11}$ | $3.509 \cdot 10^{-8}$ | $3.938 \cdot 10^{-10}$ | $3.938 \cdot 10^{-10}$ | $-1.016 \cdot 10^{-7}$ |
| DeltadcdH | $-3.661 \cdot 10^{-8}$ | $-3.661 \cdot 10^{-8}$ | $2.458 \cdot 10^{-7}$ | $6.397 \cdot 10^{-13}$ | $6.397 \cdot 10^{-13}$ | $2.501 \cdot 10^{-7}$ |
| DeltadcdW | $4.872 \cdot 10^{-11}$ | $4.872 \cdot 10^{-11}$ | $3.079 \cdot 10^{-7}$ | $3.877 \cdot 10^{-11}$ | $3.877 \cdot 10^{-11}$ | $3.611 \cdot 10^{-7}$ |
| DeltaucdB | $-3.022 \cdot 10^{-7}$ | $-3.022 \cdot 10^{-7}$ | $6.619 \cdot 10^{-8}$ | 0.0001853 | 0.0001853 | $-1.079 \cdot 10^{-7}$ |
| DeltaucdH | $-1.008 \cdot 10^{-5}$ | $-1.008 \cdot 10^{-5}$ | $2.977 \cdot 10^{-7}$ | $3.008 \cdot 10^{-7}$ | $3.008 \cdot 10^{-7}$ | $2.66 \cdot 10^{-7}$ |
| DeltaucdW | $1.668 \cdot 10^{-7}$ | $1.668 \cdot 10^{-7}$ | $2.997 \cdot 10^{-7}$ | $5.646 \cdot 10^{-5}$ | $5.646 \cdot 10^{-5}$ | $3.542 \cdot 10^{-7}$ |

| | | | | | | |
|----|---|---|---|-----------|-----------|-----------------------|
| sm | 0 | 0 | 0 | 0.0002614 | 0.0002614 | $2.678 \cdot 10^{-7}$ |
|----|---|---|---|-----------|-----------|-----------------------|

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

| | interference | | | square | | |
|-----------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuB | $2.153 \cdot 10^{-16}$ | $2.153 \cdot 10^{-16}$ | $9.289 \cdot 10^{-8}$ | $9.946 \cdot 10^{-18}$ | $9.946 \cdot 10^{-18}$ | $-1.106 \cdot 10^{-7}$ |
| DeltadcuH | $-1.073 \cdot 10^{-12}$ | $-1.073 \cdot 10^{-12}$ | $2.796 \cdot 10^{-7}$ | $9.279 \cdot 10^{-21}$ | $9.279 \cdot 10^{-21}$ | $2.479 \cdot 10^{-7}$ |
| DeltadcuW | $1.321 \cdot 10^{-16}$ | $1.321 \cdot 10^{-16}$ | $3.029 \cdot 10^{-7}$ | $2.728 \cdot 10^{-18}$ | $2.728 \cdot 10^{-18}$ | $3.665 \cdot 10^{-7}$ |
| DeltaucB | $4.461 \cdot 10^{-14}$ | $4.461 \cdot 10^{-14}$ | $6.725 \cdot 10^{-8}$ | $3.113 \cdot 10^{-13}$ | $3.113 \cdot 10^{-13}$ | $-1.285 \cdot 10^{-7}$ |
| DeltaucH | $-2.001 \cdot 10^{-10}$ | $-2.001 \cdot 10^{-10}$ | $2.499 \cdot 10^{-7}$ | $3.227 \cdot 10^{-16}$ | $3.227 \cdot 10^{-16}$ | $2.479 \cdot 10^{-7}$ |
| DeltaucW | $2.217 \cdot 10^{-14}$ | $2.217 \cdot 10^{-14}$ | $3.158 \cdot 10^{-7}$ | $1.054 \cdot 10^{-13}$ | $1.054 \cdot 10^{-13}$ | $3.795 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $2.791 \cdot 10^{-5}$ | $2.791 \cdot 10^{-5}$ | $2.15 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-----------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcdB | $-1.299 \cdot 10^{-28}$ | $-1.299 \cdot 10^{-28}$ | $7.701 \cdot 10^{-8}$ | $3.27 \cdot 10^{-28}$ | $3.27 \cdot 10^{-28}$ | $-9.174 \cdot 10^{-8}$ |
| DeltadcdH | $-8.252 \cdot 10^{-21}$ | $-8.252 \cdot 10^{-21}$ | $2.545 \cdot 10^{-7}$ | $1.8 \cdot 10^{-31}$ | $1.8 \cdot 10^{-31}$ | $2.778 \cdot 10^{-7}$ |
| DeltadcdW | $2.766 \cdot 10^{-29}$ | $2.766 \cdot 10^{-29}$ | $3.253 \cdot 10^{-7}$ | $2.53 \cdot 10^{-28}$ | $2.53 \cdot 10^{-28}$ | $3.558 \cdot 10^{-7}$ |
| DeltaucdB | $-1.076 \cdot 10^{-29}$ | $-1.076 \cdot 10^{-29}$ | $-4.648 \cdot 10^{-7}$ | $3.903 \cdot 10^{-29}$ | $3.903 \cdot 10^{-29}$ | $-1.178 \cdot 10^{-6}$ |
| DeltaucdH | $-4.605 \cdot 10^{-21}$ | $-4.605 \cdot 10^{-21}$ | $2.606 \cdot 10^{-7}$ | $2.148 \cdot 10^{-32}$ | $2.148 \cdot 10^{-32}$ | $2.327 \cdot 10^{-7}$ |
| DeltaucdW | $5.939 \cdot 10^{-30}$ | $5.939 \cdot 10^{-30}$ | $-4.546 \cdot 10^{-7}$ | $1.19 \cdot 10^{-29}$ | $1.19 \cdot 10^{-29}$ | $-1.177 \cdot 10^{-6}$ |
| sm | 0 | 0 | 0 | $9.72 \cdot 10^{-11}$ | $9.72 \cdot 10^{-11}$ | $2.469 \cdot 10^{-7}$ |

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

interference

square

| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
|----|------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| sm | 0 | 0 | 0 | $3.41 \cdot 10^{-11}$ | $3.41 \cdot 10^{-11}$ | $2.639 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuB | 0.0001629 | 0.0001629 | $6.14 \cdot 10^{-8}$ | $8.43 \cdot 10^{-7}$ | $8.43 \cdot 10^{-7}$ | $-1.068 \cdot 10^{-7}$ |
| DeltadcuH | $-5.895 \cdot 10^{-5}$ | $-5.895 \cdot 10^{-5}$ | $2.545 \cdot 10^{-7}$ | $1.03 \cdot 10^{-9}$ | $1.03 \cdot 10^{-9}$ | $1.942 \cdot 10^{-7}$ |
| DeltadcuW | 0.0001641 | 0.0001641 | $3.047 \cdot 10^{-7}$ | $1.564 \cdot 10^{-7}$ | $1.564 \cdot 10^{-7}$ | $3.837 \cdot 10^{-7}$ |
| DeltaucB | 0.5077 | 0.5077 | $5.908 \cdot 10^{-8}$ | 1.497 | 1.497 | $-1.336 \cdot 10^{-7}$ |
| DeltaucH | -0.1007 | -0.1007 | $1.986 \cdot 10^{-7}$ | 0.003005 | 0.003005 | $2.329 \cdot 10^{-7}$ |
| DeltaucW | 0.1536 | 0.1536 | $3.256 \cdot 10^{-7}$ | 0.7496 | 0.7496 | $3.468 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.4476 | 0.4476 | $2.681 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.00246 | 0.00246 | $-4.066 \cdot 10^{-8}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|----------|----------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.005813 | 0.005813 | 0 |

1.34 $H\gamma \rightarrow b\bar{b}$

| | interference | | | square | | |
|------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHd | $-2.449 \cdot 10^{-5}$ | $-2.449 \cdot 10^{-5}$ | $3.674 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| DeltadcHq1 | 0.000136 | 0.000136 | $-7.354 \cdot 10^{-8}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| DeltadcHq3 | 0.000136 | 0.000136 | $-7.354 \cdot 10^{-8}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| DeltadcdB | $-9.705 \cdot 10^{-9}$ | $-9.705 \cdot 10^{-9}$ | $2.061 \cdot 10^{-8}$ | $9.004 \cdot 10^{-11}$ | $9.004 \cdot 10^{-11}$ | $3.554 \cdot 10^{-7}$ |
| DeltadcdH | $-2.286 \cdot 10^{-9}$ | $-2.286 \cdot 10^{-9}$ | $-8.313 \cdot 10^{-7}$ | $1.175 \cdot 10^{-11}$ | $1.175 \cdot 10^{-11}$ | 0 |
| DeltadcdW | $-1.758 \cdot 10^{-8}$ | $-1.758 \cdot 10^{-8}$ | $-2.275 \cdot 10^{-7}$ | $2.828 \cdot 10^{-10}$ | $2.828 \cdot 10^{-10}$ | $-1.061 \cdot 10^{-7}$ |
| DeltaucHq1 | 0.205 | 0.205 | $-4.877 \cdot 10^{-8}$ | 0.8767 | 0.8767 | 0 |
| DeltaucHq3 | 0.2323 | 0.2323 | $-8.611 \cdot 10^{-8}$ | 0.9925 | 0.9925 | 0 |
| DeltaucdB | $-1.657 \cdot 10^{-5}$ | $-1.657 \cdot 10^{-5}$ | 0 | 0.0002305 | 0.0002305 | $3.905 \cdot 10^{-7}$ |
| DeltaucdH | $1.119 \cdot 10^{-7}$ | $1.119 \cdot 10^{-7}$ | $2.654 \cdot 10^{-5}$ | $3.417 \cdot 10^{-5}$ | $3.417 \cdot 10^{-5}$ | 0 |
| DeltaucdW | $-3.003 \cdot 10^{-5}$ | $-3.003 \cdot 10^{-5}$ | $-1.998 \cdot 10^{-7}$ | 0.0007562 | 0.0007562 | $-1.058 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.01354 | 0.01354 | $-1.477 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHd | $-1.135 \cdot 10^{-8}$ | $-1.135 \cdot 10^{-8}$ | $3.524 \cdot 10^{-7}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |
| DeltadcHq1 | $6.156 \cdot 10^{-8}$ | $6.156 \cdot 10^{-8}$ | $-6.498 \cdot 10^{-8}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |
| DeltadcHq3 | $6.156 \cdot 10^{-8}$ | $6.156 \cdot 10^{-8}$ | $-6.498 \cdot 10^{-8}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |
| DeltadcdB | $-2.381 \cdot 10^{-15}$ | $-2.381 \cdot 10^{-15}$ | 0 | $9.883 \cdot 10^{-21}$ | $9.883 \cdot 10^{-21}$ | $3.541 \cdot 10^{-7}$ |
| DeltadcdH | $-2.124 \cdot 10^{-14}$ | $-2.124 \cdot 10^{-14}$ | $-9.415 \cdot 10^{-8}$ | $1.607 \cdot 10^{-21}$ | $1.607 \cdot 10^{-21}$ | 0 |
| DeltadcdW | $-4.313 \cdot 10^{-15}$ | $-4.313 \cdot 10^{-15}$ | $-2.087 \cdot 10^{-7}$ | $1.661 \cdot 10^{-20}$ | $1.661 \cdot 10^{-20}$ | $-6.022 \cdot 10^{-8}$ |
| DeltaucHq1 | $2.713 \cdot 10^{-6}$ | $2.713 \cdot 10^{-6}$ | $-7.371 \cdot 10^{-8}$ | $6.234 \cdot 10^{-10}$ | $6.234 \cdot 10^{-10}$ | 0 |
| DeltaucHq3 | $1.148 \cdot 10^{-5}$ | $1.148 \cdot 10^{-5}$ | $-8.712 \cdot 10^{-8}$ | $2.637 \cdot 10^{-9}$ | $2.637 \cdot 10^{-9}$ | 0 |
| DeltaucdB | $-4.44 \cdot 10^{-13}$ | $-4.44 \cdot 10^{-13}$ | $2.252 \cdot 10^{-8}$ | $6.595 \cdot 10^{-17}$ | $6.595 \cdot 10^{-17}$ | $3.488 \cdot 10^{-7}$ |
| DeltaucdH | $-7.735 \cdot 10^{-14}$ | $-7.735 \cdot 10^{-14}$ | $-1.138 \cdot 10^{-6}$ | $4.953 \cdot 10^{-17}$ | $4.953 \cdot 10^{-17}$ | 0 |

| | | | | | | |
|-----------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucdW | $-8.044 \cdot 10^{-13}$ | $-8.044 \cdot 10^{-13}$ | $-2.238 \cdot 10^{-7}$ | $2.164 \cdot 10^{-16}$ | $2.164 \cdot 10^{-16}$ | $-9.242 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 0.006961 | 0.006961 | $-1.006 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|------------------------|------------------------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHu | -2.196 | -2.196 | $-4.553 \cdot 10^{-8}$ | 1.355 | 1.355 | 0 |
| DeltadcHq1 | 0.001205 | 0.001205 | 0 | $4.643 \cdot 10^{-7}$ | $4.643 \cdot 10^{-7}$ | 0 |
| DeltadcHq3 | -0.001205 | -0.001205 | 0 | $4.643 \cdot 10^{-7}$ | $4.643 \cdot 10^{-7}$ | 0 |
| DeltadcuB | $-2.684 \cdot 10^{-5}$ | $-2.684 \cdot 10^{-5}$ | $-4.099 \cdot 10^{-7}$ | $1.746 \cdot 10^{-7}$ | $1.746 \cdot 10^{-7}$ | $4.01 \cdot 10^{-7}$ |
| DeltadcuH | $-6.906 \cdot 10^{-6}$ | $-6.906 \cdot 10^{-6}$ | $-5.503 \cdot 10^{-7}$ | $2.186 \cdot 10^{-8}$ | $2.186 \cdot 10^{-8}$ | 0 |
| DeltadcuW | $3.309 \cdot 10^{-5}$ | $3.309 \cdot 10^{-5}$ | $-6.346 \cdot 10^{-7}$ | $7.148 \cdot 10^{-7}$ | $7.148 \cdot 10^{-7}$ | $-9.793 \cdot 10^{-8}$ |
| DeltaucHq1 | 2.042 | 2.042 | 0 | 1.007 | 1.007 | 0 |
| DeltaucHq3 | -2.058 | -2.058 | $4.86 \cdot 10^{-8}$ | 1.355 | 1.355 | 0 |
| DeltaucB | -0.03121 | -0.03121 | $-4.166 \cdot 10^{-7}$ | 0.6356 | 0.6356 | $3.619 \cdot 10^{-7}$ |
| DeltaucH | -0.0118 | -0.0118 | $-5.086 \cdot 10^{-7}$ | 0.06379 | 0.06379 | $-1.568 \cdot 10^{-8}$ |
| DeltaucW | 0.08304 | 0.08304 | $-6.382 \cdot 10^{-7}$ | 1.671 | 1.671 | $-1.197 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 3.752 | 3.752 | 0 |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHu | $1.195 \cdot 10^{-11}$ | $1.195 \cdot 10^{-11}$ | $3.348 \cdot 10^{-7}$ | $2.153 \cdot 10^{-20}$ | $2.153 \cdot 10^{-20}$ | 0 |
| DeltadcHq1 | $-1.235 \cdot 10^{-10}$ | $-1.235 \cdot 10^{-10}$ | $-1.62 \cdot 10^{-7}$ | $4.703 \cdot 10^{-19}$ | $4.703 \cdot 10^{-19}$ | 0 |
| DeltadcHq3 | $1.235 \cdot 10^{-10}$ | $1.235 \cdot 10^{-10}$ | $-1.62 \cdot 10^{-7}$ | $4.703 \cdot 10^{-19}$ | $4.703 \cdot 10^{-19}$ | 0 |
| DeltadcuB | $1.774 \cdot 10^{-21}$ | $1.774 \cdot 10^{-21}$ | $-3.946 \cdot 10^{-7}$ | $2.736 \cdot 10^{-29}$ | $2.736 \cdot 10^{-29}$ | $3.655 \cdot 10^{-7}$ |
| DeltadcuH | $-1.008 \cdot 10^{-20}$ | $-1.008 \cdot 10^{-20}$ | $-1.984 \cdot 10^{-7}$ | $5.096 \cdot 10^{-30}$ | $5.096 \cdot 10^{-30}$ | 0 |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcuW | $-3.214 \cdot 10^{-21}$ | $-3.214 \cdot 10^{-21}$ | $-6.535 \cdot 10^{-7}$ | $3.498 \cdot 10^{-29}$ | $3.498 \cdot 10^{-29}$ | $-1.143 \cdot 10^{-7}$ |
| DeltaucHq1 | $-9.54 \cdot 10^{-12}$ | $-9.54 \cdot 10^{-12}$ | $-1.677 \cdot 10^{-7}$ | $7.774 \cdot 10^{-21}$ | $7.774 \cdot 10^{-21}$ | 0 |
| DeltaucHq3 | $2.642 \cdot 10^{-11}$ | $2.642 \cdot 10^{-11}$ | $-1.514 \cdot 10^{-7}$ | $2.153 \cdot 10^{-20}$ | $2.153 \cdot 10^{-20}$ | 0 |
| DeltaucB | $3.795 \cdot 10^{-22}$ | $3.795 \cdot 10^{-22}$ | $-4.216 \cdot 10^{-7}$ | $4.879 \cdot 10^{-31}$ | $4.879 \cdot 10^{-31}$ | $3.484 \cdot 10^{-7}$ |
| DeltaucH | $-2.156 \cdot 10^{-21}$ | $-2.156 \cdot 10^{-21}$ | $-2.319 \cdot 10^{-7}$ | $2.332 \cdot 10^{-31}$ | $2.332 \cdot 10^{-31}$ | 0 |
| DeltaucW | $-6.875 \cdot 10^{-22}$ | $-6.875 \cdot 10^{-22}$ | $-6.4 \cdot 10^{-7}$ | $4.109 \cdot 10^{-30}$ | $4.109 \cdot 10^{-30}$ | $-1.217 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.008185 | 0.008185 | $-1.466 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-1.742 \cdot 10^{-11}$ | $-1.742 \cdot 10^{-11}$ | $2.296 \cdot 10^{-7}$ | $6.962 \cdot 10^{-14}$ | $6.962 \cdot 10^{-14}$ | $-1.005 \cdot 10^{-7}$ |
| DeltadcHq1 | $8.635 \cdot 10^{-10}$ | $8.635 \cdot 10^{-10}$ | $-1.042 \cdot 10^{-7}$ | $6.961 \cdot 10^{-14}$ | $6.961 \cdot 10^{-14}$ | $-1.006 \cdot 10^{-7}$ |
| DeltadcHq3 | $-1.958 \cdot 10^{-9}$ | $-1.958 \cdot 10^{-9}$ | $-5.106 \cdot 10^{-8}$ | $4.082 \cdot 10^{-13}$ | $4.082 \cdot 10^{-13}$ | $-9.8 \cdot 10^{-8}$ |
| DeltadcdB | $7.217 \cdot 10^{-14}$ | $7.217 \cdot 10^{-14}$ | $1.247 \cdot 10^{-7}$ | $4.447 \cdot 10^{-19}$ | $4.447 \cdot 10^{-19}$ | $2.923 \cdot 10^{-7}$ |
| DeltadcdH | $3.14 \cdot 10^{-13}$ | $3.14 \cdot 10^{-13}$ | $-2.867 \cdot 10^{-7}$ | $6.287 \cdot 10^{-17}$ | $6.287 \cdot 10^{-17}$ | 0 |
| DeltadcdW | $-4.869 \cdot 10^{-12}$ | $-4.869 \cdot 10^{-12}$ | $-2.259 \cdot 10^{-7}$ | $3.118 \cdot 10^{-16}$ | $3.118 \cdot 10^{-16}$ | $-1.283 \cdot 10^{-7}$ |
| DeltadcuH | $1.388 \cdot 10^{-9}$ | $1.388 \cdot 10^{-9}$ | 0 | $6.699 \cdot 10^{-14}$ | $6.699 \cdot 10^{-14}$ | $-1.493 \cdot 10^{-8}$ |
| DeltadcuW | $-9.5 \cdot 10^{-10}$ | $-9.5 \cdot 10^{-10}$ | $-9.473 \cdot 10^{-8}$ | $5.407 \cdot 10^{-13}$ | $5.407 \cdot 10^{-13}$ | 0 |
| DeltaucHq1 | $2.562 \cdot 10^{-6}$ | $2.562 \cdot 10^{-6}$ | $-7.806 \cdot 10^{-8}$ | $2.722 \cdot 10^{-7}$ | $2.722 \cdot 10^{-7}$ | $-7.348 \cdot 10^{-8}$ |
| DeltaucHq3 | $-3.345 \cdot 10^{-6}$ | $-3.345 \cdot 10^{-6}$ | $-5.978 \cdot 10^{-8}$ | $1.191 \cdot 10^{-6}$ | $1.191 \cdot 10^{-6}$ | $-8.396 \cdot 10^{-8}$ |
| DeltaucdB | $8.174 \cdot 10^{-11}$ | $8.174 \cdot 10^{-11}$ | $1.223 \cdot 10^{-8}$ | $6.016 \cdot 10^{-12}$ | $6.016 \cdot 10^{-12}$ | $3.491 \cdot 10^{-7}$ |
| DeltaucdH | $8.209 \cdot 10^{-10}$ | $8.209 \cdot 10^{-10}$ | $-7.309 \cdot 10^{-8}$ | $3.081 \cdot 10^{-11}$ | $3.081 \cdot 10^{-11}$ | $3.245 \cdot 10^{-8}$ |
| DeltaucdW | $1.192 \cdot 10^{-9}$ | $1.192 \cdot 10^{-9}$ | $-3.355 \cdot 10^{-7}$ | $1.973 \cdot 10^{-9}$ | $1.973 \cdot 10^{-9}$ | $-5.069 \cdot 10^{-8}$ |
| DeltaucuH | $2.371 \cdot 10^{-6}$ | $2.371 \cdot 10^{-6}$ | $-4.218 \cdot 10^{-8}$ | $1.955 \cdot 10^{-7}$ | $1.955 \cdot 10^{-7}$ | $-5.116 \cdot 10^{-8}$ |
| DeltaucuW | $-4.631 \cdot 10^{-6}$ | $-4.631 \cdot 10^{-6}$ | $-2.159 \cdot 10^{-7}$ | $5.114 \cdot 10^{-6}$ | $5.114 \cdot 10^{-6}$ | 0 |
| sm | 0 | 0 | 0 | $1.41 \cdot 10^{-5}$ | $1.41 \cdot 10^{-5}$ | $-2.836 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHu | $4.362 \cdot 10^{-12}$ | $4.362 \cdot 10^{-12}$ | $2.292 \cdot 10^{-7}$ | $4.068 \cdot 10^{-16}$ | $4.068 \cdot 10^{-16}$ | $-1.229 \cdot 10^{-7}$ |
| DeltadcHq1 | $-2.657 \cdot 10^{-13}$ | $-2.657 \cdot 10^{-13}$ | $-2.258 \cdot 10^{-7}$ | $1.167 \cdot 10^{-20}$ | $1.167 \cdot 10^{-20}$ | $-1.714 \cdot 10^{-7}$ |
| DeltadcHq3 | $2.385 \cdot 10^{-13}$ | $2.385 \cdot 10^{-13}$ | $-2.935 \cdot 10^{-7}$ | $9.656 \cdot 10^{-20}$ | $9.656 \cdot 10^{-20}$ | $-1.139 \cdot 10^{-7}$ |
| DeltadcdH | $3.531 \cdot 10^{-20}$ | $3.531 \cdot 10^{-20}$ | $-1.133 \cdot 10^{-7}$ | $5.032 \cdot 10^{-34}$ | $5.032 \cdot 10^{-34}$ | $-1.987 \cdot 10^{-8}$ |
| DeltadcdW | $-1.298 \cdot 10^{-19}$ | $-1.298 \cdot 10^{-19}$ | $-1.541 \cdot 10^{-7}$ | $3.735 \cdot 10^{-32}$ | $3.735 \cdot 10^{-32}$ | 0 |
| DeltadcuB | $-1.937 \cdot 10^{-18}$ | $-1.937 \cdot 10^{-18}$ | $1.032 \cdot 10^{-7}$ | $2.435 \cdot 10^{-26}$ | $2.435 \cdot 10^{-26}$ | $3.285 \cdot 10^{-7}$ |
| DeltadcuH | $-1.842 \cdot 10^{-18}$ | $-1.842 \cdot 10^{-18}$ | 0 | $4.28 \cdot 10^{-25}$ | $4.28 \cdot 10^{-25}$ | 0 |
| DeltadcuW | $2.87 \cdot 10^{-17}$ | $2.87 \cdot 10^{-17}$ | $-1.394 \cdot 10^{-7}$ | $1.449 \cdot 10^{-23}$ | $1.449 \cdot 10^{-23}$ | $-1.38 \cdot 10^{-7}$ |
| DeltaucHq1 | $-1.739 \cdot 10^{-11}$ | $-1.739 \cdot 10^{-11}$ | $-1.725 \cdot 10^{-7}$ | $6.304 \cdot 10^{-16}$ | $6.304 \cdot 10^{-16}$ | $-7.932 \cdot 10^{-8}$ |
| DeltaucHq3 | $4.448 \cdot 10^{-11}$ | $4.448 \cdot 10^{-11}$ | $-2.698 \cdot 10^{-7}$ | $3.358 \cdot 10^{-15}$ | $3.358 \cdot 10^{-15}$ | $-1.191 \cdot 10^{-7}$ |
| DeltaucdH | $1.016 \cdot 10^{-17}$ | $1.016 \cdot 10^{-17}$ | $-9.841 \cdot 10^{-8}$ | $8.818 \cdot 10^{-30}$ | $8.818 \cdot 10^{-30}$ | $-2.268 \cdot 10^{-8}$ |
| DeltaucdW | $-1.13 \cdot 10^{-17}$ | $-1.13 \cdot 10^{-17}$ | $-1.77 \cdot 10^{-7}$ | $1.361 \cdot 10^{-27}$ | $1.361 \cdot 10^{-27}$ | 0 |
| DeltaucuB | $-5.527 \cdot 10^{-16}$ | $-5.527 \cdot 10^{-16}$ | $7.238 \cdot 10^{-8}$ | $1.014 \cdot 10^{-21}$ | $1.014 \cdot 10^{-21}$ | $2.958 \cdot 10^{-7}$ |
| DeltaucuH | $-3.434 \cdot 10^{-16}$ | $-3.434 \cdot 10^{-16}$ | $-2.912 \cdot 10^{-8}$ | $1.489 \cdot 10^{-20}$ | $1.489 \cdot 10^{-20}$ | $6.718 \cdot 10^{-8}$ |
| DeltaucuW | $2.311 \cdot 10^{-15}$ | $2.311 \cdot 10^{-15}$ | 0 | $3.394 \cdot 10^{-19}$ | $3.394 \cdot 10^{-19}$ | $-1.178 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $6.692 \cdot 10^{-7}$ | $6.692 \cdot 10^{-7}$ | $-2.242 \cdot 10^{-7}$ |

1.40 $W^+W^- \rightarrow Hdd\bar{d}$

| | interference | | | square | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHd | $-1.088 \cdot 10^{-17}$ | $-1.088 \cdot 10^{-17}$ | $2.757 \cdot 10^{-7}$ | $5.692 \cdot 10^{-26}$ | $5.692 \cdot 10^{-26}$ | $-8.784 \cdot 10^{-8}$ |
| DeltadcHq1 | $2.6 \cdot 10^{-17}$ | $2.6 \cdot 10^{-17}$ | $3.846 \cdot 10^{-8}$ | $5.682 \cdot 10^{-26}$ | $5.682 \cdot 10^{-26}$ | $-7.04 \cdot 10^{-8}$ |
| DeltadcHq3 | $2.991 \cdot 10^{-16}$ | $2.991 \cdot 10^{-16}$ | $-3.009 \cdot 10^{-7}$ | $7.151 \cdot 10^{-25}$ | $7.151 \cdot 10^{-25}$ | $-1.119 \cdot 10^{-7}$ |
| DeltadcdB | $6.559 \cdot 10^{-26}$ | $6.559 \cdot 10^{-26}$ | $7.624 \cdot 10^{-8}$ | $3.026 \cdot 10^{-36}$ | $3.026 \cdot 10^{-36}$ | $3.635 \cdot 10^{-7}$ |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdH | $-5.984 \cdot 10^{-26}$ | $-5.984 \cdot 10^{-26}$ | $-1.337 \cdot 10^{-7}$ | $2.418 \cdot 10^{-35}$ | $2.418 \cdot 10^{-35}$ | $4.135 \cdot 10^{-8}$ |
| DeltadcdW | $-3.111 \cdot 10^{-24}$ | $-3.111 \cdot 10^{-24}$ | $-1.607 \cdot 10^{-7}$ | $9.827 \cdot 10^{-34}$ | $9.827 \cdot 10^{-34}$ | $-1.119 \cdot 10^{-7}$ |
| DeltadcuH | $1.902 \cdot 10^{-26}$ | $1.902 \cdot 10^{-26}$ | $-1.577 \cdot 10^{-7}$ | $2.098 \cdot 10^{-46}$ | $2.098 \cdot 10^{-46}$ | 0 |
| DeltadcuW | $-8.247 \cdot 10^{-26}$ | $-8.247 \cdot 10^{-26}$ | $-1.698 \cdot 10^{-7}$ | $5.356 \cdot 10^{-44}$ | $5.356 \cdot 10^{-44}$ | $1.867 \cdot 10^{-8}$ |
| DeltaucHq1 | $4.387 \cdot 10^{-17}$ | $4.387 \cdot 10^{-17}$ | $-1.368 \cdot 10^{-7}$ | $6.935 \cdot 10^{-27}$ | $6.935 \cdot 10^{-27}$ | $-8.652 \cdot 10^{-8}$ |
| DeltaucHq3 | $6.399 \cdot 10^{-17}$ | $6.399 \cdot 10^{-17}$ | $-2.656 \cdot 10^{-7}$ | $3.273 \cdot 10^{-26}$ | $3.273 \cdot 10^{-26}$ | $-1.222 \cdot 10^{-7}$ |
| DeltaucdB | $1.218 \cdot 10^{-26}$ | $1.218 \cdot 10^{-26}$ | $8.951 \cdot 10^{-6}$ | $1.102 \cdot 10^{-37}$ | $1.101 \cdot 10^{-37}$ | 0.0003818 |
| DeltaucdH | $-3.467 \cdot 10^{-26}$ | $-3.467 \cdot 10^{-26}$ | $-1.154 \cdot 10^{-7}$ | $1.086 \cdot 10^{-36}$ | $1.086 \cdot 10^{-36}$ | 0 |
| DeltaucdW | $-2.051 \cdot 10^{-25}$ | $-2.051 \cdot 10^{-25}$ | $-2.926 \cdot 10^{-7}$ | $3.443 \cdot 10^{-35}$ | $3.443 \cdot 10^{-35}$ | $-1.133 \cdot 10^{-6}$ |
| DeltaucuH | $4.07 \cdot 10^{-27}$ | $4.07 \cdot 10^{-27}$ | $-1.474 \cdot 10^{-7}$ | $9.6 \cdot 10^{-48}$ | $9.6 \cdot 10^{-48}$ | $-2.083 \cdot 10^{-8}$ |
| DeltaucuW | $-1.4 \cdot 10^{-26}$ | $-1.4 \cdot 10^{-26}$ | $-2.142 \cdot 10^{-7}$ | $2.348 \cdot 10^{-45}$ | $2.348 \cdot 10^{-45}$ | 0 |
| sm | 0 | 0 | 0 | $8.918 \cdot 10^{-7}$ | $8.918 \cdot 10^{-7}$ | $-2.355 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHu | $-1.209 \cdot 10^{-5}$ | $-1.209 \cdot 10^{-5}$ | 0 | $8.315 \cdot 10^{-6}$ | $8.315 \cdot 10^{-6}$ | 0 |
| DeltadcHq1 | $6.105 \cdot 10^{-10}$ | $6.105 \cdot 10^{-10}$ | $-1.638 \cdot 10^{-7}$ | $2.85 \cdot 10^{-12}$ | $2.85 \cdot 10^{-12}$ | 0 |
| DeltadcHq3 | $8.379 \cdot 10^{-9}$ | $8.379 \cdot 10^{-9}$ | $-5.967 \cdot 10^{-8}$ | $5.899 \cdot 10^{-12}$ | $5.899 \cdot 10^{-12}$ | 0 |
| DeltadcdH | $5.241 \cdot 10^{-14}$ | $5.241 \cdot 10^{-14}$ | $-1.145 \cdot 10^{-7}$ | $2.09 \cdot 10^{-21}$ | $2.09 \cdot 10^{-21}$ | $-4.784 \cdot 10^{-8}$ |
| DeltadcdW | $-1.566 \cdot 10^{-12}$ | $-1.566 \cdot 10^{-12}$ | 0 | $6.626 \cdot 10^{-18}$ | $6.626 \cdot 10^{-18}$ | 0 |
| DeltadcuB | $-1.988 \cdot 10^{-10}$ | $-1.988 \cdot 10^{-10}$ | $-5.029 \cdot 10^{-8}$ | $8.352 \cdot 10^{-15}$ | $8.352 \cdot 10^{-15}$ | $3.592 \cdot 10^{-7}$ |
| DeltadcuH | $1.67 \cdot 10^{-10}$ | $1.67 \cdot 10^{-10}$ | $5.987 \cdot 10^{-8}$ | $1.135 \cdot 10^{-13}$ | $1.135 \cdot 10^{-13}$ | 0 |
| DeltadcuW | $-6.267 \cdot 10^{-10}$ | $-6.267 \cdot 10^{-10}$ | $-1.277 \cdot 10^{-7}$ | $1.02 \cdot 10^{-11}$ | $1.02 \cdot 10^{-11}$ | 0 |
| DeltaucHq1 | $4.891 \cdot 10^{-7}$ | $4.891 \cdot 10^{-7}$ | $-8.178 \cdot 10^{-8}$ | $1.777 \cdot 10^{-6}$ | $1.777 \cdot 10^{-6}$ | 0 |
| DeltaucHq3 | $1.431 \cdot 10^{-5}$ | $1.431 \cdot 10^{-5}$ | $-6.987 \cdot 10^{-8}$ | $1.721 \cdot 10^{-5}$ | $1.721 \cdot 10^{-5}$ | 0 |
| DeltaucdH | $2.812 \cdot 10^{-10}$ | $2.812 \cdot 10^{-10}$ | $-7.112 \cdot 10^{-8}$ | $4.017 \cdot 10^{-14}$ | $4.017 \cdot 10^{-14}$ | 0 |
| DeltaucdW | $-3.054 \cdot 10^{-9}$ | $-3.054 \cdot 10^{-9}$ | $-6.549 \cdot 10^{-8}$ | $5.372 \cdot 10^{-12}$ | $5.372 \cdot 10^{-12}$ | $1.862 \cdot 10^{-8}$ |

| | | | | | | |
|-----------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|
| DeltaucuB | $1.902 \cdot 10^{-7}$ | $1.902 \cdot 10^{-7}$ | $2.103 \cdot 10^{-7}$ | $4.9 \cdot 10^{-8}$ | $4.9 \cdot 10^{-8}$ | $3.47 \cdot 10^{-7}$ |
| DeltaucuH | $2.853 \cdot 10^{-7}$ | $2.853 \cdot 10^{-7}$ | $7.01 \cdot 10^{-8}$ | $3.311 \cdot 10^{-7}$ | $3.311 \cdot 10^{-7}$ | $3.02 \cdot 10^{-8}$ |
| DeltaucuW | $8.05 \cdot 10^{-6}$ | $8.05 \cdot 10^{-6}$ | $-1.739 \cdot 10^{-7}$ | $5.137 \cdot 10^{-5}$ | $5.137 \cdot 10^{-5}$ | $-1.947 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 0.0001508 | 0.0001508 | $-2.652 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|-------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 49.04 | 49.04 | $-2.651 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|--------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.1884 | 0.1884 | $5.307 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | $1.434 \cdot 10^{-6}$ | $1.434 \cdot 10^{-6}$ | $7.67 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-----------------------|-----------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $1.373 \cdot 10^{-6}$ | $1.373 \cdot 10^{-6}$ | $-2.185 \cdot 10^{-7}$ | $2.399 \cdot 10^{-11}$ | $2.399 \cdot 10^{-11}$ | $-2.084 \cdot 10^{-7}$ |

| | | | | | | |
|-------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdW | $-1.151 \cdot 10^{-9}$ | $-1.151 \cdot 10^{-9}$ | $-1.738 \cdot 10^{-7}$ | $1.673 \cdot 10^{-12}$ | $1.673 \cdot 10^{-12}$ | $-1.196 \cdot 10^{-7}$ |
| Deltadcqq11 | $8.05 \cdot 10^{-5}$ | $8.05 \cdot 10^{-5}$ | $-1.118 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | 0 |
| Deltadcqq3 | 0.0002141 | 0.0002141 | $-9.343 \cdot 10^{-8}$ | $5.831 \cdot 10^{-7}$ | $5.831 \cdot 10^{-7}$ | 0 |
| Deltadcqq31 | $-8.05 \cdot 10^{-5}$ | $-8.05 \cdot 10^{-5}$ | $-1.118 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | 0 |
| DeltadcuW | $-9.455 \cdot 10^{-6}$ | $-9.455 \cdot 10^{-6}$ | $-1.587 \cdot 10^{-7}$ | $5.844 \cdot 10^{-10}$ | $5.844 \cdot 10^{-10}$ | $-1.027 \cdot 10^{-7}$ |
| DeltaucHq3 | 0.002345 | 0.002345 | $-2.132 \cdot 10^{-7}$ | $7 \cdot 10^{-5}$ | $7 \cdot 10^{-5}$ | $-2.143 \cdot 10^{-7}$ |
| DeltaucdW | $-9.456 \cdot 10^{-6}$ | $-9.456 \cdot 10^{-6}$ | $-1.692 \cdot 10^{-7}$ | $1.462 \cdot 10^{-7}$ | $1.462 \cdot 10^{-7}$ | $-1.368 \cdot 10^{-7}$ |
| Deltaucqq11 | 0.1375 | 0.1375 | $-1.454 \cdot 10^{-7}$ | 0.9598 | 0.9598 | 0 |
| Deltaucqq3 | 0.3656 | 0.3656 | $-1.094 \cdot 10^{-7}$ | 1.701 | 1.701 | 0 |
| Deltaucqq31 | -0.06094 | -0.06094 | $-1.149 \cdot 10^{-7}$ | 0.4254 | 0.4254 | 0 |
| DeltaucuW | -0.002962 | -0.002962 | $-1.35 \cdot 10^{-7}$ | 0.007404 | 0.007404 | $-1.081 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.001691 | 0.001691 | $-2.366 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|-------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 67.25 | 67.25 | $7.435 \cdot 10^{-8}$ |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.03481 | 0.03481 | $3.448 \cdot 10^{-7}$ |

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 |
|----|------|------|---------------|-----------|-----------|---------------|
| sm | 0 | 0 | 0 | 0.0005637 | 0.0005637 | 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 |
| sm | 0 | 0 | 0 | 0.005878 | 0.005878 | 0 |

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

| | interference | | | square | | |
|-----------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|-----------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltadcdB | $2.641 \cdot 10^{-10}$ | $2.641 \cdot 10^{-10}$ | $3.029 \cdot 10^{-7}$ | $3.885 \cdot 10^{-13}$ | $3.885 \cdot 10^{-13}$ | $1.545 \cdot 10^{-7}$ |
| DeltadcdW | $-5.927 \cdot 10^{-11}$ | $-5.927 \cdot 10^{-11}$ | $5.568 \cdot 10^{-7}$ | $1.184 \cdot 10^{-13}$ | $1.184 \cdot 10^{-13}$ | $5.913 \cdot 10^{-7}$ |
| DeltaucdB | $5.22 \cdot 10^{-7}$ | $5.22 \cdot 10^{-7}$ | $3.257 \cdot 10^{-7}$ | $1.133 \cdot 10^{-6}$ | $1.133 \cdot 10^{-6}$ | $1.764 \cdot 10^{-7}$ |
| DeltaucdW | $-2.882 \cdot 10^{-7}$ | $-2.882 \cdot 10^{-7}$ | $5.552 \cdot 10^{-7}$ | $3.454 \cdot 10^{-7}$ | $3.454 \cdot 10^{-7}$ | $6.08 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | $7.962 \cdot 10^{-5}$ | $7.962 \cdot 10^{-5}$ | $4.898 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHd | $-2.319 \cdot 10^{-9}$ | $-2.319 \cdot 10^{-9}$ | $3.882 \cdot 10^{-6}$ | $1.01 \cdot 10^{-12}$ | $1.01 \cdot 10^{-12}$ | $-9.901 \cdot 10^{-8}$ |
| Deltaced | $3.358 \cdot 10^{-6}$ | $3.358 \cdot 10^{-6}$ | $3.574 \cdot 10^{-7}$ | $2.261 \cdot 10^{-8}$ | $2.261 \cdot 10^{-8}$ | 0 |
| Deltacld | $2.456 \cdot 10^{-6}$ | $2.456 \cdot 10^{-6}$ | $3.258 \cdot 10^{-7}$ | $3.328 \cdot 10^{-8}$ | $3.328 \cdot 10^{-8}$ | 0 |
| DeltadcHq1 | $4.331 \cdot 10^{-8}$ | $4.331 \cdot 10^{-8}$ | $-2.078 \cdot 10^{-7}$ | $9.622 \cdot 10^{-13}$ | $9.622 \cdot 10^{-13}$ | $8.314 \cdot 10^{-8}$ |
| DeltadcHq3 | $4.331 \cdot 10^{-8}$ | $4.331 \cdot 10^{-8}$ | $-2.078 \cdot 10^{-7}$ | $9.622 \cdot 10^{-13}$ | $9.622 \cdot 10^{-13}$ | $8.314 \cdot 10^{-8}$ |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdB | $3.336 \cdot 10^{-10}$ | $3.336 \cdot 10^{-10}$ | $2.098 \cdot 10^{-7}$ | $6.154 \cdot 10^{-13}$ | $6.154 \cdot 10^{-13}$ | $3.575 \cdot 10^{-7}$ |
| DeltadcdH | $-1.275 \cdot 10^{-15}$ | $-1.275 \cdot 10^{-15}$ | 0 | $2.23 \cdot 10^{-20}$ | $2.23 \cdot 10^{-20}$ | 0 |
| DeltadcdW | $-6.678 \cdot 10^{-10}$ | $-6.678 \cdot 10^{-10}$ | $-1.797 \cdot 10^{-7}$ | $3.089 \cdot 10^{-13}$ | $3.089 \cdot 10^{-13}$ | $-9.712 \cdot 10^{-8}$ |
| Deltadcledq | $-4.11 \cdot 10^{-14}$ | $-4.11 \cdot 10^{-14}$ | 0 | $1.176 \cdot 10^{-17}$ | $1.176 \cdot 10^{-17}$ | 0 |
| Deltadclq1 | $7.498 \cdot 10^{-6}$ | $7.498 \cdot 10^{-6}$ | $-1.601 \cdot 10^{-7}$ | $2.275 \cdot 10^{-8}$ | $2.275 \cdot 10^{-8}$ | 0 |
| Deltadclq3 | $7.451 \cdot 10^{-6}$ | $7.451 \cdot 10^{-6}$ | $-1.61 \cdot 10^{-7}$ | $2.261 \cdot 10^{-8}$ | $2.261 \cdot 10^{-8}$ | 0 |
| Deltadcqe | $-2.518 \cdot 10^{-6}$ | $-2.518 \cdot 10^{-6}$ | $3.574 \cdot 10^{-7}$ | $3.328 \cdot 10^{-8}$ | $3.328 \cdot 10^{-8}$ | 0 |
| Deltauchq1 | $7.372 \cdot 10^{-5}$ | $7.372 \cdot 10^{-5}$ | $-2.035 \cdot 10^{-7}$ | $2.807 \cdot 10^{-6}$ | $2.807 \cdot 10^{-6}$ | $1.069 \cdot 10^{-7}$ |
| Deltauchq3 | $7.398 \cdot 10^{-5}$ | $7.398 \cdot 10^{-5}$ | $-2.027 \cdot 10^{-7}$ | $2.808 \cdot 10^{-6}$ | $2.808 \cdot 10^{-6}$ | $7.124 \cdot 10^{-8}$ |
| DeltaucdB | $5.675 \cdot 10^{-7}$ | $5.675 \cdot 10^{-7}$ | $2.114 \cdot 10^{-7}$ | $1.795 \cdot 10^{-6}$ | $1.795 \cdot 10^{-6}$ | $3.343 \cdot 10^{-7}$ |
| DeltaucdH | $-2.178 \cdot 10^{-12}$ | $-2.178 \cdot 10^{-12}$ | 0 | $6.505 \cdot 10^{-14}$ | $6.505 \cdot 10^{-14}$ | 0 |
| DeltaucdW | $-8.148 \cdot 10^{-7}$ | $-8.148 \cdot 10^{-7}$ | $-1.105 \cdot 10^{-7}$ | $1.187 \cdot 10^{-6}$ | $1.187 \cdot 10^{-6}$ | $-8.426 \cdot 10^{-8}$ |
| Deltaucledq | $-7.02 \cdot 10^{-11}$ | $-7.02 \cdot 10^{-11}$ | 0 | $3.43 \cdot 10^{-11}$ | $3.43 \cdot 10^{-11}$ | 0 |
| Deltauclq1 | 0.01281 | 0.01281 | $-1.562 \cdot 10^{-7}$ | 0.0664 | 0.0664 | 0 |
| Deltauclq3 | 0.01273 | 0.01273 | $-1.571 \cdot 10^{-7}$ | 0.06598 | 0.06598 | 0 |
| Deltaucqe | -0.004301 | -0.004301 | $3.487 \cdot 10^{-7}$ | 0.0971 | 0.0971 | 0 |
| sm | 0 | 0 | 0 | 0.002047 | 0.002047 | $-1.465 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-6 \cdot 10^{-8}$ | $-6 \cdot 10^{-8}$ | $3.5 \cdot 10^{-7}$ | $6.733 \cdot 10^{-12}$ | $6.733 \cdot 10^{-12}$ | 0 |
| Deltacld | $2.336 \cdot 10^{-7}$ | $2.336 \cdot 10^{-7}$ | $3.853 \cdot 10^{-7}$ | $3.137 \cdot 10^{-9}$ | $3.137 \cdot 10^{-9}$ | 0 |
| DeltadcHq1 | $1.849 \cdot 10^{-9}$ | $1.849 \cdot 10^{-9}$ | $-1.082 \cdot 10^{-7}$ | $3.829 \cdot 10^{-14}$ | $3.829 \cdot 10^{-14}$ | 0 |
| DeltadcHq3 | $1.849 \cdot 10^{-9}$ | $1.849 \cdot 10^{-9}$ | $-1.082 \cdot 10^{-7}$ | $3.829 \cdot 10^{-14}$ | $3.829 \cdot 10^{-14}$ | 0 |
| DeltadcdB | $5.738 \cdot 10^{-11}$ | $5.738 \cdot 10^{-11}$ | $8.191 \cdot 10^{-7}$ | $3.289 \cdot 10^{-14}$ | $3.289 \cdot 10^{-14}$ | $3.648 \cdot 10^{-7}$ |
| DeltadcdW | $-6.476 \cdot 10^{-10}$ | $-6.476 \cdot 10^{-10}$ | $-1.544 \cdot 10^{-7}$ | $3.547 \cdot 10^{-13}$ | $3.547 \cdot 10^{-13}$ | $-1.128 \cdot 10^{-7}$ |
| Deltadclq1 | $-2.205 \cdot 10^{-7}$ | $-2.205 \cdot 10^{-7}$ | $-4.534 \cdot 10^{-8}$ | $5.447 \cdot 10^{-10}$ | $5.447 \cdot 10^{-10}$ | 0 |

| | | | | | | |
|------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|
| Deltadclq3 | $3.104 \cdot 10^{-5}$ | $3.104 \cdot 10^{-5}$ | $-6.443 \cdot 10^{-8}$ | $7.662 \cdot 10^{-8}$ | $7.662 \cdot 10^{-8}$ | 0 |
| DeltaucHq1 | 0.0004446 | 0.0004446 | $-6.747 \cdot 10^{-8}$ | $1.572 \cdot 10^{-5}$ | $1.572 \cdot 10^{-5}$ | 0 |
| DeltaucHq3 | $3.159 \cdot 10^{-6}$ | $3.159 \cdot 10^{-6}$ | $-6.332 \cdot 10^{-8}$ | $1.117 \cdot 10^{-7}$ | $1.117 \cdot 10^{-7}$ | 0 |
| DeltaucdB | $-7.742 \cdot 10^{-7}$ | $-7.742 \cdot 10^{-7}$ | $9.042 \cdot 10^{-8}$ | $2.06 \cdot 10^{-7}$ | $2.06 \cdot 10^{-7}$ | $3.398 \cdot 10^{-7}$ |
| DeltaucdW | $-1.402 \cdot 10^{-6}$ | $-1.402 \cdot 10^{-6}$ | $-1.426 \cdot 10^{-7}$ | $6.759 \cdot 10^{-7}$ | $6.759 \cdot 10^{-7}$ | $-1.036 \cdot 10^{-7}$ |
| Deltauclq1 | -0.0003767 | -0.0003767 | $-5.309 \cdot 10^{-8}$ | 0.001589 | 0.001589 | 0 |
| Deltauclq3 | 0.05303 | 0.05303 | $-5.658 \cdot 10^{-8}$ | 0.2236 | 0.2236 | 0 |
| sm | 0 | 0 | 0 | 0.002172 | 0.002172 | $-1.381 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | 0.0001703 | 0.0001703 | $3.523 \cdot 10^{-7}$ | $6.678 \cdot 10^{-7}$ | $6.678 \cdot 10^{-7}$ | 0 |
| Delta1dcqd8 | -0.001441 | -0.001441 | 0 | $1.805 \cdot 10^{-7}$ | $1.805 \cdot 10^{-7}$ | 0 |
| Delta1ucqd1 | 0.0504 | 0.0504 | $3.571 \cdot 10^{-7}$ | 2.37 | 2.37 | 0 |
| Delta1ucqd8 | -18.55 | -18.55 | 0 | 0.433 | 0.433 | 0 |
| Delta2cqd1 | $2.951 \cdot 10^{-5}$ | $2.951 \cdot 10^{-5}$ | $3.389 \cdot 10^{-7}$ | $8.123 \cdot 10^{-7}$ | $8.123 \cdot 10^{-7}$ | 0 |
| Delta2cqd8 | -0.01086 | -0.01086 | 0 | $1.484 \cdot 10^{-7}$ | $1.484 \cdot 10^{-7}$ | 0 |
| DeltacHd | $1.82 \cdot 10^{-6}$ | $1.82 \cdot 10^{-6}$ | $3.846 \cdot 10^{-7}$ | $1.522 \cdot 10^{-10}$ | $1.522 \cdot 10^{-10}$ | $-6.57 \cdot 10^{-8}$ |
| Deltacdd | -0.0004884 | -0.0004884 | $2.047 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |
| Deltacdd1 | -0.01797 | -0.01797 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| DeltadcHq1 | $-1.059 \cdot 10^{-5}$ | $-1.059 \cdot 10^{-5}$ | $-9.442 \cdot 10^{-8}$ | $7.75 \cdot 10^{-11}$ | $7.75 \cdot 10^{-11}$ | $-7.742 \cdot 10^{-8}$ |
| DeltadcHq3 | $-1.059 \cdot 10^{-5}$ | $-1.059 \cdot 10^{-5}$ | $-9.442 \cdot 10^{-8}$ | $7.75 \cdot 10^{-11}$ | $7.75 \cdot 10^{-11}$ | $-7.742 \cdot 10^{-8}$ |
| DeltadcdB | $1.467 \cdot 10^{-9}$ | $1.467 \cdot 10^{-9}$ | 0 | $2.804 \cdot 10^{-12}$ | $2.804 \cdot 10^{-12}$ | $3.567 \cdot 10^{-7}$ |
| DeltadcdG | $-8.989 \cdot 10^{-7}$ | $-8.989 \cdot 10^{-7}$ | 0 | $7.802 \cdot 10^{-10}$ | $7.802 \cdot 10^{-10}$ | 0 |
| DeltadcdH | $3.861 \cdot 10^{-7}$ | $3.861 \cdot 10^{-7}$ | 0 | $8.022 \cdot 10^{-16}$ | $8.022 \cdot 10^{-16}$ | 0 |
| DeltadcdW | $-3.347 \cdot 10^{-8}$ | $-3.347 \cdot 10^{-8}$ | $-8.963 \cdot 10^{-8}$ | $5.76 \cdot 10^{-13}$ | $5.76 \cdot 10^{-13}$ | $-1.042 \cdot 10^{-7}$ |
| Deltadcqq1 | -0.0005756 | -0.0005756 | $-1.737 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |

| | | | | | | |
|-------------|------------|------------|------------------------|-----------------------|-----------------------|------------------------|
| Deltadcqq11 | -0.02093 | -0.02093 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| Deltadcqq3 | -0.0005756 | -0.0005756 | $-1.737 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |
| Deltadcqq31 | -0.02093 | -0.02093 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| DeltaucHq1 | -0.01407 | -0.01407 | $2.274 \cdot 10^{-6}$ | 0.02632 | 0.02632 | $-1.14 \cdot 10^{-7}$ |
| DeltaucHq3 | -0.01809 | -0.01809 | $-5.528 \cdot 10^{-8}$ | 0.0002261 | 0.0002261 | $-8.844 \cdot 10^{-8}$ |
| DeltaucdB | -0.0001698 | -0.0001698 | $2.356 \cdot 10^{-7}$ | $5.88 \cdot 10^{-5}$ | $5.88 \cdot 10^{-5}$ | $3.401 \cdot 10^{-7}$ |
| DeltaucdG | -0.0004208 | -0.0004208 | 0 | 0.0001816 | 0.0001816 | 0 |
| DeltaucdH | 0.0001178 | 0.0001178 | 0 | $2.719 \cdot 10^{-9}$ | $2.719 \cdot 10^{-9}$ | 0 |
| DeltaucdW | 0.001187 | 0.001187 | $-8.425 \cdot 10^{-8}$ | 0.0003324 | 0.0003324 | $-9.026 \cdot 10^{-8}$ |
| Deltaucqq1 | -35.76 | -35.76 | $-2.797 \cdot 10^{-8}$ | 8.946 | 8.946 | 0 |
| Deltaucqq11 | -35.76 | -35.76 | $-2.797 \cdot 10^{-8}$ | 8.946 | 8.946 | 0 |
| Deltaucqq3 | -0.9832 | -0.9832 | $-1.017 \cdot 10^{-8}$ | 2.887 | 2.887 | 0 |
| Deltaucqq31 | -0.9832 | -0.9832 | $-1.017 \cdot 10^{-8}$ | 2.887 | 2.887 | 0 |
| sm | 0 | 0 | 0 | 1.953 | 1.953 | 0 |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $-5.41 \cdot 10^{-7}$ | $-5.41 \cdot 10^{-7}$ | $3.697 \cdot 10^{-7}$ | $2.146 \cdot 10^{-8}$ | $2.146 \cdot 10^{-8}$ | 0 |
| Delta1dcqd8 | 0.0002318 | 0.0002318 | 0 | $4.51 \cdot 10^{-8}$ | $4.51 \cdot 10^{-8}$ | 0 |
| Delta1ucqd1 | -0.008744 | -0.008744 | $3.545 \cdot 10^{-7}$ | 0.5922 | 0.5922 | 0 |
| Delta1ucqd8 | 0.04188 | 0.04188 | 0 | 0.01391 | 0.01391 | 0 |
| Delta2cqd1 | $-5.117 \cdot 10^{-6}$ | $-5.117 \cdot 10^{-6}$ | $3.518 \cdot 10^{-7}$ | $2.029 \cdot 10^{-7}$ | $2.029 \cdot 10^{-7}$ | 0 |
| Delta2cqd8 | $2.452 \cdot 10^{-5}$ | $2.452 \cdot 10^{-5}$ | 0 | $4.768 \cdot 10^{-9}$ | $4.768 \cdot 10^{-9}$ | 0 |
| DeltacHd | $-3.725 \cdot 10^{-8}$ | $-3.725 \cdot 10^{-8}$ | $3.221 \cdot 10^{-7}$ | $1.02 \cdot 10^{-11}$ | $1.02 \cdot 10^{-11}$ | $-9.806 \cdot 10^{-8}$ |
| Deltacdd | $7.849 \cdot 10^{-7}$ | $7.849 \cdot 10^{-7}$ | $3.567 \cdot 10^{-7}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| Deltacdd1 | 0.0004254 | 0.0004254 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| DeltadcHq1 | $4.934 \cdot 10^{-8}$ | $4.934 \cdot 10^{-8}$ | $-4.053 \cdot 10^{-8}$ | $1.141 \cdot 10^{-12}$ | $1.141 \cdot 10^{-12}$ | $1.753 \cdot 10^{-7}$ |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcHq3 | $4.934 \cdot 10^{-8}$ | $4.934 \cdot 10^{-8}$ | $-4.053 \cdot 10^{-8}$ | $1.141 \cdot 10^{-12}$ | $1.141 \cdot 10^{-12}$ | $1.753 \cdot 10^{-7}$ |
| DeltadcdB | $-1.143 \cdot 10^{-10}$ | $-1.143 \cdot 10^{-10}$ | $8.752 \cdot 10^{-8}$ | $1.428 \cdot 10^{-13}$ | $1.428 \cdot 10^{-13}$ | $4.201 \cdot 10^{-7}$ |
| DeltadcdG | $-6.458 \cdot 10^{-8}$ | $-6.458 \cdot 10^{-8}$ | 0 | $5.797 \cdot 10^{-12}$ | $5.797 \cdot 10^{-12}$ | 0 |
| DeltadcdH | $-7.502 \cdot 10^{-18}$ | $-7.502 \cdot 10^{-18}$ | 0 | $1.307 \cdot 10^{-22}$ | $1.307 \cdot 10^{-22}$ | 0 |
| DeltadcdW | $-1.962 \cdot 10^{-9}$ | $-1.962 \cdot 10^{-9}$ | $-1.529 \cdot 10^{-7}$ | $1.038 \cdot 10^{-12}$ | $1.038 \cdot 10^{-12}$ | $-1.927 \cdot 10^{-7}$ |
| Deltadcqq1 | $6.026 \cdot 10^{-6}$ | $6.026 \cdot 10^{-6}$ | $-9.957 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| Deltadcqq11 | 0.0004458 | 0.0004458 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| Deltadcqq3 | $6.026 \cdot 10^{-6}$ | $6.026 \cdot 10^{-6}$ | $-9.957 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| Deltadcqq31 | 0.0004458 | 0.0004458 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| DeltaucHq1 | 0.0008505 | 0.0008505 | $-1.528 \cdot 10^{-7}$ | $2.714 \cdot 10^{-5}$ | $2.714 \cdot 10^{-5}$ | $-1.105 \cdot 10^{-7}$ |
| DeltaucHq3 | $8.429 \cdot 10^{-5}$ | $8.429 \cdot 10^{-5}$ | $-4.746 \cdot 10^{-8}$ | $3.329 \cdot 10^{-6}$ | $3.329 \cdot 10^{-6}$ | $1.202 \cdot 10^{-7}$ |
| DeltaucdB | $-5.247 \cdot 10^{-7}$ | $-5.247 \cdot 10^{-7}$ | $-5.717 \cdot 10^{-8}$ | $4.626 \cdot 10^{-7}$ | $4.626 \cdot 10^{-7}$ | $3.459 \cdot 10^{-7}$ |
| DeltaucdG | -0.0001103 | -0.0001103 | 0 | $1.524 \cdot 10^{-5}$ | $1.524 \cdot 10^{-5}$ | 0 |
| DeltaucdH | $-1.273 \cdot 10^{-14}$ | $-1.273 \cdot 10^{-14}$ | 0 | $3.813 \cdot 10^{-16}$ | $3.813 \cdot 10^{-16}$ | 0 |
| DeltaucdW | $-3.587 \cdot 10^{-6}$ | $-3.587 \cdot 10^{-6}$ | $-1.394 \cdot 10^{-7}$ | $2.739 \cdot 10^{-6}$ | $2.739 \cdot 10^{-6}$ | $-1.095 \cdot 10^{-7}$ |
| Deltaucqq1 | 0.12 | 0.12 | $-8.335 \cdot 10^{-8}$ | 0.5394 | 0.5394 | 0 |
| Deltaucqq11 | 0.7614 | 0.7614 | $-1.313 \cdot 10^{-8}$ | 0.5394 | 0.5394 | 0 |
| Deltaucqq3 | 0.01029 | 0.01029 | $-9.715 \cdot 10^{-8}$ | 0.04628 | 0.04628 | 0 |
| Deltaucqq31 | 0.06535 | 0.06535 | 0 | 0.04628 | 0.04628 | 0 |
| sm | 0 | 0 | 0 | 0.5727 | 0.5727 | 0 |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $-2.377 \cdot 10^{-6}$ | $-2.377 \cdot 10^{-6}$ | $3.787 \cdot 10^{-7}$ | $5.548 \cdot 10^{-8}$ | $5.548 \cdot 10^{-8}$ | 0 |
| Delta1dcqd8 | $6.593 \cdot 10^{-5}$ | $6.593 \cdot 10^{-5}$ | 0 | $1.063 \cdot 10^{-8}$ | $1.063 \cdot 10^{-8}$ | 0 |
| Delta1dcqu1 | -0.0001103 | -0.0001103 | 0 | $9.736 \cdot 10^{-8}$ | $9.736 \cdot 10^{-8}$ | 0 |
| Delta1dcqu8 | $-4.299 \cdot 10^{-5}$ | $-4.299 \cdot 10^{-5}$ | $-2.326 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | 0 |

| | | | | | | |
|-------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Delta1ucqd1 | -0.003737 | -0.003737 | $3.479 \cdot 10^{-7}$ | 0.1396 | 0.1396 | 0 |
| Delta1ucqd8 | 0.1275 | 0.1275 | 0 | 0.03597 | 0.03597 | 0 |
| Delta1ucqu1 | -0.152 | -0.152 | $-6.578 \cdot 10^{-8}$ | 0.1619 | 0.1619 | 0 |
| Delta1ucqu8 | -0.04507 | -0.04507 | $-2.219 \cdot 10^{-8}$ | 0.06313 | 0.06313 | 0 |
| Delta2cqd1 | $-2.188 \cdot 10^{-6}$ | $-2.188 \cdot 10^{-6}$ | $3.2 \cdot 10^{-7}$ | $4.784 \cdot 10^{-8}$ | $4.784 \cdot 10^{-8}$ | 0 |
| Delta2cqd8 | $7.466 \cdot 10^{-5}$ | $7.466 \cdot 10^{-5}$ | 0 | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | 0 |
| Delta2cqu1 | -0.152 | -0.152 | $-6.578 \cdot 10^{-8}$ | 0.1619 | 0.1619 | 0 |
| Delta2cqu8 | -0.07343 | -0.07343 | $-1.362 \cdot 10^{-8}$ | 0.03597 | 0.03597 | 0 |
| DeltacHd | $-2.767 \cdot 10^{-8}$ | $-2.767 \cdot 10^{-8}$ | $7.59 \cdot 10^{-7}$ | $2.341 \cdot 10^{-12}$ | $2.341 \cdot 10^{-12}$ | $4.271 \cdot 10^{-8}$ |
| DeltacHu | -0.0009805 | -0.0009805 | $-1.122 \cdot 10^{-7}$ | $8.137 \cdot 10^{-6}$ | $8.137 \cdot 10^{-6}$ | $-6.145 \cdot 10^{-8}$ |
| DeltadcHq1 | $-4.11 \cdot 10^{-7}$ | $-4.11 \cdot 10^{-7}$ | $2.92 \cdot 10^{-7}$ | $6.934 \cdot 10^{-13}$ | $6.934 \cdot 10^{-13}$ | $7.066 \cdot 10^{-7}$ |
| DeltadcHq3 | $2.225 \cdot 10^{-5}$ | $2.225 \cdot 10^{-5}$ | $-1.348 \cdot 10^{-7}$ | $2.34 \cdot 10^{-9}$ | $2.34 \cdot 10^{-9}$ | $-4.274 \cdot 10^{-8}$ |
| DeltadcdB | $1.156 \cdot 10^{-9}$ | $1.156 \cdot 10^{-9}$ | $1.73 \cdot 10^{-7}$ | $6.403 \cdot 10^{-13}$ | $6.403 \cdot 10^{-13}$ | $3.592 \cdot 10^{-7}$ |
| DeltadcdG | $-5.198 \cdot 10^{-8}$ | $-5.198 \cdot 10^{-8}$ | $3.847 \cdot 10^{-8}$ | $7.391 \cdot 10^{-12}$ | $7.391 \cdot 10^{-12}$ | 0 |
| DeltadcdH | $-5.888 \cdot 10^{-9}$ | $-5.888 \cdot 10^{-9}$ | 0 | $1.575 \cdot 10^{-13}$ | $1.575 \cdot 10^{-13}$ | 0 |
| DeltadcdW | $-6.349 \cdot 10^{-8}$ | $-6.349 \cdot 10^{-8}$ | $-4.725 \cdot 10^{-8}$ | $1.542 \cdot 10^{-11}$ | $1.542 \cdot 10^{-11}$ | $-1.297 \cdot 10^{-7}$ |
| Deltadcqq1 | -0.0002963 | -0.0002963 | $-1.012 \cdot 10^{-7}$ | $5.118 \cdot 10^{-7}$ | $5.118 \cdot 10^{-7}$ | 0 |
| Deltadcqq11 | -0.0002575 | -0.0002575 | $-1.165 \cdot 10^{-7}$ | $4.648 \cdot 10^{-7}$ | $4.648 \cdot 10^{-7}$ | 0 |
| Deltadcqq3 | 0.0002572 | 0.0002572 | $3.499 \cdot 10^{-7}$ | $1.877 \cdot 10^{-6}$ | $1.877 \cdot 10^{-6}$ | 0 |
| Deltadcqq31 | 0.0002995 | 0.0002995 | $2.671 \cdot 10^{-7}$ | $1.704 \cdot 10^{-6}$ | $1.704 \cdot 10^{-6}$ | 0 |
| DeltadcuB | $2.008 \cdot 10^{-6}$ | $2.008 \cdot 10^{-6}$ | $9.962 \cdot 10^{-8}$ | $3.973 \cdot 10^{-10}$ | $3.973 \cdot 10^{-10}$ | $3.524 \cdot 10^{-7}$ |
| DeltadcuG | $-4.394 \cdot 10^{-5}$ | $-4.394 \cdot 10^{-5}$ | $6.827 \cdot 10^{-8}$ | $1.386 \cdot 10^{-8}$ | $1.386 \cdot 10^{-8}$ | 0 |
| DeltadcuH | $-5.888 \cdot 10^{-9}$ | $-5.888 \cdot 10^{-9}$ | 0 | $1.575 \cdot 10^{-13}$ | $1.575 \cdot 10^{-13}$ | 0 |
| DeltadcuW | $2.284 \cdot 10^{-5}$ | $2.284 \cdot 10^{-5}$ | $-1.751 \cdot 10^{-7}$ | $4.114 \cdot 10^{-8}$ | $4.114 \cdot 10^{-8}$ | $-9.724 \cdot 10^{-8}$ |
| Deltadcud1 | $-1.29 \cdot 10^{-5}$ | $-1.29 \cdot 10^{-5}$ | $3.875 \cdot 10^{-7}$ | $1.28 \cdot 10^{-7}$ | $1.28 \cdot 10^{-7}$ | 0 |
| Deltadcud8 | 0.0001575 | 0.0001575 | 0 | $2.844 \cdot 10^{-8}$ | $2.844 \cdot 10^{-8}$ | 0 |
| DeltaucHq1 | -0.0006788 | -0.0006788 | $2.946 \cdot 10^{-7}$ | $2.155 \cdot 10^{-6}$ | $2.155 \cdot 10^{-6}$ | $7.425 \cdot 10^{-7}$ |
| DeltaucHq3 | 0.03801 | 0.03801 | $-1.316 \cdot 10^{-7}$ | 0.006827 | 0.006827 | $-8.788 \cdot 10^{-8}$ |
| DeltaucdB | $2.366 \cdot 10^{-6}$ | $2.366 \cdot 10^{-6}$ | $1.691 \cdot 10^{-7}$ | $1.919 \cdot 10^{-6}$ | $1.919 \cdot 10^{-6}$ | $3.126 \cdot 10^{-7}$ |

| | | | | | | |
|-------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|
| DeltaucdG | $-8.521 \cdot 10^{-5}$ | $-8.521 \cdot 10^{-5}$ | $3.521 \cdot 10^{-8}$ | $2.101 \cdot 10^{-5}$ | $2.101 \cdot 10^{-5}$ | 0 |
| DeltaucdH | $-1.005 \cdot 10^{-5}$ | $-1.005 \cdot 10^{-5}$ | 0 | $4.595 \cdot 10^{-7}$ | $4.595 \cdot 10^{-7}$ | 0 |
| DeltaucdW | -0.0001352 | -0.0001352 | $-7.395 \cdot 10^{-8}$ | $7.85 \cdot 10^{-5}$ | $7.85 \cdot 10^{-5}$ | $-1.019 \cdot 10^{-7}$ |
| Deltaucqq1 | -0.4398 | -0.4398 | $-9.094 \cdot 10^{-8}$ | 1.356 | 1.356 | 0 |
| Deltaucqq11 | -0.4398 | -0.4398 | $-9.094 \cdot 10^{-8}$ | 1.356 | 1.356 | 0 |
| Deltaucqq3 | 0.4394 | 0.4394 | $3.641 \cdot 10^{-7}$ | 5.476 | 5.476 | 0 |
| Deltaucqq31 | 0.4394 | 0.4394 | $3.641 \cdot 10^{-7}$ | 5.476 | 5.476 | 0 |
| DeltaucuB | 0.004261 | 0.004261 | $7.041 \cdot 10^{-8}$ | 0.001132 | 0.001132 | $3.535 \cdot 10^{-7}$ |
| DeltaucuG | -0.07506 | -0.07506 | $6.662 \cdot 10^{-8}$ | 0.04044 | 0.04044 | 0 |
| DeltaucuH | $-1.006 \cdot 10^{-5}$ | $-1.006 \cdot 10^{-5}$ | 0 | $4.595 \cdot 10^{-7}$ | $4.595 \cdot 10^{-7}$ | 0 |
| DeltaucuW | -0.00507 | -0.00507 | $3.55 \cdot 10^{-7}$ | 0.06821 | 0.06821 | $-1.026 \cdot 10^{-7}$ |
| Deltaucud1 | -0.01223 | -0.01223 | $3.271 \cdot 10^{-7}$ | 0.204 | 0.204 | 0 |
| Deltaucud8 | 0.269 | 0.269 | 0 | 0.08297 | 0.08297 | 0 |
| sm | 0 | 0 | 0 | 0.3468 | 0.3468 | 0 |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| Delta1dcqd1 | $-3.367 \cdot 10^{-12}$ | $-3.367 \cdot 10^{-12}$ | $3.563 \cdot 10^{-7}$ | $1.73 \cdot 10^{-19}$ | $1.73 \cdot 10^{-19}$ | 0 |
| Delta1dcqd8 | $2.89 \cdot 10^{-10}$ | $2.89 \cdot 10^{-10}$ | 0 | $7.018 \cdot 10^{-20}$ | $7.018 \cdot 10^{-20}$ | 0 |
| Delta1dcqu1 | $4.73 \cdot 10^{-6}$ | $4.73 \cdot 10^{-6}$ | $3.594 \cdot 10^{-7}$ | $9.377 \cdot 10^{-8}$ | $9.377 \cdot 10^{-8}$ | 0 |
| Delta1dcqu8 | 0.0001269 | 0.0001269 | 0 | $2.468 \cdot 10^{-8}$ | $2.468 \cdot 10^{-8}$ | 0 |
| Delta1ucqd1 | $-1.314 \cdot 10^{-12}$ | $-1.314 \cdot 10^{-12}$ | $3.804 \cdot 10^{-7}$ | $1.445 \cdot 10^{-20}$ | $1.445 \cdot 10^{-20}$ | 0 |
| Delta1ucqd8 | $3.388 \cdot 10^{-11}$ | $3.388 \cdot 10^{-11}$ | 0 | $1.76 \cdot 10^{-21}$ | $1.76 \cdot 10^{-21}$ | 0 |
| Delta1ucqu1 | 0.00957 | 0.00957 | $3.553 \cdot 10^{-7}$ | 0.3241 | 0.3241 | 0 |
| Delta1ucqu8 | 0.183 | 0.183 | 0 | 0.0608 | 0.0608 | 0 |
| Delta2cqd1 | $-4.922 \cdot 10^{-6}$ | $-4.922 \cdot 10^{-6}$ | $3.657 \cdot 10^{-7}$ | $2.027 \cdot 10^{-7}$ | $2.027 \cdot 10^{-7}$ | 0 |
| Delta2cqd8 | 0.0001269 | 0.0001269 | 0 | $2.468 \cdot 10^{-8}$ | $2.468 \cdot 10^{-8}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Delta2cqu1 | $1.496 \cdot 10^{-12}$ | $1.496 \cdot 10^{-12}$ | $3.342 \cdot 10^{-7}$ | $7.919 \cdot 10^{-21}$ | $7.919 \cdot 10^{-21}$ | 0 |
| Delta2cqu8 | $3.388 \cdot 10^{-11}$ | $3.388 \cdot 10^{-11}$ | 0 | $1.76 \cdot 10^{-21}$ | $1.76 \cdot 10^{-21}$ | 0 |
| DeltacHd | $2.43 \cdot 10^{-8}$ | $2.43 \cdot 10^{-8}$ | $1.234 \cdot 10^{-7}$ | $6.865 \cdot 10^{-12}$ | $6.865 \cdot 10^{-12}$ | $-3.059 \cdot 10^{-7}$ |
| DeltacHu | $1.988 \cdot 10^{-14}$ | $1.988 \cdot 10^{-14}$ | $3.018 \cdot 10^{-7}$ | $7.262 \cdot 10^{-25}$ | $7.262 \cdot 10^{-25}$ | $-1.239 \cdot 10^{-7}$ |
| DeltadcHq1 | $5.933 \cdot 10^{-8}$ | $5.933 \cdot 10^{-8}$ | $1.517 \cdot 10^{-7}$ | $1.913 \cdot 10^{-12}$ | $1.913 \cdot 10^{-12}$ | $4.182 \cdot 10^{-7}$ |
| DeltadcHq3 | $5.933 \cdot 10^{-8}$ | $5.933 \cdot 10^{-8}$ | $1.517 \cdot 10^{-7}$ | $1.913 \cdot 10^{-12}$ | $1.913 \cdot 10^{-12}$ | $4.182 \cdot 10^{-7}$ |
| DeltadcdB | $3.311 \cdot 10^{-11}$ | $3.311 \cdot 10^{-11}$ | $-9.966 \cdot 10^{-7}$ | $4.815 \cdot 10^{-13}$ | $4.815 \cdot 10^{-13}$ | $3.531 \cdot 10^{-7}$ |
| DeltadcdG | $-6.458 \cdot 10^{-8}$ | $-6.458 \cdot 10^{-8}$ | 0 | $7.459 \cdot 10^{-12}$ | $7.459 \cdot 10^{-12}$ | 0 |
| DeltadcdH | $-1.602 \cdot 10^{-18}$ | $-1.602 \cdot 10^{-18}$ | 0 | $2.795 \cdot 10^{-23}$ | $2.795 \cdot 10^{-23}$ | 0 |
| DeltadcdW | $-1.356 \cdot 10^{-9}$ | $-1.356 \cdot 10^{-9}$ | $-1.474 \cdot 10^{-7}$ | $1.23 \cdot 10^{-12}$ | $1.23 \cdot 10^{-12}$ | $-1.626 \cdot 10^{-7}$ |
| Deltadcqq1 | $-5.651 \cdot 10^{-6}$ | $-5.651 \cdot 10^{-6}$ | $-1.239 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| Deltadcqq3 | $5.651 \cdot 10^{-6}$ | $5.651 \cdot 10^{-6}$ | $-1.239 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| Deltadcqq31 | 0.0002562 | 0.0002562 | 0 | $2.365 \cdot 10^{-7}$ | $2.365 \cdot 10^{-7}$ | 0 |
| DeltadcuB | $1.088 \cdot 10^{-23}$ | $1.088 \cdot 10^{-23}$ | $-2.941 \cdot 10^{-6}$ | $8.663 \cdot 10^{-32}$ | $8.663 \cdot 10^{-32}$ | $3.578 \cdot 10^{-7}$ |
| DeltadcuG | $-2.153 \cdot 10^{-20}$ | $-2.153 \cdot 10^{-20}$ | 0 | $2.176 \cdot 10^{-30}$ | $2.176 \cdot 10^{-30}$ | 0 |
| DeltadcuH | $-1.999 \cdot 10^{-24}$ | $-1.999 \cdot 10^{-24}$ | 0 | $4.355 \cdot 10^{-35}$ | $4.355 \cdot 10^{-35}$ | 0 |
| DeltadcuW | $-3.045 \cdot 10^{-22}$ | $-3.045 \cdot 10^{-22}$ | $-2.956 \cdot 10^{-7}$ | $5.024 \cdot 10^{-31}$ | $5.024 \cdot 10^{-31}$ | $-1.194 \cdot 10^{-7}$ |
| Deltadcud1 | $-1.577 \cdot 10^{-6}$ | $-1.577 \cdot 10^{-6}$ | $3.805 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| Deltadcud8 | $1.82 \cdot 10^{-5}$ | $1.82 \cdot 10^{-5}$ | 0 | $3.54 \cdot 10^{-9}$ | $3.54 \cdot 10^{-9}$ | 0 |
| DeltaucHq1 | 0.0002319 | 0.0002319 | $-1.725 \cdot 10^{-7}$ | $7.961 \cdot 10^{-6}$ | $7.961 \cdot 10^{-6}$ | $-3.768 \cdot 10^{-8}$ |
| DeltaucHq3 | 0.0001013 | 0.0001013 | $1.974 \cdot 10^{-7}$ | $5.582 \cdot 10^{-6}$ | $5.582 \cdot 10^{-6}$ | $4.299 \cdot 10^{-7}$ |
| DeltaucdB | $5.001 \cdot 10^{-7}$ | $5.001 \cdot 10^{-7}$ | $2.2 \cdot 10^{-7}$ | $2.004 \cdot 10^{-6}$ | $2.004 \cdot 10^{-6}$ | $3.494 \cdot 10^{-7}$ |
| DeltaucdG | -0.0001103 | -0.0001103 | 0 | $1.526 \cdot 10^{-5}$ | $1.526 \cdot 10^{-5}$ | 0 |
| DeltaucdH | $-2.744 \cdot 10^{-15}$ | $-2.744 \cdot 10^{-15}$ | 0 | $8.156 \cdot 10^{-17}$ | $8.156 \cdot 10^{-17}$ | 0 |
| DeltaucdW | $-2.117 \cdot 10^{-6}$ | $-2.117 \cdot 10^{-6}$ | $-1.417 \cdot 10^{-7}$ | $3.515 \cdot 10^{-6}$ | $3.515 \cdot 10^{-6}$ | $-1.138 \cdot 10^{-7}$ |
| Deltaucqq1 | -0.03583 | -0.03583 | $-1.396 \cdot 10^{-7}$ | 0.1725 | 0.1725 | 0 |
| Deltaucqq3 | 0.009652 | 0.009652 | $-1.243 \cdot 10^{-7}$ | 0.04648 | 0.04648 | 0 |
| Deltaucqq31 | 0.1179 | 0.1179 | 0 | 0.1859 | 0.1859 | 0 |
| DeltaucuB | $1.099 \cdot 10^{-24}$ | $1.099 \cdot 10^{-24}$ | $-6.095 \cdot 10^{-6}$ | $3.883 \cdot 10^{-33}$ | $3.883 \cdot 10^{-33}$ | $3.605 \cdot 10^{-7}$ |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucuG | $-4.605 \cdot 10^{-21}$ | $-4.605 \cdot 10^{-21}$ | 0 | $9.958 \cdot 10^{-32}$ | $9.958 \cdot 10^{-32}$ | 0 |
| DeltaucuH | $-4.277 \cdot 10^{-25}$ | $-4.277 \cdot 10^{-25}$ | 0 | $1.993 \cdot 10^{-36}$ | $1.993 \cdot 10^{-36}$ | 0 |
| DeltaucuW | $-7.539 \cdot 10^{-23}$ | $-7.539 \cdot 10^{-23}$ | $-2.786 \cdot 10^{-7}$ | $2.348 \cdot 10^{-32}$ | $2.348 \cdot 10^{-32}$ | $-1.278 \cdot 10^{-7}$ |
| Deltaucud1 | $-1.93 \cdot 10^{-12}$ | $-1.93 \cdot 10^{-12}$ | $3.627 \cdot 10^{-7}$ | $5.206 \cdot 10^{-21}$ | $5.206 \cdot 10^{-21}$ | 0 |
| Deltaucud8 | $4.861 \cdot 10^{-12}$ | $4.861 \cdot 10^{-12}$ | 0 | $2.524 \cdot 10^{-22}$ | $2.524 \cdot 10^{-22}$ | 0 |
| sm | 0 | 0 | 0 | 0.4923 | 0.4923 | 0 |

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

| | interference | | | square | | |
|--------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $7.51 \cdot 10^{-7}$ | $7.51 \cdot 10^{-7}$ | $-2.13 \cdot 10^{-7}$ | $1.312 \cdot 10^{-11}$ | $1.312 \cdot 10^{-11}$ | $-2.286 \cdot 10^{-7}$ |
| DeltadcdW | $-9.552 \cdot 10^{-10}$ | $-9.552 \cdot 10^{-10}$ | $-1.57 \cdot 10^{-7}$ | $8.488 \cdot 10^{-13}$ | $8.488 \cdot 10^{-13}$ | $-1.06 \cdot 10^{-7}$ |
| Deltadcledq | $-4.933 \cdot 10^{-19}$ | $-4.933 \cdot 10^{-19}$ | 0 | $1.375 \cdot 10^{-22}$ | $1.375 \cdot 10^{-22}$ | 0 |
| Deltadclequ1 | $8.113 \cdot 10^{-16}$ | $8.113 \cdot 10^{-16}$ | 0 | $2.349 \cdot 10^{-19}$ | $2.349 \cdot 10^{-19}$ | 0 |
| Deltadclequ3 | $-2.165 \cdot 10^{-15}$ | $-2.165 \cdot 10^{-15}$ | 0 | $1.86 \cdot 10^{-18}$ | $1.86 \cdot 10^{-18}$ | 0 |
| Deltadclq3 | 0.0001487 | 0.0001487 | $-1.345 \cdot 10^{-7}$ | $4.052 \cdot 10^{-7}$ | $4.052 \cdot 10^{-7}$ | 0 |
| DeltadcuW | $-3.027 \cdot 10^{-6}$ | $-3.027 \cdot 10^{-6}$ | $-1.652 \cdot 10^{-7}$ | $3.92 \cdot 10^{-10}$ | $3.92 \cdot 10^{-10}$ | $-1.02 \cdot 10^{-7}$ |
| DeltaucHq3 | 0.001283 | 0.001283 | $-1.559 \cdot 10^{-7}$ | $3.829 \cdot 10^{-5}$ | $3.829 \cdot 10^{-5}$ | $-2.089 \cdot 10^{-7}$ |
| DeltaucdW | $-3.031 \cdot 10^{-6}$ | $-3.031 \cdot 10^{-6}$ | $-1.649 \cdot 10^{-7}$ | $4.081 \cdot 10^{-7}$ | $4.081 \cdot 10^{-7}$ | $-9.801 \cdot 10^{-8}$ |
| Deltaucledq | $-8.438 \cdot 10^{-16}$ | $-8.438 \cdot 10^{-16}$ | 0 | $4.012 \cdot 10^{-16}$ | $4.012 \cdot 10^{-16}$ | 0 |
| Deltauclequ1 | $1.386 \cdot 10^{-12}$ | $1.386 \cdot 10^{-12}$ | 0 | $6.853 \cdot 10^{-13}$ | $6.853 \cdot 10^{-13}$ | 0 |
| Deltauclequ3 | $-4.902 \cdot 10^{-12}$ | $-4.902 \cdot 10^{-12}$ | 0 | $9.162 \cdot 10^{-12}$ | $9.162 \cdot 10^{-12}$ | 0 |
| Deltauclq3 | 0.2541 | 0.2541 | $-1.181 \cdot 10^{-7}$ | 1.182 | 1.182 | 0 |
| DeltaucuW | -0.002707 | -0.002707 | $-1.847 \cdot 10^{-7}$ | 0.004231 | 0.004231 | $-1.182 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.003846 | 0.003846 | $-2.08 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|--------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHu | $1.514 \cdot 10^{-10}$ | $1.514 \cdot 10^{-10}$ | $1.011 \cdot 10^{-5}$ | $8.729 \cdot 10^{-15}$ | $8.729 \cdot 10^{-15}$ | $-1.947 \cdot 10^{-7}$ |
| Deltaceu | $-5.823 \cdot 10^{-7}$ | $-5.823 \cdot 10^{-7}$ | $3.606 \cdot 10^{-7}$ | $1.81 \cdot 10^{-10}$ | $1.81 \cdot 10^{-10}$ | 0 |
| Deltaclu | $-1.102 \cdot 10^{-6}$ | $-1.102 \cdot 10^{-6}$ | $3.629 \cdot 10^{-7}$ | $6.897 \cdot 10^{-10}$ | $6.897 \cdot 10^{-10}$ | 0 |
| DeltadcHq1 | $-1.4 \cdot 10^{-11}$ | $-1.4 \cdot 10^{-11}$ | $-7.855 \cdot 10^{-7}$ | $2.354 \cdot 10^{-19}$ | $2.354 \cdot 10^{-19}$ | $1.274 \cdot 10^{-7}$ |
| DeltadcHq3 | $1.4 \cdot 10^{-11}$ | $1.4 \cdot 10^{-11}$ | $-7.855 \cdot 10^{-7}$ | $2.354 \cdot 10^{-19}$ | $2.354 \cdot 10^{-19}$ | $1.274 \cdot 10^{-7}$ |
| DeltadcLequ1 | $1.881 \cdot 10^{-18}$ | $1.881 \cdot 10^{-18}$ | 0 | $2.659 \cdot 10^{-25}$ | $2.659 \cdot 10^{-25}$ | 0 |
| DeltadcLequ3 | $1.105 \cdot 10^{-18}$ | $1.105 \cdot 10^{-18}$ | 0 | $6.561 \cdot 10^{-26}$ | $6.561 \cdot 10^{-26}$ | 0 |
| Deltadclq1 | $-4.24 \cdot 10^{-9}$ | $-4.24 \cdot 10^{-9}$ | $-7.076 \cdot 10^{-8}$ | $5.204 \cdot 10^{-15}$ | $5.204 \cdot 10^{-15}$ | 0 |
| Deltadclq3 | $4.659 \cdot 10^{-10}$ | $4.659 \cdot 10^{-10}$ | $-6.44 \cdot 10^{-8}$ | $5.718 \cdot 10^{-16}$ | $5.718 \cdot 10^{-16}$ | 0 |
| Deltadcqe | $-2.917 \cdot 10^{-9}$ | $-2.917 \cdot 10^{-9}$ | $3.428 \cdot 10^{-7}$ | $1.983 \cdot 10^{-14}$ | $1.983 \cdot 10^{-14}$ | 0 |
| DeltadcuB | $-5.276 \cdot 10^{-14}$ | $-5.276 \cdot 10^{-14}$ | $3.791 \cdot 10^{-7}$ | $1 \cdot 10^{-20}$ | $1 \cdot 10^{-20}$ | $3.998 \cdot 10^{-7}$ |
| DeltadcuH | $-5.897 \cdot 10^{-20}$ | $-5.897 \cdot 10^{-20}$ | 0 | $5.043 \cdot 10^{-28}$ | $5.043 \cdot 10^{-28}$ | 0 |
| DeltadcuW | $-2.122 \cdot 10^{-14}$ | $-2.122 \cdot 10^{-14}$ | $1.413 \cdot 10^{-7}$ | $4.609 \cdot 10^{-21}$ | $4.609 \cdot 10^{-21}$ | $-1.085 \cdot 10^{-7}$ |
| DeltaucHq1 | $1.743 \cdot 10^{-9}$ | $1.743 \cdot 10^{-9}$ | $9.755 \cdot 10^{-7}$ | $1.098 \cdot 10^{-14}$ | $1.098 \cdot 10^{-14}$ | $6.377 \cdot 10^{-7}$ |
| DeltaucHq3 | $2.611 \cdot 10^{-9}$ | $2.611 \cdot 10^{-9}$ | $-7.659 \cdot 10^{-7}$ | $8.188 \cdot 10^{-15}$ | $8.188 \cdot 10^{-15}$ | $1.221 \cdot 10^{-7}$ |
| DeltaucLequ1 | $3.507 \cdot 10^{-16}$ | $3.507 \cdot 10^{-16}$ | 0 | $9.248 \cdot 10^{-21}$ | $9.248 \cdot 10^{-21}$ | 0 |
| DeltaucLequ3 | $1.02 \cdot 10^{-15}$ | $1.02 \cdot 10^{-15}$ | 0 | $7.452 \cdot 10^{-20}$ | $7.452 \cdot 10^{-20}$ | 0 |
| Deltauclq1 | $-7.907 \cdot 10^{-7}$ | $-7.907 \cdot 10^{-7}$ | $-6.324 \cdot 10^{-8}$ | $1.81 \cdot 10^{-10}$ | $1.81 \cdot 10^{-10}$ | 0 |
| Deltauclq3 | $8.688 \cdot 10^{-8}$ | $8.688 \cdot 10^{-8}$ | $-6.906 \cdot 10^{-8}$ | $1.989 \cdot 10^{-11}$ | $1.989 \cdot 10^{-11}$ | 0 |
| Deltaucqe | $-5.44 \cdot 10^{-7}$ | $-5.44 \cdot 10^{-7}$ | $3.676 \cdot 10^{-7}$ | $6.897 \cdot 10^{-10}$ | $6.897 \cdot 10^{-10}$ | 0 |
| DeltaucuB | $-4.663 \cdot 10^{-12}$ | $-4.663 \cdot 10^{-12}$ | $4.718 \cdot 10^{-7}$ | $2.424 \cdot 10^{-16}$ | $2.424 \cdot 10^{-16}$ | $3.713 \cdot 10^{-7}$ |
| DeltaucuH | $-1.1 \cdot 10^{-17}$ | $-1.1 \cdot 10^{-17}$ | 0 | $1.754 \cdot 10^{-23}$ | $1.754 \cdot 10^{-23}$ | 0 |
| DeltaucuW | $-7.368 \cdot 10^{-12}$ | $-7.368 \cdot 10^{-12}$ | $-8.143 \cdot 10^{-8}$ | $2.301 \cdot 10^{-16}$ | $2.301 \cdot 10^{-16}$ | $-1.304 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.004138 | 0.004138 | $1.692 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|--------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltadcHq3 | $1.565 \cdot 10^{-10}$ | $1.565 \cdot 10^{-10}$ | $-2.555 \cdot 10^{-7}$ | $1.354 \cdot 10^{-18}$ | $1.354 \cdot 10^{-18}$ | $-2.216 \cdot 10^{-7}$ |
| DeltadcW | $-2.159 \cdot 10^{-16}$ | $-2.159 \cdot 10^{-16}$ | $-1.853 \cdot 10^{-7}$ | $9.972 \cdot 10^{-23}$ | $9.972 \cdot 10^{-23}$ | $-1.103 \cdot 10^{-7}$ |
| Deltadcledq | $-1.414 \cdot 10^{-18}$ | $-1.414 \cdot 10^{-18}$ | 0 | $2.017 \cdot 10^{-25}$ | $2.017 \cdot 10^{-25}$ | 0 |
| Deltadclequ1 | $2.634 \cdot 10^{-16}$ | $2.634 \cdot 10^{-16}$ | 0 | $3.761 \cdot 10^{-23}$ | $3.761 \cdot 10^{-23}$ | 0 |
| Deltadclequ3 | $-8.507 \cdot 10^{-17}$ | $-8.507 \cdot 10^{-17}$ | $2.351 \cdot 10^{-8}$ | $6.168 \cdot 10^{-24}$ | $6.168 \cdot 10^{-24}$ | 0 |
| Deltadclq3 | $6.385 \cdot 10^{-8}$ | $6.385 \cdot 10^{-8}$ | $-1.096 \cdot 10^{-7}$ | $8.61 \cdot 10^{-14}$ | $8.61 \cdot 10^{-14}$ | 0 |
| DeltadcuW | $-7.545 \cdot 10^{-14}$ | $-7.545 \cdot 10^{-14}$ | $-1.59 \cdot 10^{-7}$ | $7.267 \cdot 10^{-21}$ | $7.267 \cdot 10^{-21}$ | $-1.101 \cdot 10^{-7}$ |
| DeltaucHq3 | $2.919 \cdot 10^{-8}$ | $2.919 \cdot 10^{-8}$ | $-2.398 \cdot 10^{-7}$ | $4.708 \cdot 10^{-14}$ | $4.708 \cdot 10^{-14}$ | $-2.124 \cdot 10^{-7}$ |
| DeltaucdW | $-7.547 \cdot 10^{-14}$ | $-7.547 \cdot 10^{-14}$ | $-1.59 \cdot 10^{-7}$ | $1.355 \cdot 10^{-18}$ | $1.355 \cdot 10^{-18}$ | $-1.476 \cdot 10^{-7}$ |
| Deltaucledq | $-2.649 \cdot 10^{-16}$ | $-2.649 \cdot 10^{-16}$ | 0 | $7.013 \cdot 10^{-21}$ | $7.013 \cdot 10^{-21}$ | 0 |
| Deltauclequ1 | $4.913 \cdot 10^{-14}$ | $4.913 \cdot 10^{-14}$ | 0 | $1.308 \cdot 10^{-18}$ | $1.308 \cdot 10^{-18}$ | 0 |
| Deltauclequ3 | $-1.478 \cdot 10^{-13}$ | $-1.478 \cdot 10^{-13}$ | 0 | $1.277 \cdot 10^{-17}$ | $1.277 \cdot 10^{-17}$ | 0 |
| Deltauclq3 | $1.191 \cdot 10^{-5}$ | $1.191 \cdot 10^{-5}$ | $-1.68 \cdot 10^{-7}$ | $2.994 \cdot 10^{-9}$ | $2.994 \cdot 10^{-9}$ | 0 |
| DeltaucuW | $-7.508 \cdot 10^{-12}$ | $-7.508 \cdot 10^{-12}$ | $-1.731 \cdot 10^{-7}$ | $6.467 \cdot 10^{-16}$ | $6.467 \cdot 10^{-16}$ | $-1.082 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.003369 | 0.003369 | $-2.374 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| Delta1dcqd1 | $-3.154 \cdot 10^{-11}$ | $-3.154 \cdot 10^{-11}$ | $3.488 \cdot 10^{-7}$ | $6.426 \cdot 10^{-16}$ | $6.426 \cdot 10^{-16}$ | 0 |
| Delta1dcqd8 | $2.366 \cdot 10^{-8}$ | $2.366 \cdot 10^{-8}$ | 0 | $2.278 \cdot 10^{-15}$ | $2.278 \cdot 10^{-15}$ | 0 |
| Delta1dcqu1 | $4.675 \cdot 10^{-12}$ | $4.675 \cdot 10^{-12}$ | $3.636 \cdot 10^{-7}$ | $1.157 \cdot 10^{-19}$ | $1.157 \cdot 10^{-19}$ | 0 |
| Delta1dcqu8 | $3.74 \cdot 10^{-12}$ | $3.74 \cdot 10^{-12}$ | 0 | $9.079 \cdot 10^{-22}$ | $9.079 \cdot 10^{-22}$ | 0 |
| Delta1ucqd1 | $-9.376 \cdot 10^{-8}$ | $-9.376 \cdot 10^{-8}$ | $3.626 \cdot 10^{-7}$ | $3.566 \cdot 10^{-10}$ | $3.566 \cdot 10^{-10}$ | 0 |
| Delta1ucqd8 | $2.766 \cdot 10^{-7}$ | $2.766 \cdot 10^{-7}$ | 0 | $4.966 \cdot 10^{-12}$ | $4.966 \cdot 10^{-12}$ | 0 |
| Delta1ucqu1 | $3.528 \cdot 10^{-14}$ | $3.528 \cdot 10^{-14}$ | $3.685 \cdot 10^{-7}$ | $1.87 \cdot 10^{-22}$ | $1.87 \cdot 10^{-22}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Delta1ucqu8 | $2.265 \cdot 10^{-11}$ | $2.265 \cdot 10^{-11}$ | 0 | $1.176 \cdot 10^{-21}$ | $1.176 \cdot 10^{-21}$ | 0 |
| Delta2cqd1 | $-1.268 \cdot 10^{-12}$ | $-1.268 \cdot 10^{-12}$ | $3.155 \cdot 10^{-7}$ | $6.519 \cdot 10^{-20}$ | $6.519 \cdot 10^{-20}$ | 0 |
| Delta2cqd8 | $3.74 \cdot 10^{-12}$ | $3.74 \cdot 10^{-12}$ | 0 | $9.079 \cdot 10^{-22}$ | $9.079 \cdot 10^{-22}$ | 0 |
| Delta2cqu1 | $1.22 \cdot 10^{-8}$ | $1.22 \cdot 10^{-8}$ | $3.28 \cdot 10^{-7}$ | $2.235 \cdot 10^{-11}$ | $2.235 \cdot 10^{-11}$ | 0 |
| Delta2cqu8 | $2.766 \cdot 10^{-7}$ | $2.766 \cdot 10^{-7}$ | 0 | $4.966 \cdot 10^{-12}$ | $4.966 \cdot 10^{-12}$ | 0 |
| DeltacHd | $-3.73 \cdot 10^{-14}$ | $-3.73 \cdot 10^{-14}$ | $8.043 \cdot 10^{-7}$ | $3.642 \cdot 10^{-24}$ | $3.642 \cdot 10^{-24}$ | $8.237 \cdot 10^{-8}$ |
| DeltacHu | $3.029 \cdot 10^{-9}$ | $3.029 \cdot 10^{-9}$ | $4.952 \cdot 10^{-7}$ | $1.988 \cdot 10^{-14}$ | $1.988 \cdot 10^{-14}$ | $-5.031 \cdot 10^{-8}$ |
| DeltadcHq1 | $-1.709 \cdot 10^{-10}$ | $-1.709 \cdot 10^{-10}$ | $-1.756 \cdot 10^{-7}$ | $1.709 \cdot 10^{-18}$ | $1.709 \cdot 10^{-18}$ | $-1.171 \cdot 10^{-7}$ |
| DeltadcHq3 | $1.716 \cdot 10^{-10}$ | $1.716 \cdot 10^{-10}$ | $-2.331 \cdot 10^{-7}$ | $1.723 \cdot 10^{-18}$ | $1.723 \cdot 10^{-18}$ | $-1.161 \cdot 10^{-7}$ |
| DeltadcdB | $9.011 \cdot 10^{-22}$ | $9.011 \cdot 10^{-22}$ | $2.774 \cdot 10^{-7}$ | $1.253 \cdot 10^{-30}$ | $1.253 \cdot 10^{-30}$ | $3.192 \cdot 10^{-7}$ |
| DeltadcdG | $-1.006 \cdot 10^{-19}$ | $-1.006 \cdot 10^{-19}$ | 0 | $4.814 \cdot 10^{-30}$ | $4.814 \cdot 10^{-30}$ | 0 |
| DeltadcdH | $-8.565 \cdot 10^{-25}$ | $-8.565 \cdot 10^{-25}$ | 0 | $1.879 \cdot 10^{-35}$ | $1.879 \cdot 10^{-35}$ | 0 |
| DeltadcdW | $-2.341 \cdot 10^{-21}$ | $-2.341 \cdot 10^{-21}$ | $-1.709 \cdot 10^{-7}$ | $2.394 \cdot 10^{-30}$ | $2.394 \cdot 10^{-30}$ | $-8.355 \cdot 10^{-8}$ |
| Deltadcqq1 | $-2.434 \cdot 10^{-8}$ | $-2.434 \cdot 10^{-8}$ | $-1.232 \cdot 10^{-7}$ | $3.405 \cdot 10^{-14}$ | $3.405 \cdot 10^{-14}$ | 0 |
| Deltadcqq3 | $2.434 \cdot 10^{-8}$ | $2.434 \cdot 10^{-8}$ | $-1.232 \cdot 10^{-7}$ | $3.405 \cdot 10^{-14}$ | $3.405 \cdot 10^{-14}$ | 0 |
| Deltadcqq31 | $5.931 \cdot 10^{-7}$ | $5.931 \cdot 10^{-7}$ | $1.686 \cdot 10^{-8}$ | $2.717 \cdot 10^{-13}$ | $2.717 \cdot 10^{-13}$ | 0 |
| DeltadcuB | $2.472 \cdot 10^{-15}$ | $2.472 \cdot 10^{-15}$ | $-1.82 \cdot 10^{-6}$ | $4.715 \cdot 10^{-21}$ | $4.715 \cdot 10^{-21}$ | $3.606 \cdot 10^{-7}$ |
| DeltadcuG | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $1.584 \cdot 10^{-19}$ | $1.584 \cdot 10^{-19}$ | 0 |
| DeltadcuH | $-3.397 \cdot 10^{-22}$ | $-3.397 \cdot 10^{-22}$ | 0 | $2.956 \cdot 10^{-30}$ | $2.956 \cdot 10^{-30}$ | 0 |
| DeltadcuW | $-1.104 \cdot 10^{-13}$ | $-1.104 \cdot 10^{-13}$ | $-1.812 \cdot 10^{-7}$ | $9.067 \cdot 10^{-21}$ | $9.067 \cdot 10^{-21}$ | $-1.103 \cdot 10^{-7}$ |
| Deltadcud1 | $-1.709 \cdot 10^{-11}$ | $-1.709 \cdot 10^{-11}$ | $3.511 \cdot 10^{-7}$ | $2.154 \cdot 10^{-19}$ | $2.154 \cdot 10^{-19}$ | 0 |
| Deltadcud8 | $1.972 \cdot 10^{-10}$ | $1.972 \cdot 10^{-10}$ | 0 | $4.788 \cdot 10^{-20}$ | $4.788 \cdot 10^{-20}$ | 0 |
| DeltaucHq1 | $-6.393 \cdot 10^{-8}$ | $-6.393 \cdot 10^{-8}$ | $-2.033 \cdot 10^{-7}$ | $1.178 \cdot 10^{-13}$ | $1.178 \cdot 10^{-13}$ | $-8.486 \cdot 10^{-8}$ |
| DeltaucHq3 | $3.193 \cdot 10^{-8}$ | $3.193 \cdot 10^{-8}$ | $-1.879 \cdot 10^{-7}$ | $5.966 \cdot 10^{-14}$ | $5.966 \cdot 10^{-14}$ | $-1.173 \cdot 10^{-7}$ |
| DeltaucdB | $3.062 \cdot 10^{-22}$ | $3.062 \cdot 10^{-22}$ | $1.829 \cdot 10^{-6}$ | $2.028 \cdot 10^{-32}$ | $2.028 \cdot 10^{-32}$ | $5.424 \cdot 10^{-7}$ |
| DeltaucdG | $-2.152 \cdot 10^{-20}$ | $-2.152 \cdot 10^{-20}$ | 0 | $6.231 \cdot 10^{-31}$ | $6.231 \cdot 10^{-31}$ | 0 |
| DeltaucdH | $-1.839 \cdot 10^{-25}$ | $-1.839 \cdot 10^{-25}$ | 0 | $8.6 \cdot 10^{-37}$ | $8.6 \cdot 10^{-37}$ | 0 |
| DeltaucdW | $-8.205 \cdot 10^{-22}$ | $-8.205 \cdot 10^{-22}$ | $-4.997 \cdot 10^{-7}$ | $3.558 \cdot 10^{-32}$ | $3.558 \cdot 10^{-32}$ | $-5.34 \cdot 10^{-7}$ |
| Deltaucqq1 | $-9.032 \cdot 10^{-6}$ | $-9.032 \cdot 10^{-6}$ | $-1.329 \cdot 10^{-7}$ | $2.351 \cdot 10^{-9}$ | $2.351 \cdot 10^{-9}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|-----------------------|
| Deltaucqq3 | $4.528 \cdot 10^{-6}$ | $4.528 \cdot 10^{-6}$ | $-1.325 \cdot 10^{-7}$ | $1.178 \cdot 10^{-9}$ | $1.178 \cdot 10^{-9}$ | 0 |
| Deltaucqq31 | $5.531 \cdot 10^{-5}$ | $5.531 \cdot 10^{-5}$ | $1.808 \cdot 10^{-8}$ | $4.713 \cdot 10^{-9}$ | $4.713 \cdot 10^{-9}$ | 0 |
| DeltaucuB | $1.658 \cdot 10^{-12}$ | $1.658 \cdot 10^{-12}$ | $-6.033 \cdot 10^{-7}$ | $5.325 \cdot 10^{-17}$ | $5.325 \cdot 10^{-17}$ | $3.568 \cdot 10^{-7}$ |
| DeltaucuG | $-5.503 \cdot 10^{-10}$ | $-5.503 \cdot 10^{-10}$ | 0 | $5.507 \cdot 10^{-15}$ | $5.507 \cdot 10^{-15}$ | 0 |
| DeltaucuH | $-6.334 \cdot 10^{-20}$ | $-6.334 \cdot 10^{-20}$ | 0 | $1.028 \cdot 10^{-25}$ | $1.028 \cdot 10^{-25}$ | 0 |
| DeltaucuW | $-1.054 \cdot 10^{-11}$ | $-1.054 \cdot 10^{-11}$ | $-2.847 \cdot 10^{-7}$ | $9.709 \cdot 10^{-16}$ | $9.709 \cdot 10^{-16}$ | $-1.03 \cdot 10^{-7}$ |
| Deltaucud1 | $-8.442 \cdot 10^{-7}$ | $-8.442 \cdot 10^{-7}$ | $3.554 \cdot 10^{-7}$ | $7.872 \cdot 10^{-10}$ | $7.872 \cdot 10^{-10}$ | 0 |
| Deltaucud8 | $1.458 \cdot 10^{-5}$ | $1.458 \cdot 10^{-5}$ | 0 | $2.619 \cdot 10^{-10}$ | $2.619 \cdot 10^{-10}$ | 0 |
| sm | 0 | 0 | 0 | 0.4924 | 0.4924 | 0 |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-5.185 \cdot 10^{-14}$ | $-5.185 \cdot 10^{-14}$ | $7.328 \cdot 10^{-7}$ | $1.876 \cdot 10^{-24}$ | $1.876 \cdot 10^{-24}$ | $6.395 \cdot 10^{-7}$ |
| Deltaced | $1.072 \cdot 10^{-12}$ | $1.072 \cdot 10^{-12}$ | $3.731 \cdot 10^{-7}$ | $9.012 \cdot 10^{-21}$ | $9.012 \cdot 10^{-21}$ | 0 |
| DeltaclD | $6.07 \cdot 10^{-12}$ | $6.07 \cdot 10^{-12}$ | $3.625 \cdot 10^{-7}$ | $1.027 \cdot 10^{-19}$ | $1.027 \cdot 10^{-19}$ | 0 |
| DeltadcHq1 | $1.366 \cdot 10^{-13}$ | $1.366 \cdot 10^{-13}$ | $-5.125 \cdot 10^{-7}$ | $2.379 \cdot 10^{-24}$ | $2.379 \cdot 10^{-24}$ | $-5.885 \cdot 10^{-7}$ |
| DeltadcHq3 | $1.366 \cdot 10^{-13}$ | $1.366 \cdot 10^{-13}$ | $-5.125 \cdot 10^{-7}$ | $2.379 \cdot 10^{-24}$ | $2.379 \cdot 10^{-24}$ | $-5.885 \cdot 10^{-7}$ |
| DeltadcdB | $1.069 \cdot 10^{-21}$ | $1.069 \cdot 10^{-21}$ | $2.805 \cdot 10^{-7}$ | $7.279 \cdot 10^{-31}$ | $7.279 \cdot 10^{-31}$ | $3.572 \cdot 10^{-7}$ |
| DeltadcdH | $-4.629 \cdot 10^{-32}$ | $-4.629 \cdot 10^{-32}$ | 0 | $1.014 \cdot 10^{-42}$ | $1.014 \cdot 10^{-42}$ | 0 |
| DeltadcdW | $-1.234 \cdot 10^{-21}$ | $-1.234 \cdot 10^{-21}$ | $-2.432 \cdot 10^{-7}$ | $1.752 \cdot 10^{-31}$ | $1.752 \cdot 10^{-31}$ | $-1.142 \cdot 10^{-7}$ |
| Deltadcledq | $-1.502 \cdot 10^{-30}$ | $-1.502 \cdot 10^{-30}$ | 0 | $5.347 \cdot 10^{-40}$ | $5.347 \cdot 10^{-40}$ | 0 |
| Deltadclq1 | $3.026 \cdot 10^{-11}$ | $3.026 \cdot 10^{-11}$ | $-1.652 \cdot 10^{-7}$ | $1.146 \cdot 10^{-19}$ | $1.146 \cdot 10^{-19}$ | 0 |
| Deltadclq3 | $2.379 \cdot 10^{-12}$ | $2.379 \cdot 10^{-12}$ | $-1.681 \cdot 10^{-7}$ | $9.012 \cdot 10^{-21}$ | $9.012 \cdot 10^{-21}$ | 0 |
| Deltadcqe | $-6.226 \cdot 10^{-12}$ | $-6.226 \cdot 10^{-12}$ | $3.533 \cdot 10^{-7}$ | $1.027 \cdot 10^{-19}$ | $1.027 \cdot 10^{-19}$ | 0 |
| DeltaucHq1 | $7.491 \cdot 10^{-15}$ | $7.491 \cdot 10^{-15}$ | $3.471 \cdot 10^{-7}$ | $8.034 \cdot 10^{-26}$ | $8.034 \cdot 10^{-26}$ | $5.726 \cdot 10^{-7}$ |
| DeltaucHq3 | $2.922 \cdot 10^{-14}$ | $2.922 \cdot 10^{-14}$ | $-4.449 \cdot 10^{-7}$ | $1.089 \cdot 10^{-25}$ | $1.089 \cdot 10^{-25}$ | $-5.511 \cdot 10^{-7}$ |
| DeltaucdB | $3.816 \cdot 10^{-23}$ | $3.816 \cdot 10^{-23}$ | $1.73 \cdot 10^{-6}$ | $3.896 \cdot 10^{-32}$ | $3.896 \cdot 10^{-32}$ | $5.903 \cdot 10^{-7}$ |

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|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucdH | $-9.999 \cdot 10^{-33}$ | $-9.999 \cdot 10^{-33}$ | 0 | $4.641 \cdot 10^{-44}$ | $4.641 \cdot 10^{-44}$ | 0 |
| DeltaucdW | $-1.112 \cdot 10^{-22}$ | $-1.112 \cdot 10^{-22}$ | $-2.699 \cdot 10^{-7}$ | $2.576 \cdot 10^{-32}$ | $2.576 \cdot 10^{-32}$ | $-9.703 \cdot 10^{-7}$ |
| Deltaucledq | $-3.198 \cdot 10^{-31}$ | $-3.198 \cdot 10^{-31}$ | 0 | $2.447 \cdot 10^{-41}$ | $2.447 \cdot 10^{-41}$ | 0 |
| Deltauclq1 | $6.473 \cdot 10^{-12}$ | $6.473 \cdot 10^{-12}$ | $-1.699 \cdot 10^{-7}$ | $5.246 \cdot 10^{-21}$ | $5.246 \cdot 10^{-21}$ | 0 |
| Deltauclq3 | $5.089 \cdot 10^{-13}$ | $5.089 \cdot 10^{-13}$ | $-1.768 \cdot 10^{-7}$ | $4.124 \cdot 10^{-22}$ | $4.124 \cdot 10^{-22}$ | 0 |
| Deltaucqe | $-1.332 \cdot 10^{-12}$ | $-1.332 \cdot 10^{-12}$ | $3.003 \cdot 10^{-7}$ | $4.7 \cdot 10^{-21}$ | $4.7 \cdot 10^{-21}$ | 0 |
| sm | 0 | 0 | 0 | 0.003209 | 0.003209 | $-1.558 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $-1.613 \cdot 10^{-9}$ | $-1.613 \cdot 10^{-9}$ | $3.72 \cdot 10^{-7}$ | $3.157 \cdot 10^{-14}$ | $3.157 \cdot 10^{-14}$ | 0 |
| Delta1dcqd8 | $1.134 \cdot 10^{-7}$ | $1.134 \cdot 10^{-7}$ | 0 | $1.089 \cdot 10^{-14}$ | $1.089 \cdot 10^{-14}$ | 0 |
| Delta1ucqd1 | $-4.659 \cdot 10^{-7}$ | $-4.659 \cdot 10^{-7}$ | $3.435 \cdot 10^{-7}$ | $1.705 \cdot 10^{-9}$ | $1.705 \cdot 10^{-9}$ | 0 |
| Delta1ucqd8 | $1.359 \cdot 10^{-5}$ | $1.359 \cdot 10^{-5}$ | 0 | $2.44 \cdot 10^{-10}$ | $2.44 \cdot 10^{-10}$ | 0 |
| Delta2cqd1 | $-2.504 \cdot 10^{-9}$ | $-2.504 \cdot 10^{-9}$ | $3.594 \cdot 10^{-7}$ | $4.902 \cdot 10^{-14}$ | $4.902 \cdot 10^{-14}$ | 0 |
| Delta2cqd8 | $7.304 \cdot 10^{-8}$ | $7.304 \cdot 10^{-8}$ | 0 | $7.016 \cdot 10^{-15}$ | $7.016 \cdot 10^{-15}$ | 0 |
| DeltacHd | $-1.826 \cdot 10^{-11}$ | $-1.826 \cdot 10^{-11}$ | $2.738 \cdot 10^{-7}$ | $2.464 \cdot 10^{-18}$ | $2.464 \cdot 10^{-18}$ | $-1.218 \cdot 10^{-7}$ |
| Deltacdd | $4.096 \cdot 10^{-10}$ | $4.096 \cdot 10^{-10}$ | $3.662 \cdot 10^{-7}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |
| Deltacdd1 | $5.401 \cdot 10^{-8}$ | $5.401 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |
| DeltadcHq1 | $2.553 \cdot 10^{-11}$ | $2.553 \cdot 10^{-11}$ | $-7.834 \cdot 10^{-8}$ | $2.894 \cdot 10^{-19}$ | $2.894 \cdot 10^{-19}$ | $1.037 \cdot 10^{-7}$ |
| DeltadcHq3 | $2.553 \cdot 10^{-11}$ | $2.553 \cdot 10^{-11}$ | $-7.834 \cdot 10^{-8}$ | $2.894 \cdot 10^{-19}$ | $2.894 \cdot 10^{-19}$ | $1.037 \cdot 10^{-7}$ |
| DeltadcdB | $-2.85 \cdot 10^{-17}$ | $-2.85 \cdot 10^{-17}$ | $7.018 \cdot 10^{-8}$ | $1.763 \cdot 10^{-23}$ | $1.763 \cdot 10^{-23}$ | $3.97 \cdot 10^{-7}$ |
| DeltadcdG | $-1.582 \cdot 10^{-14}$ | $-1.582 \cdot 10^{-14}$ | 0 | $8.715 \cdot 10^{-22}$ | $8.715 \cdot 10^{-22}$ | 0 |
| DeltadcdH | $-1.834 \cdot 10^{-24}$ | $-1.834 \cdot 10^{-24}$ | 0 | $1.593 \cdot 10^{-32}$ | $1.593 \cdot 10^{-32}$ | 0 |
| DeltadcdW | $-5.967 \cdot 10^{-16}$ | $-5.967 \cdot 10^{-16}$ | $-1.508 \cdot 10^{-7}$ | $7.443 \cdot 10^{-23}$ | $7.443 \cdot 10^{-23}$ | $-1.209 \cdot 10^{-7}$ |
| Deltadcqq1 | $3.144 \cdot 10^{-9}$ | $3.144 \cdot 10^{-9}$ | $-9.541 \cdot 10^{-8}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |
| Deltadcqq11 | $5.66 \cdot 10^{-8}$ | $5.66 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Deltadcqq3 | $3.144 \cdot 10^{-9}$ | $3.144 \cdot 10^{-9}$ | $-9.541 \cdot 10^{-8}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |
| Deltadcqq31 | $5.66 \cdot 10^{-8}$ | $5.66 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |
| DeltaucHq1 | $1.213 \cdot 10^{-8}$ | $1.213 \cdot 10^{-8}$ | $-1.648 \cdot 10^{-7}$ | $2.207 \cdot 10^{-14}$ | $2.207 \cdot 10^{-14}$ | $-4.531 \cdot 10^{-8}$ |
| DeltaucHq3 | $4.749 \cdot 10^{-9}$ | $4.749 \cdot 10^{-9}$ | $-4.211 \cdot 10^{-8}$ | $1.003 \cdot 10^{-14}$ | $1.003 \cdot 10^{-14}$ | $1.994 \cdot 10^{-7}$ |
| DeltaucdB | $-7.876 \cdot 10^{-15}$ | $-7.876 \cdot 10^{-15}$ | $1.27 \cdot 10^{-8}$ | $8.287 \cdot 10^{-19}$ | $8.287 \cdot 10^{-19}$ | $3.499 \cdot 10^{-7}$ |
| DeltaucdG | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $2.243 \cdot 10^{-17}$ | $2.243 \cdot 10^{-17}$ | 0 |
| DeltaucdH | $-3.405 \cdot 10^{-22}$ | $-3.405 \cdot 10^{-22}$ | 0 | $5.512 \cdot 10^{-28}$ | $5.512 \cdot 10^{-28}$ | 0 |
| DeltaucdW | $-4.422 \cdot 10^{-14}$ | $-4.422 \cdot 10^{-14}$ | $-2.035 \cdot 10^{-7}$ | $4.907 \cdot 10^{-18}$ | $4.907 \cdot 10^{-18}$ | $-1.223 \cdot 10^{-7}$ |
| Deltaucqq1 | $1.659 \cdot 10^{-6}$ | $1.659 \cdot 10^{-6}$ | $-1.206 \cdot 10^{-7}$ | $4.03 \cdot 10^{-10}$ | $4.03 \cdot 10^{-10}$ | 0 |
| Deltaucqq11 | $1.053 \cdot 10^{-5}$ | $1.053 \cdot 10^{-5}$ | 0 | $4.03 \cdot 10^{-10}$ | $4.03 \cdot 10^{-10}$ | 0 |
| Deltaucqq3 | $5.849 \cdot 10^{-7}$ | $5.849 \cdot 10^{-7}$ | $-8.548 \cdot 10^{-8}$ | $1.421 \cdot 10^{-10}$ | $1.421 \cdot 10^{-10}$ | 0 |
| Deltaucqq31 | $3.712 \cdot 10^{-6}$ | $3.712 \cdot 10^{-6}$ | 0 | $1.421 \cdot 10^{-10}$ | $1.421 \cdot 10^{-10}$ | 0 |
| sm | 0 | 0 | 0 | 0.7427 | 0.7427 | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|-------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 1.248 | 1.248 | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.02347 | 0.02347 | $-2.557 \cdot 10^{-7}$ |

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

| | | | interference | | | square |
|----|------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.02161 | 0.02161 | $9.255 \cdot 10^{-8}$ |

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

| | | | interference | | | square |
|----|------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.02274 | 0.02274 | $6.157 \cdot 10^{-7}$ |

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

| | | | interference | | | square |
|----|------|------|-------------------------------|----------|----------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.007851 | 0.007851 | $5.095 \cdot 10^{-7}$ |

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

| | | | interference | | | square |
|----|------|------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.05726 | 0.05726 | $6.112 \cdot 10^{-7}$ |

1.69 $gg \rightarrow gg$

| | | | interference | | | square |
|----|------|------|-------------------------------|-------|-------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 33.65 | 33.65 | 0 |

1.70 $gg \rightarrow ggg$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|----------|----------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.004666 | 0.004666 | 0 |

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

| | interference | | | square | | |
|-----------|------------------------|------------------------|-------------------------------|-----------------------|-----------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuG | $-7.417 \cdot 10^{-5}$ | $-7.417 \cdot 10^{-5}$ | 0 | $2.819 \cdot 10^{-8}$ | $2.819 \cdot 10^{-8}$ | 0 |
| DeltaucG | -0.1267 | -0.1267 | 0 | 0.08226 | 0.08226 | 0 |
| sm | 0 | 0 | 0 | 5.447 | 5.447 | 0 |

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

| | interference | | | square | | |
|-----------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcuG | $-1.173 \cdot 10^{-19}$ | $-1.173 \cdot 10^{-19}$ | 0 | $8.306 \cdot 10^{-30}$ | $8.306 \cdot 10^{-30}$ | 0 |
| DeltaucG | $-2.509 \cdot 10^{-20}$ | $-2.509 \cdot 10^{-20}$ | 0 | $3.801 \cdot 10^{-31}$ | $3.801 \cdot 10^{-31}$ | 0 |
| sm | 0 | 0 | 0 | 0.3679 | 0.3679 | 0 |

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

| | interference | | | square | | |
|----------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHd | $-1.345 \cdot 10^{-11}$ | $-1.345 \cdot 10^{-11}$ | $3.716 \cdot 10^{-7}$ | $7.473 \cdot 10^{-19}$ | $7.473 \cdot 10^{-19}$ | 0 |
| Deltacld | $2.663 \cdot 10^{-10}$ | $2.663 \cdot 10^{-10}$ | $3.755 \cdot 10^{-7}$ | $1.764 \cdot 10^{-15}$ | $1.764 \cdot 10^{-15}$ | 0 |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcHq1 | $2.608 \cdot 10^{-11}$ | $2.608 \cdot 10^{-11}$ | $-3.835 \cdot 10^{-8}$ | $2.671 \cdot 10^{-19}$ | $2.671 \cdot 10^{-19}$ | 0 |
| DeltadcHq3 | $2.608 \cdot 10^{-11}$ | $2.608 \cdot 10^{-11}$ | $-3.835 \cdot 10^{-8}$ | $2.671 \cdot 10^{-19}$ | $2.671 \cdot 10^{-19}$ | 0 |
| DeltadcdB | $-3.589 \cdot 10^{-17}$ | $-3.589 \cdot 10^{-17}$ | $-8.359 \cdot 10^{-8}$ | $1.432 \cdot 10^{-23}$ | $1.432 \cdot 10^{-23}$ | $3.491 \cdot 10^{-7}$ |
| DeltadcdW | $-9.497 \cdot 10^{-18}$ | $-9.497 \cdot 10^{-18}$ | $-1.801 \cdot 10^{-6}$ | $3.059 \cdot 10^{-23}$ | $3.059 \cdot 10^{-23}$ | $-9.806 \cdot 10^{-8}$ |
| Deltadclq1 | $-3.11 \cdot 10^{-9}$ | $-3.11 \cdot 10^{-9}$ | $-6.431 \cdot 10^{-8}$ | $3.799 \cdot 10^{-15}$ | $3.799 \cdot 10^{-15}$ | 0 |
| Deltadclq3 | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | $-8.11 \cdot 10^{-8}$ | $1.506 \cdot 10^{-14}$ | $1.506 \cdot 10^{-14}$ | 0 |
| DeltaucHq1 | $1.928 \cdot 10^{-8}$ | $1.928 \cdot 10^{-8}$ | $-5.187 \cdot 10^{-8}$ | $3.683 \cdot 10^{-14}$ | $3.683 \cdot 10^{-14}$ | 0 |
| DeltaucHq3 | $4.863 \cdot 10^{-9}$ | $4.863 \cdot 10^{-9}$ | $-6.169 \cdot 10^{-8}$ | $9.29 \cdot 10^{-15}$ | $9.29 \cdot 10^{-15}$ | 0 |
| DeltaucdB | $-1.805 \cdot 10^{-14}$ | $-1.805 \cdot 10^{-14}$ | $1.108 \cdot 10^{-7}$ | $4.041 \cdot 10^{-19}$ | $4.041 \cdot 10^{-19}$ | $3.712 \cdot 10^{-7}$ |
| DeltaucdW | $-3.271 \cdot 10^{-14}$ | $-3.271 \cdot 10^{-14}$ | $-1.223 \cdot 10^{-7}$ | $1.326 \cdot 10^{-18}$ | $1.326 \cdot 10^{-18}$ | $-1.508 \cdot 10^{-7}$ |
| Deltauclq1 | $-5.799 \cdot 10^{-7}$ | $-5.799 \cdot 10^{-7}$ | $-6.897 \cdot 10^{-8}$ | $1.321 \cdot 10^{-10}$ | $1.321 \cdot 10^{-10}$ | 0 |
| Deltauclq3 | $2.299 \cdot 10^{-6}$ | $2.299 \cdot 10^{-6}$ | $-4.349 \cdot 10^{-8}$ | $5.239 \cdot 10^{-10}$ | $5.239 \cdot 10^{-10}$ | 0 |
| sm | 0 | 0 | 0 | 0.000262 | 0.000262 | $1.908 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $2.28 \cdot 10^{-8}$ | $2.28 \cdot 10^{-8}$ | $3.508 \cdot 10^{-7}$ | $1.797 \cdot 10^{-13}$ | $1.797 \cdot 10^{-13}$ | 0 |
| Delta1dcqd8 | -0.0003702 | -0.0003702 | 0 | $3.618 \cdot 10^{-14}$ | $3.618 \cdot 10^{-14}$ | 0 |
| Delta1ucqd1 | -0.001877 | -0.001877 | $2.664 \cdot 10^{-7}$ | $5.663 \cdot 10^{-9}$ | $5.663 \cdot 10^{-9}$ | 0 |
| Delta1ucqd8 | -0.0002107 | -0.0002107 | 0 | $1.388 \cdot 10^{-9}$ | $1.388 \cdot 10^{-9}$ | 0 |
| Delta2cqd1 | $-1.007 \cdot 10^{-5}$ | $-1.007 \cdot 10^{-5}$ | $1.987 \cdot 10^{-7}$ | $1.628 \cdot 10^{-13}$ | $1.628 \cdot 10^{-13}$ | 0 |
| Delta2cqd8 | $-1.13 \cdot 10^{-6}$ | $-1.13 \cdot 10^{-6}$ | 0 | $3.992 \cdot 10^{-14}$ | $3.992 \cdot 10^{-14}$ | 0 |
| DeltacHd | $6.888 \cdot 10^{-6}$ | $6.888 \cdot 10^{-6}$ | $8.711 \cdot 10^{-8}$ | $9.835 \cdot 10^{-14}$ | $9.835 \cdot 10^{-14}$ | $-8.134 \cdot 10^{-8}$ |
| Deltacdd | -0.0007549 | -0.0007549 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |
| Deltacdd1 | $-7.512 \cdot 10^{-7}$ | $-7.512 \cdot 10^{-7}$ | 0 | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |
| DeltadcHq1 | $1.091 \cdot 10^{-5}$ | $1.091 \cdot 10^{-5}$ | 0 | $1.859 \cdot 10^{-13}$ | $1.859 \cdot 10^{-13}$ | $-1.076 \cdot 10^{-7}$ |
| DeltadcHq3 | $1.091 \cdot 10^{-5}$ | $1.091 \cdot 10^{-5}$ | 0 | $1.859 \cdot 10^{-13}$ | $1.859 \cdot 10^{-13}$ | $-1.076 \cdot 10^{-7}$ |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdB | $-2.29 \cdot 10^{-12}$ | $-2.29 \cdot 10^{-12}$ | $1.747 \cdot 10^{-7}$ | $1.614 \cdot 10^{-19}$ | $1.614 \cdot 10^{-19}$ | $1.239 \cdot 10^{-7}$ |
| DeltadcdG | $-7.167 \cdot 10^{-14}$ | $-7.167 \cdot 10^{-14}$ | 0 | $1.392 \cdot 10^{-20}$ | $1.392 \cdot 10^{-20}$ | 0 |
| DeltadcdH | $2.246 \cdot 10^{-14}$ | $2.246 \cdot 10^{-14}$ | 0 | $5.516 \cdot 10^{-29}$ | $5.516 \cdot 10^{-29}$ | 0 |
| DeltadcdW | $-6.783 \cdot 10^{-15}$ | $-6.783 \cdot 10^{-15}$ | $-5.897 \cdot 10^{-8}$ | $8.614 \cdot 10^{-22}$ | $8.614 \cdot 10^{-22}$ | $-1.045 \cdot 10^{-7}$ |
| Deltadcqq1 | -0.0007702 | -0.0007702 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |
| Deltadcqq11 | $-8.851 \cdot 10^{-7}$ | $-8.851 \cdot 10^{-7}$ | $-1.13 \cdot 10^{-8}$ | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |
| Deltadcqq3 | -0.0007702 | -0.0007702 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |
| Deltadcqq31 | $-8.851 \cdot 10^{-7}$ | $-8.851 \cdot 10^{-7}$ | $-1.13 \cdot 10^{-8}$ | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |
| DeltaucHq1 | $-2.164 \cdot 10^{-6}$ | $-2.164 \cdot 10^{-6}$ | $-4.62 \cdot 10^{-8}$ | $2.189 \cdot 10^{-12}$ | $2.189 \cdot 10^{-12}$ | $-9.138 \cdot 10^{-8}$ |
| DeltaucHq3 | 0.002034 | 0.002034 | $-4.917 \cdot 10^{-8}$ | $6.464 \cdot 10^{-9}$ | $6.464 \cdot 10^{-9}$ | $-1.083 \cdot 10^{-7}$ |
| DeltaucdB | $-2.483 \cdot 10^{-13}$ | $-2.482 \cdot 10^{-13}$ | $2.82 \cdot 10^{-7}$ | $1.887 \cdot 10^{-17}$ | $1.887 \cdot 10^{-17}$ | $3.709 \cdot 10^{-7}$ |
| DeltaucdG | $-2.748 \cdot 10^{-9}$ | $-2.748 \cdot 10^{-9}$ | $-3.64 \cdot 10^{-8}$ | $2.537 \cdot 10^{-13}$ | $2.537 \cdot 10^{-13}$ | 0 |
| DeltaucdH | $1.219 \cdot 10^{-9}$ | $1.219 \cdot 10^{-9}$ | 0 | $8.95 \cdot 10^{-25}$ | $8.95 \cdot 10^{-25}$ | 0 |
| DeltaucdW | $2.394 \cdot 10^{-12}$ | $2.394 \cdot 10^{-12}$ | $-8.354 \cdot 10^{-8}$ | $1.108 \cdot 10^{-16}$ | $1.108 \cdot 10^{-16}$ | $-1.806 \cdot 10^{-7}$ |
| Deltaucqq1 | -0.0001651 | -0.0001651 | 0 | $1.39 \cdot 10^{-8}$ | $1.39 \cdot 10^{-8}$ | 0 |
| Deltaucqq11 | -0.0001651 | -0.0001651 | 0 | $1.39 \cdot 10^{-8}$ | $1.39 \cdot 10^{-8}$ | 0 |
| Deltaucqq3 | -0.1436 | -0.1436 | 0 | $3.014 \cdot 10^{-8}$ | $3.014 \cdot 10^{-8}$ | 0 |
| Deltaucqq31 | -0.1436 | -0.1436 | 0 | $3.014 \cdot 10^{-8}$ | $3.014 \cdot 10^{-8}$ | 0 |
| sm | 0 | 0 | 0 | 2.561 | 2.561 | 0 |

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

| | interference | | | square | | |
|------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHu | $9.713 \cdot 10^{-5}$ | $9.713 \cdot 10^{-5}$ | $4.427 \cdot 10^{-7}$ | $1.081 \cdot 10^{-5}$ | $1.081 \cdot 10^{-5}$ | 0 |
| Deltaclu | -0.01939 | -0.01939 | $4.127 \cdot 10^{-7}$ | 0.2429 | 0.2429 | 0 |
| DeltadcHq1 | $-3.136 \cdot 10^{-8}$ | $-3.136 \cdot 10^{-8}$ | $-2.232 \cdot 10^{-7}$ | $9.009 \cdot 10^{-13}$ | $9.009 \cdot 10^{-13}$ | 0 |
| DeltadcHq3 | $3.136 \cdot 10^{-8}$ | $3.136 \cdot 10^{-8}$ | $-2.232 \cdot 10^{-7}$ | $9.009 \cdot 10^{-13}$ | $9.009 \cdot 10^{-13}$ | 0 |
| Deltadclq1 | $3.74 \cdot 10^{-6}$ | $3.74 \cdot 10^{-6}$ | $-2.406 \cdot 10^{-7}$ | $1.281 \cdot 10^{-8}$ | $1.281 \cdot 10^{-8}$ | 0 |

| | | | | | | |
|------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Deltadclq3 | $4.768 \cdot 10^{-7}$ | $4.768 \cdot 10^{-7}$ | $-7.132 \cdot 10^{-7}$ | $2.938 \cdot 10^{-9}$ | $2.938 \cdot 10^{-9}$ | 0 |
| DeltadcuB | $9.453 \cdot 10^{-8}$ | $9.453 \cdot 10^{-8}$ | $-1.206 \cdot 10^{-6}$ | $2.434 \cdot 10^{-10}$ | $2.434 \cdot 10^{-10}$ | $3.698 \cdot 10^{-7}$ |
| DeltadcuW | $3.275 \cdot 10^{-7}$ | $3.275 \cdot 10^{-7}$ | $6.718 \cdot 10^{-7}$ | $4.835 \cdot 10^{-10}$ | $4.835 \cdot 10^{-10}$ | $-1.241 \cdot 10^{-7}$ |
| DeltaucHq1 | $-6.828 \cdot 10^{-6}$ | $-6.828 \cdot 10^{-6}$ | $-6.883 \cdot 10^{-7}$ | $6.027 \cdot 10^{-7}$ | $6.027 \cdot 10^{-7}$ | 0 |
| DeltaucHq3 | $5.357 \cdot 10^{-5}$ | $5.357 \cdot 10^{-5}$ | $-2.427 \cdot 10^{-7}$ | $2.629 \cdot 10^{-6}$ | $2.629 \cdot 10^{-6}$ | 0 |
| Deltauclq1 | 0.006389 | 0.006389 | $-2.348 \cdot 10^{-7}$ | 0.03739 | 0.03739 | 0 |
| Deltauclq3 | 0.0008144 | 0.0008144 | $-6.876 \cdot 10^{-7}$ | 0.008572 | 0.008572 | 0 |
| DeltaucuB | -0.0003088 | -0.0003088 | $9.068 \cdot 10^{-7}$ | 0.0004299 | 0.0004299 | $3.489 \cdot 10^{-7}$ |
| DeltaucuW | -0.0002925 | -0.0002925 | $-1.47 \cdot 10^{-6}$ | 0.00233 | 0.00233 | $-8.583 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 0.0006528 | 0.0006528 | 0 |

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

| | interference | | | square | | |
|--------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltacHu | $6.66 \cdot 10^{-5}$ | $6.66 \cdot 10^{-5}$ | $1.051 \cdot 10^{-6}$ | $3.053 \cdot 10^{-6}$ | $3.053 \cdot 10^{-6}$ | $2.948 \cdot 10^{-7}$ |
| Deltaceu | -0.02399 | -0.02399 | $3.335 \cdot 10^{-7}$ | 0.1356 | 0.1356 | 0 |
| Deltaclu | -0.003713 | -0.003713 | $1.077 \cdot 10^{-7}$ | 0.01662 | 0.01662 | 0 |
| DeltadcHq1 | $-7.806 \cdot 10^{-8}$ | $-7.806 \cdot 10^{-8}$ | $-4.74 \cdot 10^{-7}$ | $1.186 \cdot 10^{-12}$ | $1.186 \cdot 10^{-12}$ | $-3.372 \cdot 10^{-7}$ |
| DeltadcHq3 | $7.806 \cdot 10^{-8}$ | $7.806 \cdot 10^{-8}$ | $-4.74 \cdot 10^{-7}$ | $1.186 \cdot 10^{-12}$ | $1.186 \cdot 10^{-12}$ | $-3.372 \cdot 10^{-7}$ |
| Deltadclequ1 | $1.953 \cdot 10^{-8}$ | $1.953 \cdot 10^{-8}$ | 0 | $5.685 \cdot 10^{-12}$ | $5.685 \cdot 10^{-12}$ | 0 |
| Deltadclequ3 | $-1.93 \cdot 10^{-8}$ | $-1.93 \cdot 10^{-8}$ | 0 | $1.184 \cdot 10^{-11}$ | $1.184 \cdot 10^{-11}$ | 0 |
| Deltadclq1 | $-1.923 \cdot 10^{-5}$ | $-1.923 \cdot 10^{-5}$ | $-1.04 \cdot 10^{-7}$ | $4.647 \cdot 10^{-8}$ | $4.647 \cdot 10^{-8}$ | 0 |
| Deltadclq3 | $2.929 \cdot 10^{-5}$ | $2.929 \cdot 10^{-5}$ | $-6.828 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | 0 |
| Deltadcqe | $-1.397 \cdot 10^{-6}$ | $-1.397 \cdot 10^{-6}$ | $3.58 \cdot 10^{-7}$ | $5.695 \cdot 10^{-9}$ | $5.695 \cdot 10^{-9}$ | 0 |
| DeltadcuB | $-7.785 \cdot 10^{-7}$ | $-7.785 \cdot 10^{-7}$ | $5.138 \cdot 10^{-7}$ | $2.886 \cdot 10^{-10}$ | $2.886 \cdot 10^{-10}$ | $3.812 \cdot 10^{-7}$ |
| DeltadcuH | $-5.747 \cdot 10^{-10}$ | $-5.747 \cdot 10^{-10}$ | 0 | $1.014 \cdot 10^{-14}$ | $1.014 \cdot 10^{-14}$ | 0 |
| DeltadcuW | $-1.534 \cdot 10^{-6}$ | $-1.534 \cdot 10^{-6}$ | $-6.518 \cdot 10^{-8}$ | $5.945 \cdot 10^{-10}$ | $5.945 \cdot 10^{-10}$ | $-1.177 \cdot 10^{-7}$ |
| DeltaucHq1 | -0.0002152 | -0.0002152 | $-4.181 \cdot 10^{-7}$ | $4.446 \cdot 10^{-6}$ | $4.446 \cdot 10^{-6}$ | $-5.398 \cdot 10^{-7}$ |
| DeltaucHq3 | 0.0001333 | 0.0001333 | $-4.5 \cdot 10^{-7}$ | $3.461 \cdot 10^{-6}$ | $3.461 \cdot 10^{-6}$ | $-3.467 \cdot 10^{-7}$ |

| | | | | | | |
|--------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|
| Deltauclequ1 | $3.336 \cdot 10^{-5}$ | $3.336 \cdot 10^{-5}$ | 0 | $1.659 \cdot 10^{-5}$ | $1.659 \cdot 10^{-5}$ | 0 |
| Deltauclequ3 | $-7.541 \cdot 10^{-5}$ | $-7.541 \cdot 10^{-5}$ | $-1.326 \cdot 10^{-8}$ | 0.0001039 | 0.0001039 | 0 |
| Deltauclq1 | -0.03285 | -0.03285 | $-6.089 \cdot 10^{-8}$ | 0.1356 | 0.1356 | 0 |
| Deltauclq3 | 0.05004 | 0.05004 | $-5.996 \cdot 10^{-8}$ | 0.2084 | 0.2084 | 0 |
| Deltaucqe | -0.002386 | -0.002386 | $3.772 \cdot 10^{-7}$ | 0.01662 | 0.01662 | 0 |
| DeltaucuB | -0.003503 | -0.003503 | $3.996 \cdot 10^{-7}$ | 0.002623 | 0.002623 | $3.812 \cdot 10^{-7}$ |
| DeltaucuH | $-9.816 \cdot 10^{-7}$ | $-9.816 \cdot 10^{-7}$ | 0 | $2.958 \cdot 10^{-8}$ | $2.958 \cdot 10^{-8}$ | 0 |
| DeltaucuW | -0.001188 | -0.001188 | $3.366 \cdot 10^{-7}$ | 0.0005568 | 0.0005568 | $-1.257 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.0008981 | 0.0008981 | $6.458 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqu1 | $1.447 \cdot 10^{-5}$ | $1.447 \cdot 10^{-5}$ | $3.455 \cdot 10^{-7}$ | $2.575 \cdot 10^{-7}$ | $2.575 \cdot 10^{-7}$ | 0 |
| Delta1dcqu8 | $8.472 \cdot 10^{-5}$ | $8.472 \cdot 10^{-5}$ | 0 | $1.427 \cdot 10^{-8}$ | $1.427 \cdot 10^{-8}$ | 0 |
| Delta1ucqu1 | 0.008681 | 0.008681 | $3.571 \cdot 10^{-7}$ | 0.1874 | 0.1874 | 0 |
| Delta1ucqu8 | 0.5218 | 0.5218 | 0 | 0.167 | 0.167 | 0 |
| Delta2cqu1 | 0.01175 | 0.01175 | $1.703 \cdot 10^{-7}$ | 0.1874 | 0.1874 | 0 |
| Delta2cqu8 | 0.1447 | 0.1447 | 0 | 0.04163 | 0.04163 | 0 |
| DeltacHu | $-9.729 \cdot 10^{-5}$ | $-9.729 \cdot 10^{-5}$ | $-1.131 \cdot 10^{-7}$ | $1.846 \cdot 10^{-5}$ | $1.846 \cdot 10^{-5}$ | $-3.25 \cdot 10^{-7}$ |
| Deltacuu | 0.01003 | 0.01003 | $2.992 \cdot 10^{-7}$ | 0.07942 | 0.07942 | 0 |
| Deltacuu1 | 0.1483 | 0.1483 | 0 | 0.07942 | 0.07942 | 0 |
| DeltadcHq1 | $-3.484 \cdot 10^{-8}$ | $-3.484 \cdot 10^{-8}$ | $-1.004 \cdot 10^{-6}$ | $2.177 \cdot 10^{-12}$ | $2.177 \cdot 10^{-12}$ | $2.756 \cdot 10^{-7}$ |
| DeltadcHq3 | $3.484 \cdot 10^{-8}$ | $3.484 \cdot 10^{-8}$ | $-1.004 \cdot 10^{-6}$ | $2.177 \cdot 10^{-12}$ | $2.177 \cdot 10^{-12}$ | $2.756 \cdot 10^{-7}$ |
| Deltadcqq1 | $1.08 \cdot 10^{-5}$ | $1.08 \cdot 10^{-5}$ | $-9.259 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | 0 |
| Deltadcqq11 | 0.0003021 | 0.0003021 | 0 | $1.159 \cdot 10^{-7}$ | $1.159 \cdot 10^{-7}$ | 0 |
| Deltadcqq3 | $1.08 \cdot 10^{-5}$ | $1.08 \cdot 10^{-5}$ | $-9.259 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | 0 |
| Deltadcqq31 | 0.0003021 | 0.0003021 | 0 | $1.159 \cdot 10^{-7}$ | $1.159 \cdot 10^{-7}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcuB | $-9.169 \cdot 10^{-7}$ | $-9.169 \cdot 10^{-7}$ | $4.69 \cdot 10^{-7}$ | $7.765 \cdot 10^{-10}$ | $7.765 \cdot 10^{-10}$ | $3.606 \cdot 10^{-7}$ |
| DeltadcuG | -0.0001136 | -0.0001136 | 0 | $1.268 \cdot 10^{-8}$ | $1.268 \cdot 10^{-8}$ | 0 |
| DeltadcuH | $-8.913 \cdot 10^{-10}$ | $-8.913 \cdot 10^{-10}$ | 0 | $1.555 \cdot 10^{-14}$ | $1.555 \cdot 10^{-14}$ | 0 |
| DeltadcuW | $-3.165 \cdot 10^{-6}$ | $-3.165 \cdot 10^{-6}$ | $-9.478 \cdot 10^{-8}$ | $2.441 \cdot 10^{-9}$ | $2.441 \cdot 10^{-9}$ | $-1.229 \cdot 10^{-7}$ |
| DeltaucHq1 | -0.0004163 | -0.0004163 | $-3.122 \cdot 10^{-7}$ | $1.258 \cdot 10^{-5}$ | $1.258 \cdot 10^{-5}$ | $-2.384 \cdot 10^{-7}$ |
| DeltaucHq3 | $5.95 \cdot 10^{-5}$ | $5.95 \cdot 10^{-5}$ | $-9.917 \cdot 10^{-7}$ | $6.35 \cdot 10^{-6}$ | $6.35 \cdot 10^{-6}$ | $2.677 \cdot 10^{-7}$ |
| Deltaucqq1 | 0.07576 | 0.07576 | $-7.919 \cdot 10^{-8}$ | 0.3378 | 0.3378 | 0 |
| Deltaucqq11 | 0.5157 | 0.5157 | 0 | 0.3378 | 0.3378 | 0 |
| Deltaucqq3 | 0.01844 | 0.01844 | $-1.085 \cdot 10^{-7}$ | 0.07942 | 0.07942 | 0 |
| Deltaucqq31 | 0.1511 | 0.1511 | 0 | 0.07942 | 0.07942 | 0 |
| DeltaucuB | -0.003213 | -0.003213 | $4.046 \cdot 10^{-7}$ | 0.004059 | 0.004059 | $3.695 \cdot 10^{-7}$ |
| DeltaucuG | -0.1941 | -0.1941 | 0 | 0.03699 | 0.03699 | 0 |
| DeltaucuH | $-1.522 \cdot 10^{-6}$ | $-1.522 \cdot 10^{-6}$ | 0 | $4.534 \cdot 10^{-8}$ | $4.534 \cdot 10^{-8}$ | 0 |
| DeltaucuW | -0.002192 | -0.002192 | $4.563 \cdot 10^{-8}$ | 0.003975 | 0.003975 | $-1.258 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.8369 | 0.8369 | 0 |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $-1.445 \cdot 10^{-6}$ | $-1.445 \cdot 10^{-6}$ | $3.46 \cdot 10^{-7}$ | $1.909 \cdot 10^{-8}$ | $1.909 \cdot 10^{-8}$ | 0 |
| Delta1dcqd8 | 0.0002887 | 0.0002887 | 0 | $5.396 \cdot 10^{-8}$ | $5.396 \cdot 10^{-8}$ | 0 |
| Delta1dcqu1 | $2.658 \cdot 10^{-12}$ | $2.658 \cdot 10^{-12}$ | $1.128 \cdot 10^{-6}$ | $1.744 \cdot 10^{-19}$ | $1.744 \cdot 10^{-19}$ | 0 |
| Delta1dcqu8 | $4.136 \cdot 10^{-11}$ | $4.136 \cdot 10^{-11}$ | 0 | $6.61 \cdot 10^{-21}$ | $6.61 \cdot 10^{-21}$ | 0 |
| Delta1ucqd1 | -0.01175 | -0.01175 | $3.406 \cdot 10^{-7}$ | 0.7086 | 0.7086 | 0 |
| Delta1ucqd8 | 0.05661 | 0.05661 | 0 | 0.01238 | 0.01238 | 0 |
| Delta1ucqu1 | $-6.821 \cdot 10^{-13}$ | $-6.821 \cdot 10^{-13}$ | $-3.079 \cdot 10^{-7}$ | $1.361 \cdot 10^{-21}$ | $1.361 \cdot 10^{-21}$ | 0 |
| Delta1ucqu8 | $3.717 \cdot 10^{-11}$ | $3.717 \cdot 10^{-11}$ | 0 | $1.774 \cdot 10^{-21}$ | $1.774 \cdot 10^{-21}$ | 0 |
| Delta2cqd1 | $-8.583 \cdot 10^{-12}$ | $-8.583 \cdot 10^{-12}$ | $3.495 \cdot 10^{-7}$ | $3.783 \cdot 10^{-19}$ | $3.783 \cdot 10^{-19}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Delta2cqd8 | $4.136 \cdot 10^{-11}$ | $4.136 \cdot 10^{-11}$ | 0 | $6.61 \cdot 10^{-21}$ | $6.61 \cdot 10^{-21}$ | 0 |
| Delta2cqu1 | -0.004363 | -0.004363 | $-2.979 \cdot 10^{-7}$ | 0.05571 | 0.05571 | 0 |
| Delta2cqu8 | 0.05661 | 0.05661 | 0 | 0.01238 | 0.01238 | 0 |
| DeltacHd | $4.549 \cdot 10^{-14}$ | $4.549 \cdot 10^{-14}$ | $1.539 \cdot 10^{-7}$ | $1.225 \cdot 10^{-23}$ | $1.225 \cdot 10^{-23}$ | $-3.264 \cdot 10^{-7}$ |
| DeltacHu | 0.0001084 | 0.0001084 | $4.613 \cdot 10^{-7}$ | $3.556 \cdot 10^{-5}$ | $3.556 \cdot 10^{-5}$ | $-1.406 \cdot 10^{-7}$ |
| DeltadcHq1 | $-1.301 \cdot 10^{-8}$ | $-1.301 \cdot 10^{-8}$ | $-9.221 \cdot 10^{-7}$ | $9.235 \cdot 10^{-13}$ | $9.235 \cdot 10^{-13}$ | $2.49 \cdot 10^{-7}$ |
| DeltadcHq3 | $1.301 \cdot 10^{-8}$ | $1.301 \cdot 10^{-8}$ | $-9.989 \cdot 10^{-7}$ | $9.235 \cdot 10^{-13}$ | $9.235 \cdot 10^{-13}$ | $2.49 \cdot 10^{-7}$ |
| DeltadcdB | $6.439 \cdot 10^{-21}$ | $6.439 \cdot 10^{-21}$ | $1.708 \cdot 10^{-7}$ | $7.748 \cdot 10^{-31}$ | $7.748 \cdot 10^{-31}$ | $3.614 \cdot 10^{-7}$ |
| DeltadcdG | $-1.127 \cdot 10^{-19}$ | $-1.127 \cdot 10^{-19}$ | 0 | $1.126 \cdot 10^{-29}$ | $1.126 \cdot 10^{-29}$ | 0 |
| DeltadcdH | $-1.494 \cdot 10^{-20}$ | $-1.494 \cdot 10^{-20}$ | 0 | $3.273 \cdot 10^{-31}$ | $3.273 \cdot 10^{-31}$ | 0 |
| DeltadcdW | $-3.404 \cdot 10^{-21}$ | $-3.404 \cdot 10^{-21}$ | $-8.814 \cdot 10^{-8}$ | $2.361 \cdot 10^{-30}$ | $2.361 \cdot 10^{-30}$ | $-8.47 \cdot 10^{-8}$ |
| Deltadcqq1 | $-3.106 \cdot 10^{-6}$ | $-3.106 \cdot 10^{-6}$ | $-2.253 \cdot 10^{-7}$ | $1.017 \cdot 10^{-8}$ | $1.017 \cdot 10^{-8}$ | 0 |
| Deltadcqq3 | $3.106 \cdot 10^{-6}$ | $3.106 \cdot 10^{-6}$ | $-2.253 \cdot 10^{-7}$ | $1.017 \cdot 10^{-8}$ | $1.017 \cdot 10^{-8}$ | 0 |
| Deltadcqq31 | 0.0009444 | 0.0009444 | 0 | $8.297 \cdot 10^{-7}$ | $8.297 \cdot 10^{-7}$ | 0 |
| DeltadcuB | $3.67 \cdot 10^{-8}$ | $3.67 \cdot 10^{-8}$ | $-4.551 \cdot 10^{-6}$ | $4.153 \cdot 10^{-10}$ | $4.153 \cdot 10^{-10}$ | $3.612 \cdot 10^{-7}$ |
| DeltadcuG | -0.0001136 | -0.0001136 | 0 | $9.372 \cdot 10^{-9}$ | $9.372 \cdot 10^{-9}$ | 0 |
| DeltadcuH | $-1.197 \cdot 10^{-14}$ | $-1.197 \cdot 10^{-14}$ | 0 | $2.101 \cdot 10^{-19}$ | $2.101 \cdot 10^{-19}$ | 0 |
| DeltadcuW | $-3.472 \cdot 10^{-6}$ | $-3.472 \cdot 10^{-6}$ | $-2.016 \cdot 10^{-7}$ | $1.854 \cdot 10^{-9}$ | $1.854 \cdot 10^{-9}$ | $-1.078 \cdot 10^{-7}$ |
| Deltadcud1 | $-1.557 \cdot 10^{-12}$ | $-1.557 \cdot 10^{-12}$ | $3.212 \cdot 10^{-7}$ | $1.584 \cdot 10^{-20}$ | $1.584 \cdot 10^{-20}$ | 0 |
| Deltadcud8 | $2.864 \cdot 10^{-11}$ | $2.864 \cdot 10^{-11}$ | 0 | $3.52 \cdot 10^{-21}$ | $3.52 \cdot 10^{-21}$ | 0 |
| DeltaucHq1 | -0.0008805 | -0.0008805 | $-2.044 \cdot 10^{-7}$ | $3.043 \cdot 10^{-5}$ | $3.043 \cdot 10^{-5}$ | $-1.315 \cdot 10^{-7}$ |
| DeltaucHq3 | $2.223 \cdot 10^{-5}$ | $2.223 \cdot 10^{-5}$ | $-9.447 \cdot 10^{-7}$ | $2.695 \cdot 10^{-6}$ | $2.695 \cdot 10^{-6}$ | $2.598 \cdot 10^{-7}$ |
| DeltaucdB | $-8.123 \cdot 10^{-22}$ | $-8.123 \cdot 10^{-22}$ | $3.939 \cdot 10^{-7}$ | $4.544 \cdot 10^{-32}$ | $4.544 \cdot 10^{-32}$ | $6.381 \cdot 10^{-7}$ |
| DeltaucdG | $-2.411 \cdot 10^{-20}$ | $-2.411 \cdot 10^{-20}$ | 0 | $4.071 \cdot 10^{-31}$ | $4.071 \cdot 10^{-31}$ | 0 |
| DeltaucdH | $-3.228 \cdot 10^{-21}$ | $-3.228 \cdot 10^{-21}$ | 0 | $1.498 \cdot 10^{-32}$ | $1.498 \cdot 10^{-32}$ | 0 |
| DeltaucdW | $4.68 \cdot 10^{-22}$ | $4.68 \cdot 10^{-22}$ | $-1.026 \cdot 10^{-6}$ | $7.666 \cdot 10^{-32}$ | $7.666 \cdot 10^{-32}$ | $-6 \cdot 10^{-7}$ |
| Deltaucqq1 | -0.1248 | -0.1248 | $-8.011 \cdot 10^{-8}$ | 0.6053 | 0.6053 | 0 |
| Deltaucqq3 | 0.005306 | 0.005306 | $-1.885 \cdot 10^{-7}$ | 0.02967 | 0.02967 | 0 |
| Deltaucqq31 | 0.1532 | 0.1532 | 0 | 0.1187 | 0.1187 | 0 |

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|------------|-------------------------|-------------------------|------------------------|-----------------------|-----------------------|------------------------|
| DeltaucuB | 0.0004264 | 0.0004264 | $-7.74 \cdot 10^{-7}$ | 0.0009139 | 0.0009139 | $3.502 \cdot 10^{-7}$ |
| DeltaucuG | -0.1941 | -0.1941 | 0 | 0.02735 | 0.02735 | 0 |
| DeltaucuH | $-2.045 \cdot 10^{-11}$ | $-2.045 \cdot 10^{-11}$ | 0 | $6.13 \cdot 10^{-13}$ | $6.13 \cdot 10^{-13}$ | 0 |
| DeltaucuW | -0.002877 | -0.002877 | $-3.128 \cdot 10^{-7}$ | 0.007175 | 0.007175 | $-1.115 \cdot 10^{-7}$ |
| Deltaucud1 | -0.01176 | -0.01176 | $3.402 \cdot 10^{-7}$ | 0.1958 | 0.1958 | 0 |
| Deltaucud8 | 0.03919 | 0.03919 | 0 | 0.006593 | 0.006593 | 0 |
| sm | 0 | 0 | 0 | 0.5862 | 0.5862 | 0 |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $-3.21 \cdot 10^{-6}$ | $-3.21 \cdot 10^{-6}$ | $3.738 \cdot 10^{-7}$ | $9.182 \cdot 10^{-8}$ | $9.182 \cdot 10^{-8}$ | 0 |
| Delta1dcqd8 | 0.0002278 | 0.0002278 | 0 | $4.211 \cdot 10^{-8}$ | $4.211 \cdot 10^{-8}$ | 0 |
| Delta1dcqu1 | $1.133 \cdot 10^{-9}$ | $1.133 \cdot 10^{-9}$ | $1.059 \cdot 10^{-6}$ | $2.82 \cdot 10^{-14}$ | $2.82 \cdot 10^{-14}$ | 0 |
| Delta1dcqu8 | $5.753 \cdot 10^{-8}$ | $5.753 \cdot 10^{-8}$ | 0 | $5 \cdot 10^{-15}$ | $5 \cdot 10^{-15}$ | 0 |
| Delta1ucqd1 | -0.009533 | -0.009533 | $3.671 \cdot 10^{-7}$ | 0.5529 | 0.5529 | 0 |
| Delta1ucqd8 | 0.1985 | 0.1985 | 0 | 0.05954 | 0.05954 | 0 |
| Delta1ucqu1 | $1.029 \cdot 10^{-7}$ | $1.029 \cdot 10^{-7}$ | $1.846 \cdot 10^{-6}$ | $7.824 \cdot 10^{-10}$ | $7.824 \cdot 10^{-10}$ | 0 |
| Delta1ucqu8 | $1.318 \cdot 10^{-5}$ | $1.318 \cdot 10^{-5}$ | 0 | $2.18 \cdot 10^{-10}$ | $2.18 \cdot 10^{-10}$ | 0 |
| Delta2cqd1 | $-2.763 \cdot 10^{-9}$ | $-2.763 \cdot 10^{-9}$ | $3.62 \cdot 10^{-7}$ | $4.643 \cdot 10^{-14}$ | $4.643 \cdot 10^{-14}$ | 0 |
| Delta2cqd8 | $5.753 \cdot 10^{-8}$ | $5.753 \cdot 10^{-8}$ | 0 | $5 \cdot 10^{-15}$ | $5 \cdot 10^{-15}$ | 0 |
| Delta2cqu1 | 0.001904 | 0.001904 | $1.838 \cdot 10^{-6}$ | 0.2679 | 0.2679 | 0 |
| Delta2cqu8 | 0.1985 | 0.1985 | 0 | 0.05954 | 0.05954 | 0 |
| DeltacHd | $1.243 \cdot 10^{-11}$ | $1.243 \cdot 10^{-11}$ | $8.046 \cdot 10^{-8}$ | $1.516 \cdot 10^{-18}$ | $1.516 \cdot 10^{-18}$ | $-3.297 \cdot 10^{-7}$ |
| DeltacHu | $7.914 \cdot 10^{-5}$ | $7.914 \cdot 10^{-5}$ | $5.812 \cdot 10^{-7}$ | $2.783 \cdot 10^{-5}$ | $2.783 \cdot 10^{-5}$ | $-1.437 \cdot 10^{-7}$ |
| DeltadcHq1 | $-5.21 \cdot 10^{-8}$ | $-5.21 \cdot 10^{-8}$ | $-3.455 \cdot 10^{-7}$ | $1.579 \cdot 10^{-12}$ | $1.579 \cdot 10^{-12}$ | $6.335 \cdot 10^{-8}$ |
| DeltadcHq3 | $5.216 \cdot 10^{-8}$ | $5.216 \cdot 10^{-8}$ | $-3.451 \cdot 10^{-7}$ | $1.58 \cdot 10^{-12}$ | $1.58 \cdot 10^{-12}$ | 0 |
| DeltadcdB | $7.517 \cdot 10^{-16}$ | $7.517 \cdot 10^{-16}$ | $1.729 \cdot 10^{-7}$ | $6.809 \cdot 10^{-23}$ | $6.809 \cdot 10^{-23}$ | $3.525 \cdot 10^{-7}$ |

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|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcdG | $-1.773 \cdot 10^{-14}$ | $-1.773 \cdot 10^{-14}$ | 0 | $9.831 \cdot 10^{-22}$ | $9.831 \cdot 10^{-22}$ | 0 |
| DeltadcdH | $-2.361 \cdot 10^{-15}$ | $-2.361 \cdot 10^{-15}$ | 0 | $2.041 \cdot 10^{-23}$ | $2.041 \cdot 10^{-23}$ | 0 |
| DeltadcdW | $-5.564 \cdot 10^{-16}$ | $-5.564 \cdot 10^{-16}$ | $-1.078 \cdot 10^{-7}$ | $1.466 \cdot 10^{-22}$ | $1.466 \cdot 10^{-22}$ | $-1.364 \cdot 10^{-7}$ |
| Deltadcqq1 | $-8.396 \cdot 10^{-6}$ | $-8.396 \cdot 10^{-6}$ | $-1.548 \cdot 10^{-7}$ | $2.509 \cdot 10^{-8}$ | $2.509 \cdot 10^{-8}$ | 0 |
| Deltadcqq3 | $8.396 \cdot 10^{-6}$ | $8.396 \cdot 10^{-6}$ | $-1.548 \cdot 10^{-7}$ | $2.509 \cdot 10^{-8}$ | $2.509 \cdot 10^{-8}$ | 0 |
| Deltadcqq31 | 0.0004118 | 0.0004118 | 0 | $3.381 \cdot 10^{-7}$ | $3.381 \cdot 10^{-7}$ | 0 |
| DeltadcuB | $3.16 \cdot 10^{-8}$ | $3.16 \cdot 10^{-8}$ | $-5.253 \cdot 10^{-6}$ | $4.136 \cdot 10^{-10}$ | $4.136 \cdot 10^{-10}$ | $3.626 \cdot 10^{-7}$ |
| DeltadcuG | -0.0001136 | -0.0001136 | 0 | $1.24 \cdot 10^{-8}$ | $1.24 \cdot 10^{-8}$ | 0 |
| DeltadcuH | $-4.769 \cdot 10^{-12}$ | $-4.769 \cdot 10^{-12}$ | 0 | $8.331 \cdot 10^{-17}$ | $8.331 \cdot 10^{-17}$ | 0 |
| DeltadcuW | $-1.972 \cdot 10^{-6}$ | $-1.972 \cdot 10^{-6}$ | $-2.536 \cdot 10^{-7}$ | $2.494 \cdot 10^{-9}$ | $2.494 \cdot 10^{-9}$ | $-1.203 \cdot 10^{-7}$ |
| Deltadcud1 | $-1.348 \cdot 10^{-9}$ | $-1.348 \cdot 10^{-9}$ | $3.71 \cdot 10^{-7}$ | $6.143 \cdot 10^{-15}$ | $6.143 \cdot 10^{-15}$ | 0 |
| Deltadcud8 | $1.978 \cdot 10^{-8}$ | $1.978 \cdot 10^{-8}$ | 0 | $1.365 \cdot 10^{-15}$ | $1.365 \cdot 10^{-15}$ | 0 |
| Deltauchq1 | -0.000349 | -0.000349 | $-2.006 \cdot 10^{-7}$ | $1.281 \cdot 10^{-5}$ | $1.281 \cdot 10^{-5}$ | $-7.809 \cdot 10^{-8}$ |
| Deltauchq3 | $8.905 \cdot 10^{-5}$ | $8.905 \cdot 10^{-5}$ | $-3.481 \cdot 10^{-7}$ | $4.609 \cdot 10^{-6}$ | $4.609 \cdot 10^{-6}$ | $4.339 \cdot 10^{-8}$ |
| DeltaucdB | $2.819 \cdot 10^{-14}$ | $2.819 \cdot 10^{-14}$ | $2.128 \cdot 10^{-7}$ | $3.052 \cdot 10^{-18}$ | $3.052 \cdot 10^{-18}$ | $3.604 \cdot 10^{-7}$ |
| DeltaucdG | $-3.306 \cdot 10^{-12}$ | $-3.306 \cdot 10^{-12}$ | 0 | $2.676 \cdot 10^{-17}$ | $2.676 \cdot 10^{-17}$ | 0 |
| DeltaucdH | $-4.418 \cdot 10^{-13}$ | $-4.418 \cdot 10^{-13}$ | 0 | $7.099 \cdot 10^{-19}$ | $7.099 \cdot 10^{-19}$ | 0 |
| DeltaucdW | $-7.348 \cdot 10^{-14}$ | $-7.348 \cdot 10^{-14}$ | $-1.361 \cdot 10^{-7}$ | $5.209 \cdot 10^{-18}$ | $5.209 \cdot 10^{-18}$ | $-1.152 \cdot 10^{-7}$ |
| Deltaucqq1 | -0.05032 | -0.05032 | $-1.391 \cdot 10^{-7}$ | 0.2464 | 0.2464 | 0 |
| Deltaucqq3 | 0.01434 | 0.01434 | $-1.395 \cdot 10^{-7}$ | 0.07316 | 0.07316 | 0 |
| Deltaucqq31 | 0.2635 | 0.2635 | 0 | 0.2926 | 0.2926 | 0 |
| DeltaucuB | 0.0001211 | 0.0001211 | $-2.477 \cdot 10^{-6}$ | 0.001229 | 0.001229 | $3.254 \cdot 10^{-7}$ |
| DeltaucuG | -0.1941 | -0.1941 | 0 | 0.03617 | 0.03617 | 0 |
| DeltaucuH | $-8.146 \cdot 10^{-9}$ | $-8.146 \cdot 10^{-9}$ | 0 | $2.431 \cdot 10^{-10}$ | $2.431 \cdot 10^{-10}$ | 0 |
| DeltaucuW | -0.002804 | -0.002804 | $-2.853 \cdot 10^{-7}$ | 0.007147 | 0.007147 | $-1.119 \cdot 10^{-7}$ |
| Deltaucud1 | -0.01135 | -0.01135 | $3.524 \cdot 10^{-7}$ | 0.1888 | 0.1888 | 0 |
| Deltaucud8 | 0.06827 | 0.06827 | 0 | 0.01626 | 0.01626 | 0 |
| sm | 0 | 0 | 0 | 0.5884 | 0.5884 | 0 |

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

| | interference | | | square | | |
|-------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| Delta1dcqu1 | -0.0001369 | -0.0001369 | $2.922 \cdot 10^{-7}$ | $2.838 \cdot 10^{-6}$ | $2.838 \cdot 10^{-6}$ | 0 |
| Delta1dcqu8 | -0.004755 | -0.004755 | 0 | $5.521 \cdot 10^{-7}$ | $5.521 \cdot 10^{-7}$ | 0 |
| Delta1ucqu1 | -0.835 | -0.835 | $1.677 \cdot 10^{-7}$ | 7.467 | 7.467 | 0 |
| Delta1ucqu8 | -4.22 | -4.22 | 0 | 1.803 | 1.803 | 0 |
| Delta2cqu1 | -0.835 | -0.835 | $1.677 \cdot 10^{-7}$ | 7.467 | 7.467 | 0 |
| Delta2cqu8 | -8.123 | -8.123 | 0 | 1.611 | 1.611 | 0 |
| DeltacHu | -0.04805 | -0.04805 | $4.163 \cdot 10^{-8}$ | 0.008736 | 0.008736 | $-2.289 \cdot 10^{-8}$ |
| Deltacuu | -0.3222 | -0.3222 | $3.104 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| Deltacuu1 | -0.3222 | -0.3222 | $3.104 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| DeltadcHq1 | $3.174 \cdot 10^{-5}$ | $3.174 \cdot 10^{-5}$ | $-3.151 \cdot 10^{-8}$ | $2.868 \cdot 10^{-9}$ | $2.868 \cdot 10^{-9}$ | 0 |
| DeltadcHq3 | $-3.174 \cdot 10^{-5}$ | $-3.174 \cdot 10^{-5}$ | $-3.151 \cdot 10^{-8}$ | $2.868 \cdot 10^{-9}$ | $2.868 \cdot 10^{-9}$ | 0 |
| Deltadcqq1 | -0.0002063 | -0.0002063 | $-4.848 \cdot 10^{-8}$ | $1.412 \cdot 10^{-6}$ | $1.412 \cdot 10^{-6}$ | 0 |
| Deltadcqq11 | -0.006105 | -0.006105 | $-1.638 \cdot 10^{-8}$ | $7.066 \cdot 10^{-6}$ | $7.066 \cdot 10^{-6}$ | 0 |
| Deltadcqq3 | -0.0002063 | -0.0002063 | $-4.848 \cdot 10^{-8}$ | $1.412 \cdot 10^{-6}$ | $1.412 \cdot 10^{-6}$ | 0 |
| Deltadcqq31 | -0.006105 | -0.006105 | $-1.638 \cdot 10^{-8}$ | $7.066 \cdot 10^{-6}$ | $7.066 \cdot 10^{-6}$ | 0 |
| DeltadcuB | 0.0001137 | 0.0001137 | $1.759 \cdot 10^{-7}$ | $3.789 \cdot 10^{-8}$ | $3.789 \cdot 10^{-8}$ | $3.431 \cdot 10^{-7}$ |
| DeltadcuG | $-8.682 \cdot 10^{-5}$ | $-8.682 \cdot 10^{-5}$ | $2.304 \cdot 10^{-8}$ | $1.176 \cdot 10^{-7}$ | $1.176 \cdot 10^{-7}$ | 0 |
| DeltadcuH | 0.0001161 | 0.0001161 | 0 | $3.105 \cdot 10^{-9}$ | $3.105 \cdot 10^{-9}$ | 0 |
| DeltadcuW | 0.000334 | 0.000334 | $-5.988 \cdot 10^{-8}$ | $1.126 \cdot 10^{-7}$ | $1.126 \cdot 10^{-7}$ | $-8.882 \cdot 10^{-8}$ |
| DeltaucHq1 | 0.2557 | 0.2557 | 0 | 0.009883 | 0.009883 | $-1.012 \cdot 10^{-8}$ |
| DeltaucHq3 | -0.05422 | -0.05422 | $-1.844 \cdot 10^{-8}$ | 0.008368 | 0.008368 | $1.195 \cdot 10^{-8}$ |
| Deltaucqq1 | -10.43 | -10.43 | 0 | 20.62 | 20.62 | 0 |
| Deltaucqq11 | -10.43 | -10.43 | 0 | 20.62 | 20.62 | 0 |
| Deltaucqq3 | -0.3524 | -0.3524 | $-2.838 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| Deltaucqq31 | -0.3524 | -0.3524 | $-2.838 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| DeltaucB | 0.5091 | 0.5091 | $1.768 \cdot 10^{-7}$ | 0.1971 | 0.1971 | $3.551 \cdot 10^{-7}$ |

| | | | | | | |
|-----------|---------|---------|------------------------|---------|---------|------------------------|
| DeltaucuG | -0.1483 | -0.1483 | 0 | 0.3432 | 0.3432 | 0 |
| DeltaucuH | 0.1983 | 0.1983 | 0 | 0.00906 | 0.00906 | 0 |
| DeltaucuW | 0.2175 | 0.2175 | $-9.194 \cdot 10^{-8}$ | 0.1843 | 0.1843 | $-1.085 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 5.307 | 5.307 | $-1.884 \cdot 10^{-8}$ |

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

| | interference | | | square | | |
|--------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| DeltadcHq3 | $1.434 \cdot 10^{-13}$ | $1.434 \cdot 10^{-13}$ | $-2.092 \cdot 10^{-7}$ | $3.127 \cdot 10^{-24}$ | $3.127 \cdot 10^{-24}$ | $-2.238 \cdot 10^{-7}$ |
| DeltadcdW | $-2.671 \cdot 10^{-21}$ | $-2.671 \cdot 10^{-21}$ | $-1.872 \cdot 10^{-7}$ | $4.477 \cdot 10^{-31}$ | $4.477 \cdot 10^{-31}$ | $-1.117 \cdot 10^{-7}$ |
| Deltadcledq | $-3.171 \cdot 10^{-26}$ | $-3.171 \cdot 10^{-26}$ | 0 | $1.143 \cdot 10^{-35}$ | $1.143 \cdot 10^{-35}$ | 0 |
| Deltadclequ1 | $6.812 \cdot 10^{-27}$ | $6.812 \cdot 10^{-27}$ | 0 | $2.445 \cdot 10^{-36}$ | $2.445 \cdot 10^{-36}$ | 0 |
| Deltadclequ3 | $9.549 \cdot 10^{-27}$ | $9.549 \cdot 10^{-27}$ | 0 | $4.424 \cdot 10^{-36}$ | $4.424 \cdot 10^{-36}$ | 0 |
| Deltadclq3 | $1.47 \cdot 10^{-10}$ | $1.47 \cdot 10^{-10}$ | $-1.361 \cdot 10^{-7}$ | $4.998 \cdot 10^{-19}$ | $4.998 \cdot 10^{-19}$ | 0 |
| DeltadcuW | $-5.26 \cdot 10^{-22}$ | $-5.26 \cdot 10^{-22}$ | $-1.711 \cdot 10^{-7}$ | $1.739 \cdot 10^{-31}$ | $1.739 \cdot 10^{-31}$ | $-1.15 \cdot 10^{-7}$ |
| DeltaucHq3 | $3.068 \cdot 10^{-14}$ | $3.068 \cdot 10^{-14}$ | $-2.282 \cdot 10^{-7}$ | $1.431 \cdot 10^{-25}$ | $1.431 \cdot 10^{-25}$ | $-2.795 \cdot 10^{-7}$ |
| DeltaucdW | $-5.26 \cdot 10^{-22}$ | $-5.26 \cdot 10^{-22}$ | $-1.521 \cdot 10^{-7}$ | $3.721 \cdot 10^{-32}$ | $3.721 \cdot 10^{-32}$ | $-1.075 \cdot 10^{-7}$ |
| Deltaucledq | $-6.828 \cdot 10^{-27}$ | $-6.828 \cdot 10^{-27}$ | 0 | $5.232 \cdot 10^{-37}$ | $5.232 \cdot 10^{-37}$ | 0 |
| Deltauclequ1 | $1.457 \cdot 10^{-27}$ | $1.457 \cdot 10^{-27}$ | 0 | $1.119 \cdot 10^{-37}$ | $1.119 \cdot 10^{-37}$ | 0 |
| Deltauclequ3 | $-3.919 \cdot 10^{-27}$ | $-3.919 \cdot 10^{-27}$ | 0 | $8.824 \cdot 10^{-37}$ | $8.824 \cdot 10^{-37}$ | 0 |
| Deltauclq3 | $3.145 \cdot 10^{-11}$ | $3.145 \cdot 10^{-11}$ | $-9.54 \cdot 10^{-8}$ | $2.288 \cdot 10^{-20}$ | $2.288 \cdot 10^{-20}$ | 0 |
| DeltaucuW | $-1.222 \cdot 10^{-22}$ | $-1.222 \cdot 10^{-22}$ | $-1.636 \cdot 10^{-7}$ | $4.383 \cdot 10^{-33}$ | $4.383 \cdot 10^{-33}$ | $-1.141 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.01275 | 0.01275 | $-2.352 \cdot 10^{-7}$ |

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

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

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltadcHq3 | $8.119 \cdot 10^{-10}$ | $8.119 \cdot 10^{-10}$ | $-2.217 \cdot 10^{-7}$ | $7.04 \cdot 10^{-18}$ | $7.04 \cdot 10^{-18}$ | $-2.273 \cdot 10^{-7}$ |
| DeltadcW | $-1.297 \cdot 10^{-15}$ | $-1.297 \cdot 10^{-15}$ | $-1.542 \cdot 10^{-7}$ | $5.511 \cdot 10^{-23}$ | $5.511 \cdot 10^{-23}$ | $-1.27 \cdot 10^{-7}$ |
| Deltadcqq11 | $1.526 \cdot 10^{-9}$ | $1.526 \cdot 10^{-9}$ | $-1.31 \cdot 10^{-7}$ | $3.095 \cdot 10^{-15}$ | $3.095 \cdot 10^{-15}$ | 0 |
| Deltadcqq3 | $1.266 \cdot 10^{-7}$ | $1.266 \cdot 10^{-7}$ | $-1.58 \cdot 10^{-7}$ | $1.711 \cdot 10^{-13}$ | $1.711 \cdot 10^{-13}$ | 0 |
| Deltadcqq31 | $-1.526 \cdot 10^{-9}$ | $-1.526 \cdot 10^{-9}$ | $-1.31 \cdot 10^{-7}$ | $3.095 \cdot 10^{-15}$ | $3.095 \cdot 10^{-15}$ | 0 |
| DeltadcuW | $-4.944 \cdot 10^{-14}$ | $-4.944 \cdot 10^{-14}$ | $-1.618 \cdot 10^{-7}$ | $3.505 \cdot 10^{-20}$ | $3.505 \cdot 10^{-20}$ | $-8.56 \cdot 10^{-8}$ |
| DeltaucHq3 | $1.51 \cdot 10^{-7}$ | $1.51 \cdot 10^{-7}$ | $-1.986 \cdot 10^{-7}$ | $2.436 \cdot 10^{-13}$ | $2.436 \cdot 10^{-13}$ | $-2.053 \cdot 10^{-7}$ |
| DeltaucdW | $-4.944 \cdot 10^{-14}$ | $-4.944 \cdot 10^{-14}$ | $-1.618 \cdot 10^{-7}$ | $6.536 \cdot 10^{-18}$ | $6.536 \cdot 10^{-18}$ | $-1.071 \cdot 10^{-7}$ |
| Deltaucqq11 | $2.839 \cdot 10^{-7}$ | $2.839 \cdot 10^{-7}$ | $-1.057 \cdot 10^{-7}$ | $1.071 \cdot 10^{-10}$ | $1.071 \cdot 10^{-10}$ | 0 |
| Deltaucqq3 | $2.355 \cdot 10^{-5}$ | $2.355 \cdot 10^{-5}$ | $-1.274 \cdot 10^{-7}$ | $5.922 \cdot 10^{-9}$ | $5.922 \cdot 10^{-9}$ | 0 |
| Deltaucqq31 | $-3.925 \cdot 10^{-6}$ | $-3.925 \cdot 10^{-6}$ | $-1.274 \cdot 10^{-7}$ | $1.48 \cdot 10^{-9}$ | $1.48 \cdot 10^{-9}$ | 0 |
| DeltaucuW | $-4.512 \cdot 10^{-11}$ | $-4.512 \cdot 10^{-11}$ | $-1.773 \cdot 10^{-7}$ | $3.574 \cdot 10^{-16}$ | $3.574 \cdot 10^{-16}$ | $-8.394 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 0.04056 | 0.04056 | $-1.973 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqd1 | $2.841 \cdot 10^{-11}$ | $2.841 \cdot 10^{-11}$ | $3.52 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |
| Delta1dcqd8 | $-1.511 \cdot 10^{-9}$ | $-1.511 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |
| Delta1dcqu1 | $-1.366 \cdot 10^{-10}$ | $-1.366 \cdot 10^{-10}$ | $4.394 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |
| Delta1dcqu8 | $-1.258 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |
| Delta1ucqd1 | $7.361 \cdot 10^{-12}$ | $7.361 \cdot 10^{-12}$ | $3.532 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |
| Delta1ucqd8 | $-2.691 \cdot 10^{-10}$ | $-2.691 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |
| Delta1ucqu1 | $-1.1 \cdot 10^{-11}$ | $-1.1 \cdot 10^{-11}$ | $3.637 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |
| Delta1ucqu8 | $-8.005 \cdot 10^{-10}$ | $-8.005 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |
| Delta2cqd1 | $3.441 \cdot 10^{-11}$ | $3.441 \cdot 10^{-11}$ | $3.488 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |
| Delta2cqd8 | $-1.258 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |
| Delta2cqu1 | $-1.1 \cdot 10^{-11}$ | $-1.1 \cdot 10^{-11}$ | $3.637 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Delta2cqu8 | $-2.691 \cdot 10^{-10}$ | $-2.691 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |
| DeltacHd | $1.198 \cdot 10^{-13}$ | $1.198 \cdot 10^{-13}$ | $-1.92 \cdot 10^{-6}$ | $1.795 \cdot 10^{-22}$ | $1.795 \cdot 10^{-22}$ | $-2.228 \cdot 10^{-7}$ |
| DeltacHu | $3.375 \cdot 10^{-13}$ | $3.375 \cdot 10^{-13}$ | $3.556 \cdot 10^{-7}$ | $1.145 \cdot 10^{-23}$ | $1.145 \cdot 10^{-23}$ | $-8.736 \cdot 10^{-8}$ |
| DeltadcHq1 | $-4.279 \cdot 10^{-13}$ | $-4.279 \cdot 10^{-13}$ | $-4.674 \cdot 10^{-7}$ | $4.581 \cdot 10^{-23}$ | $4.581 \cdot 10^{-23}$ | $6.985 \cdot 10^{-7}$ |
| DeltadcHq3 | $-2.024 \cdot 10^{-11}$ | $-2.024 \cdot 10^{-11}$ | $-4.942 \cdot 10^{-8}$ | $7.498 \cdot 10^{-22}$ | $7.498 \cdot 10^{-22}$ | $-1.6 \cdot 10^{-7}$ |
| DeltadcdB | $-5.019 \cdot 10^{-21}$ | $-5.019 \cdot 10^{-21}$ | $3.188 \cdot 10^{-7}$ | $1.19 \cdot 10^{-29}$ | $1.19 \cdot 10^{-29}$ | $3.361 \cdot 10^{-7}$ |
| DeltadcdG | $-1.096 \cdot 10^{-19}$ | $-1.096 \cdot 10^{-19}$ | 0 | $9.84 \cdot 10^{-29}$ | $9.84 \cdot 10^{-29}$ | 0 |
| DeltadcdH | $-1.209 \cdot 10^{-30}$ | $-1.209 \cdot 10^{-30}$ | 0 | $4.855 \cdot 10^{-41}$ | $4.855 \cdot 10^{-41}$ | 0 |
| DeltadcdW | $5.234 \cdot 10^{-19}$ | $5.234 \cdot 10^{-19}$ | $-5.732 \cdot 10^{-8}$ | $5.368 \cdot 10^{-29}$ | $5.368 \cdot 10^{-29}$ | $-9.315 \cdot 10^{-8}$ |
| Deltadcqq1 | $5.258 \cdot 10^{-10}$ | $5.258 \cdot 10^{-10}$ | $-1.141 \cdot 10^{-7}$ | $9.755 \cdot 10^{-19}$ | $9.755 \cdot 10^{-19}$ | 0 |
| Deltadcqq11 | $3.752 \cdot 10^{-10}$ | $3.752 \cdot 10^{-10}$ | $-1.066 \cdot 10^{-7}$ | $8.044 \cdot 10^{-19}$ | $8.044 \cdot 10^{-19}$ | 0 |
| Deltadcqq3 | $-5.359 \cdot 10^{-9}$ | $-5.359 \cdot 10^{-9}$ | $1.866 \cdot 10^{-8}$ | $3.577 \cdot 10^{-18}$ | $3.577 \cdot 10^{-18}$ | 0 |
| Deltadcqq31 | $-3.613 \cdot 10^{-9}$ | $-3.613 \cdot 10^{-9}$ | 0 | $2.95 \cdot 10^{-18}$ | $2.95 \cdot 10^{-18}$ | 0 |
| DeltadcuB | $-7.018 \cdot 10^{-22}$ | $-7.018 \cdot 10^{-22}$ | $-1.14 \cdot 10^{-7}$ | $2.181 \cdot 10^{-30}$ | $2.181 \cdot 10^{-30}$ | $3.209 \cdot 10^{-7}$ |
| DeltadcuG | $-2.363 \cdot 10^{-20}$ | $-2.363 \cdot 10^{-20}$ | 0 | $2.784 \cdot 10^{-29}$ | $2.784 \cdot 10^{-29}$ | 0 |
| DeltadcuH | $-1.209 \cdot 10^{-30}$ | $-1.209 \cdot 10^{-30}$ | 0 | $4.855 \cdot 10^{-41}$ | $4.855 \cdot 10^{-41}$ | 0 |
| DeltadcuW | $2.172 \cdot 10^{-20}$ | $2.172 \cdot 10^{-20}$ | 0 | $3.504 \cdot 10^{-30}$ | $3.504 \cdot 10^{-30}$ | $-1.142 \cdot 10^{-7}$ |
| Deltadcud1 | $6.118 \cdot 10^{-11}$ | $6.118 \cdot 10^{-11}$ | $3.432 \cdot 10^{-7}$ | $2.439 \cdot 10^{-19}$ | $2.439 \cdot 10^{-19}$ | 0 |
| Deltadcud8 | $-7.117 \cdot 10^{-10}$ | $-7.117 \cdot 10^{-10}$ | 0 | $5.419 \cdot 10^{-20}$ | $5.419 \cdot 10^{-20}$ | 0 |
| DeltaucHq1 | $-4.055 \cdot 10^{-14}$ | $-4.055 \cdot 10^{-14}$ | $-8.631 \cdot 10^{-7}$ | $1.444 \cdot 10^{-24}$ | $1.444 \cdot 10^{-24}$ | $7.619 \cdot 10^{-7}$ |
| DeltaucHq3 | $-4.329 \cdot 10^{-12}$ | $-4.329 \cdot 10^{-12}$ | $-2.31 \cdot 10^{-8}$ | $3.432 \cdot 10^{-23}$ | $3.432 \cdot 10^{-23}$ | $-1.748 \cdot 10^{-7}$ |
| DeltaucdB | $-8.438 \cdot 10^{-22}$ | $-8.438 \cdot 10^{-22}$ | $1.387 \cdot 10^{-6}$ | $4.122 \cdot 10^{-31}$ | $4.122 \cdot 10^{-31}$ | $5.58 \cdot 10^{-7}$ |
| DeltaucdG | $-2.363 \cdot 10^{-20}$ | $-2.363 \cdot 10^{-20}$ | 0 | $5.957 \cdot 10^{-30}$ | $5.957 \cdot 10^{-30}$ | 0 |
| DeltaucdH | $-2.299 \cdot 10^{-31}$ | $-2.299 \cdot 10^{-31}$ | $4.349 \cdot 10^{-8}$ | $2.187 \cdot 10^{-42}$ | $2.187 \cdot 10^{-42}$ | 0 |
| DeltaucdW | $2.121 \cdot 10^{-20}$ | $2.121 \cdot 10^{-20}$ | $-9.429 \cdot 10^{-8}$ | $7.531 \cdot 10^{-31}$ | $7.531 \cdot 10^{-31}$ | $-4.116 \cdot 10^{-7}$ |
| Deltaucqq1 | $8.027 \cdot 10^{-11}$ | $8.027 \cdot 10^{-11}$ | $-1.246 \cdot 10^{-7}$ | $3.682 \cdot 10^{-20}$ | $3.682 \cdot 10^{-20}$ | 0 |
| Deltaucqq11 | $8.027 \cdot 10^{-11}$ | $8.027 \cdot 10^{-11}$ | $-1.121 \cdot 10^{-7}$ | $3.682 \cdot 10^{-20}$ | $3.682 \cdot 10^{-20}$ | 0 |
| Deltaucqq3 | $-1.146 \cdot 10^{-9}$ | $-1.146 \cdot 10^{-9}$ | 0 | $1.637 \cdot 10^{-19}$ | $1.637 \cdot 10^{-19}$ | 0 |
| Deltaucqq31 | $-1.146 \cdot 10^{-9}$ | $-1.146 \cdot 10^{-9}$ | 0 | $1.637 \cdot 10^{-19}$ | $1.637 \cdot 10^{-19}$ | 0 |

| | | | | | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucuB | $-6.084 \cdot 10^{-23}$ | $-6.084 \cdot 10^{-23}$ | $1.644 \cdot 10^{-8}$ | $2.528 \cdot 10^{-32}$ | $2.528 \cdot 10^{-32}$ | $3.561 \cdot 10^{-7}$ |
| DeltaucuG | $-5.056 \cdot 10^{-21}$ | $-5.056 \cdot 10^{-21}$ | 0 | $1.274 \cdot 10^{-30}$ | $1.274 \cdot 10^{-30}$ | 0 |
| DeltaucuH | $-2.587 \cdot 10^{-31}$ | $-2.587 \cdot 10^{-31}$ | 0 | $2.222 \cdot 10^{-42}$ | $2.222 \cdot 10^{-42}$ | 0 |
| DeltaucuW | $2.429 \cdot 10^{-20}$ | $2.429 \cdot 10^{-20}$ | $-4.118 \cdot 10^{-8}$ | $5.147 \cdot 10^{-31}$ | $5.147 \cdot 10^{-31}$ | $-1.166 \cdot 10^{-7}$ |
| Deltaucud1 | $5.205 \cdot 10^{-11}$ | $5.205 \cdot 10^{-11}$ | $3.65 \cdot 10^{-7}$ | $1.807 \cdot 10^{-20}$ | $1.807 \cdot 10^{-20}$ | 0 |
| Deltaucud8 | $-1.523 \cdot 10^{-10}$ | $-1.523 \cdot 10^{-10}$ | 0 | $2.48 \cdot 10^{-21}$ | $2.48 \cdot 10^{-21}$ | 0 |
| sm | 0 | 0 | 0 | 106.2 | 106.2 | 0 |

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

| | interference | | | square | | |
|------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| DeltacHu | $3.359 \cdot 10^{-16}$ | $3.359 \cdot 10^{-16}$ | $3.572 \cdot 10^{-7}$ | $5.033 \cdot 10^{-27}$ | $5.033 \cdot 10^{-27}$ | 0 |
| Deltaclu | $-2.365 \cdot 10^{-12}$ | $-2.365 \cdot 10^{-12}$ | $3.383 \cdot 10^{-7}$ | $4.226 \cdot 10^{-21}$ | $4.226 \cdot 10^{-21}$ | 0 |
| DeltadcHq1 | $-3.136 \cdot 10^{-13}$ | $-3.136 \cdot 10^{-13}$ | $-1.595 \cdot 10^{-7}$ | $9.931 \cdot 10^{-24}$ | $9.931 \cdot 10^{-24}$ | 0 |
| DeltadcHq3 | $3.136 \cdot 10^{-13}$ | $3.136 \cdot 10^{-13}$ | $-1.595 \cdot 10^{-7}$ | $9.931 \cdot 10^{-24}$ | $9.931 \cdot 10^{-24}$ | 0 |
| Deltadclq1 | $3.74 \cdot 10^{-11}$ | $3.74 \cdot 10^{-11}$ | $-1.604 \cdot 10^{-7}$ | $1.413 \cdot 10^{-19}$ | $1.413 \cdot 10^{-19}$ | 0 |
| Deltadclq3 | $3.293 \cdot 10^{-12}$ | $3.293 \cdot 10^{-12}$ | $-1.822 \cdot 10^{-7}$ | $1.244 \cdot 10^{-20}$ | $1.244 \cdot 10^{-20}$ | 0 |
| DeltadcuB | $5.279 \cdot 10^{-23}$ | $5.279 \cdot 10^{-23}$ | $-3.031 \cdot 10^{-7}$ | $5.197 \cdot 10^{-32}$ | $5.197 \cdot 10^{-32}$ | $3.463 \cdot 10^{-7}$ |
| DeltadcuW | $1.738 \cdot 10^{-23}$ | $1.738 \cdot 10^{-23}$ | $2.532 \cdot 10^{-6}$ | $1.352 \cdot 10^{-31}$ | $1.352 \cdot 10^{-31}$ | $-1.479 \cdot 10^{-7}$ |
| DeltaucHq1 | $-5.907 \cdot 10^{-15}$ | $-5.907 \cdot 10^{-15}$ | $-1.524 \cdot 10^{-7}$ | $4.002 \cdot 10^{-26}$ | $4.002 \cdot 10^{-26}$ | 0 |
| DeltaucHq3 | $6.708 \cdot 10^{-14}$ | $6.708 \cdot 10^{-14}$ | $-1.64 \cdot 10^{-7}$ | $4.545 \cdot 10^{-25}$ | $4.545 \cdot 10^{-25}$ | 0 |
| Deltauclq1 | $8 \cdot 10^{-12}$ | $8 \cdot 10^{-12}$ | $-1.625 \cdot 10^{-7}$ | $6.465 \cdot 10^{-21}$ | $6.465 \cdot 10^{-21}$ | 0 |
| Deltauclq3 | $7.045 \cdot 10^{-13}$ | $7.045 \cdot 10^{-13}$ | $-1.561 \cdot 10^{-7}$ | $5.693 \cdot 10^{-22}$ | $5.693 \cdot 10^{-22}$ | 0 |
| DeltaucuB | $-2.052 \cdot 10^{-24}$ | $-2.052 \cdot 10^{-24}$ | $2.777 \cdot 10^{-6}$ | $1.886 \cdot 10^{-33}$ | $1.886 \cdot 10^{-33}$ | $3.712 \cdot 10^{-7}$ |
| DeltaucuW | $-2.046 \cdot 10^{-23}$ | $-2.046 \cdot 10^{-23}$ | $-5.377 \cdot 10^{-7}$ | $7.805 \cdot 10^{-33}$ | $7.805 \cdot 10^{-33}$ | $-1.153 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.001033 | 0.001033 | $-1.935 \cdot 10^{-7}$ |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| Delta1dcqu1 | $3.857 \cdot 10^{-9}$ | $3.857 \cdot 10^{-9}$ | $3.629 \cdot 10^{-7}$ | $3.923 \cdot 10^{-14}$ | $3.923 \cdot 10^{-14}$ | 0 |
| Delta1dcqu8 | $3.205 \cdot 10^{-8}$ | $3.205 \cdot 10^{-8}$ | 0 | $3.079 \cdot 10^{-15}$ | $3.079 \cdot 10^{-15}$ | 0 |
| Delta1ucqu1 | $2.534 \cdot 10^{-7}$ | $2.534 \cdot 10^{-7}$ | $3.552 \cdot 10^{-7}$ | $4.818 \cdot 10^{-10}$ | $4.818 \cdot 10^{-10}$ | 0 |
| Delta1ucqu8 | $1.688 \cdot 10^{-5}$ | $1.688 \cdot 10^{-5}$ | 0 | $3.032 \cdot 10^{-10}$ | $3.032 \cdot 10^{-10}$ | 0 |
| Delta2cqu1 | $2.534 \cdot 10^{-7}$ | $2.534 \cdot 10^{-7}$ | $3.552 \cdot 10^{-7}$ | $4.818 \cdot 10^{-10}$ | $4.818 \cdot 10^{-10}$ | 0 |
| Delta2cqu8 | $5.963 \cdot 10^{-6}$ | $5.963 \cdot 10^{-6}$ | 0 | $1.071 \cdot 10^{-10}$ | $1.071 \cdot 10^{-10}$ | 0 |
| DeltacHu | $-5.67 \cdot 10^{-9}$ | $-5.67 \cdot 10^{-9}$ | $1.587 \cdot 10^{-7}$ | $6.717 \cdot 10^{-14}$ | $6.717 \cdot 10^{-14}$ | $-3.127 \cdot 10^{-7}$ |
| Deltacuu | $1.545 \cdot 10^{-7}$ | $1.545 \cdot 10^{-7}$ | $3.883 \cdot 10^{-7}$ | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| Deltacuu1 | $1.834 \cdot 10^{-6}$ | $1.834 \cdot 10^{-6}$ | 0 | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| DeltadcHq1 | $5.586 \cdot 10^{-12}$ | $5.586 \cdot 10^{-12}$ | $2.309 \cdot 10^{-6}$ | $4.616 \cdot 10^{-19}$ | $4.616 \cdot 10^{-19}$ | $5.633 \cdot 10^{-7}$ |
| DeltadcHq3 | $-5.586 \cdot 10^{-12}$ | $-5.586 \cdot 10^{-12}$ | $2.309 \cdot 10^{-6}$ | $4.616 \cdot 10^{-19}$ | $4.616 \cdot 10^{-19}$ | $5.633 \cdot 10^{-7}$ |
| Deltadcqq1 | $1.59 \cdot 10^{-9}$ | $1.59 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-7}$ | $2.082 \cdot 10^{-15}$ | $2.082 \cdot 10^{-15}$ | 0 |
| Deltadcqq11 | $1.372 \cdot 10^{-7}$ | $1.372 \cdot 10^{-7}$ | 0 | $2.824 \cdot 10^{-14}$ | $2.824 \cdot 10^{-14}$ | 0 |
| Deltadcqq3 | $1.59 \cdot 10^{-9}$ | $1.59 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-7}$ | $2.082 \cdot 10^{-15}$ | $2.082 \cdot 10^{-15}$ | 0 |
| Deltadcqq31 | $1.372 \cdot 10^{-7}$ | $1.372 \cdot 10^{-7}$ | 0 | $2.824 \cdot 10^{-14}$ | $2.824 \cdot 10^{-14}$ | 0 |
| DeltadcuB | $-3.322 \cdot 10^{-14}$ | $-3.322 \cdot 10^{-14}$ | $4.515 \cdot 10^{-7}$ | $1.352 \cdot 10^{-20}$ | $1.352 \cdot 10^{-20}$ | $3.699 \cdot 10^{-7}$ |
| DeltadcuG | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $9.274 \cdot 10^{-20}$ | $9.274 \cdot 10^{-20}$ | 0 |
| DeltadcuH | $-7.344 \cdot 10^{-23}$ | $-7.344 \cdot 10^{-23}$ | 0 | $6.355 \cdot 10^{-31}$ | $6.355 \cdot 10^{-31}$ | 0 |
| DeltadcuW | $-8.385 \cdot 10^{-14}$ | $-8.385 \cdot 10^{-14}$ | $-1.073 \cdot 10^{-7}$ | $2.707 \cdot 10^{-20}$ | $2.707 \cdot 10^{-20}$ | $-1.108 \cdot 10^{-7}$ |
| DeltaucHq1 | $-2.25 \cdot 10^{-8}$ | $-2.25 \cdot 10^{-8}$ | $-3.111 \cdot 10^{-7}$ | $3.586 \cdot 10^{-14}$ | $3.586 \cdot 10^{-14}$ | $-2.231 \cdot 10^{-7}$ |
| DeltaucHq3 | $-1.039 \cdot 10^{-9}$ | $-1.039 \cdot 10^{-9}$ | $2.31 \cdot 10^{-6}$ | $1.604 \cdot 10^{-14}$ | $1.604 \cdot 10^{-14}$ | $5.611 \cdot 10^{-7}$ |
| Deltaucqq1 | $4.012 \cdot 10^{-6}$ | $4.012 \cdot 10^{-6}$ | $-9.97 \cdot 10^{-8}$ | $9.772 \cdot 10^{-10}$ | $9.772 \cdot 10^{-10}$ | 0 |
| Deltaucqq11 | $2.552 \cdot 10^{-5}$ | $2.552 \cdot 10^{-5}$ | 0 | $9.772 \cdot 10^{-10}$ | $9.772 \cdot 10^{-10}$ | 0 |
| Deltaucqq3 | $2.957 \cdot 10^{-7}$ | $2.957 \cdot 10^{-7}$ | $-1.014 \cdot 10^{-7}$ | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| Deltaucqq31 | $1.882 \cdot 10^{-6}$ | $1.882 \cdot 10^{-6}$ | 0 | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| DeltaucB | $-9.267 \cdot 10^{-12}$ | $-9.267 \cdot 10^{-12}$ | $4.209 \cdot 10^{-7}$ | $5.366 \cdot 10^{-16}$ | $5.366 \cdot 10^{-16}$ | $3.541 \cdot 10^{-7}$ |

| | | | | | | |
|-----------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucuG | $-5.503 \cdot 10^{-10}$ | $-5.503 \cdot 10^{-10}$ | 0 | $3.225 \cdot 10^{-15}$ | $3.225 \cdot 10^{-15}$ | 0 |
| DeltaucuH | $-1.366 \cdot 10^{-20}$ | $-1.366 \cdot 10^{-20}$ | 0 | $2.199 \cdot 10^{-26}$ | $2.199 \cdot 10^{-26}$ | 0 |
| DeltaucuW | $-9.638 \cdot 10^{-12}$ | $-9.638 \cdot 10^{-12}$ | $-5.188 \cdot 10^{-8}$ | $8.247 \cdot 10^{-16}$ | $8.247 \cdot 10^{-16}$ | $-1.091 \cdot 10^{-7}$ |
| sm | 0 | 0 | 0 | 0.563 | 0.563 | 0 |

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

| | interference | | | square | | |
|-------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| Delta1dcqu1 | $-1.855 \cdot 10^{-10}$ | $-1.855 \cdot 10^{-10}$ | $3.775 \cdot 10^{-7}$ | $1.092 \cdot 10^{-18}$ | $1.092 \cdot 10^{-18}$ | 0 |
| Delta1dcqu8 | $-2.647 \cdot 10^{-9}$ | $-2.647 \cdot 10^{-9}$ | 0 | $2.572 \cdot 10^{-19}$ | $2.572 \cdot 10^{-19}$ | 0 |
| Delta1ucqu1 | $-2.575 \cdot 10^{-11}$ | $-2.575 \cdot 10^{-11}$ | $3.495 \cdot 10^{-7}$ | $5.297 \cdot 10^{-20}$ | $5.297 \cdot 10^{-20}$ | 0 |
| Delta1ucqu8 | $-8.557 \cdot 10^{-10}$ | $-8.557 \cdot 10^{-10}$ | 0 | $1.111 \cdot 10^{-20}$ | $1.111 \cdot 10^{-20}$ | 0 |
| Delta2cqu1 | $-2.575 \cdot 10^{-11}$ | $-2.575 \cdot 10^{-11}$ | $3.495 \cdot 10^{-7}$ | $5.297 \cdot 10^{-20}$ | $5.297 \cdot 10^{-20}$ | 0 |
| Delta2cqu8 | $-5.662 \cdot 10^{-10}$ | $-5.662 \cdot 10^{-10}$ | 0 | $1.177 \cdot 10^{-20}$ | $1.177 \cdot 10^{-20}$ | 0 |
| DeltacHu | $-3.356 \cdot 10^{-13}$ | $-3.356 \cdot 10^{-13}$ | $2.682 \cdot 10^{-7}$ | $3.838 \cdot 10^{-24}$ | $3.838 \cdot 10^{-24}$ | $-3.127 \cdot 10^{-7}$ |
| Deltacuu | $-1.357 \cdot 10^{-11}$ | $-1.357 \cdot 10^{-11}$ | $7.367 \cdot 10^{-8}$ | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |
| Deltacuu1 | $-1.357 \cdot 10^{-11}$ | $-1.357 \cdot 10^{-11}$ | $7.367 \cdot 10^{-8}$ | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |
| DeltadcHq1 | $2.322 \cdot 10^{-12}$ | $2.322 \cdot 10^{-12}$ | $-4.307 \cdot 10^{-8}$ | $2.714 \cdot 10^{-23}$ | $2.714 \cdot 10^{-23}$ | $2.948 \cdot 10^{-7}$ |
| DeltadcHq3 | $-2.322 \cdot 10^{-12}$ | $-2.322 \cdot 10^{-12}$ | $-4.307 \cdot 10^{-8}$ | $2.714 \cdot 10^{-23}$ | $2.714 \cdot 10^{-23}$ | $2.948 \cdot 10^{-7}$ |
| Deltadcqq1 | $-6.905 \cdot 10^{-11}$ | $-6.905 \cdot 10^{-11}$ | $-1.448 \cdot 10^{-8}$ | $4.293 \cdot 10^{-19}$ | $4.293 \cdot 10^{-19}$ | 0 |
| Deltadcqq11 | $-1.896 \cdot 10^{-9}$ | $-1.896 \cdot 10^{-9}$ | 0 | $2.38 \cdot 10^{-18}$ | $2.38 \cdot 10^{-18}$ | 0 |
| Deltadcqq3 | $-6.905 \cdot 10^{-11}$ | $-6.905 \cdot 10^{-11}$ | $-1.448 \cdot 10^{-8}$ | $4.293 \cdot 10^{-19}$ | $4.293 \cdot 10^{-19}$ | 0 |
| Deltadcqq31 | $-1.896 \cdot 10^{-9}$ | $-1.896 \cdot 10^{-9}$ | 0 | $2.38 \cdot 10^{-18}$ | $2.38 \cdot 10^{-18}$ | 0 |
| DeltadcuB | $3.147 \cdot 10^{-20}$ | $3.147 \cdot 10^{-20}$ | $1.906 \cdot 10^{-7}$ | $9.223 \cdot 10^{-30}$ | $9.223 \cdot 10^{-30}$ | $3.578 \cdot 10^{-7}$ |
| DeltadcuG | $-7.434 \cdot 10^{-20}$ | $-7.434 \cdot 10^{-20}$ | 0 | $1.023 \cdot 10^{-29}$ | $1.023 \cdot 10^{-29}$ | 0 |
| DeltadcuH | $2.927 \cdot 10^{-20}$ | $2.927 \cdot 10^{-20}$ | 0 | $1.023 \cdot 10^{-40}$ | $1.023 \cdot 10^{-40}$ | 0 |
| DeltadcuW | $1.254 \cdot 10^{-20}$ | $1.254 \cdot 10^{-20}$ | $-1.595 \cdot 10^{-7}$ | $1.02 \cdot 10^{-29}$ | $1.02 \cdot 10^{-29}$ | $-9.805 \cdot 10^{-8}$ |
| DeltaucHq1 | $4.782 \cdot 10^{-12}$ | $4.782 \cdot 10^{-12}$ | $-1.046 \cdot 10^{-7}$ | $1.223 \cdot 10^{-23}$ | $1.223 \cdot 10^{-23}$ | $-8.18 \cdot 10^{-8}$ |

| | | | | | | |
|-------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| DeltaucHq3 | $-4.967 \cdot 10^{-13}$ | $-4.967 \cdot 10^{-13}$ | $-4.026 \cdot 10^{-8}$ | $1.242 \cdot 10^{-24}$ | $1.242 \cdot 10^{-24}$ | $3.22 \cdot 10^{-7}$ |
| Deltaucqq1 | $-4.056 \cdot 10^{-10}$ | $-4.056 \cdot 10^{-10}$ | $-2.465 \cdot 10^{-8}$ | $1.089 \cdot 10^{-19}$ | $1.089 \cdot 10^{-19}$ | 0 |
| Deltaucqq11 | $-4.056 \cdot 10^{-10}$ | $-4.056 \cdot 10^{-10}$ | $-2.465 \cdot 10^{-8}$ | $1.089 \cdot 10^{-19}$ | $1.089 \cdot 10^{-19}$ | 0 |
| Deltaucqq3 | $-1.477 \cdot 10^{-11}$ | $-1.477 \cdot 10^{-11}$ | 0 | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |
| Deltaucqq31 | $-1.477 \cdot 10^{-11}$ | $-1.477 \cdot 10^{-11}$ | 0 | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |
| DeltaucuB | $2.176 \cdot 10^{-21}$ | $2.176 \cdot 10^{-21}$ | $1.838 \cdot 10^{-7}$ | $2.745 \cdot 10^{-31}$ | $2.745 \cdot 10^{-31}$ | $3.642 \cdot 10^{-7}$ |
| DeltaucuG | $-1.59 \cdot 10^{-20}$ | $-1.59 \cdot 10^{-20}$ | 0 | $4.68 \cdot 10^{-31}$ | $4.68 \cdot 10^{-31}$ | 0 |
| DeltaucuH | $6.262 \cdot 10^{-21}$ | $6.262 \cdot 10^{-21}$ | 0 | $4.684 \cdot 10^{-42}$ | $4.684 \cdot 10^{-42}$ | 0 |
| DeltaucuW | $7.92 \cdot 10^{-21}$ | $7.92 \cdot 10^{-21}$ | $-8.838 \cdot 10^{-8}$ | $7.077 \cdot 10^{-31}$ | $7.077 \cdot 10^{-31}$ | $-9.892 \cdot 10^{-8}$ |
| sm | 0 | 0 | 0 | 29.63 | 29.63 | 0 |

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

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 38.8 | 38.8 | $-4.896 \cdot 10^{-7}$ |

1.88 $zz \rightarrow zz$

| | interference | | | square | | |
|----|--------------|------|-------------------------------|--------|--------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| sm | 0 | 0 | 0 | 0.0619 | 0.0619 | 0 |

2 By parameter point

2.1 Delta1dcqd1

| interference | square |
|--------------|--------|
|--------------|--------|

| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| $b\bar{b} \rightarrow b\bar{b}$ | 0.0001703 | 0.0001703 | $3.523 \cdot 10^{-7}$ | $6.678 \cdot 10^{-7}$ | $6.678 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $-5.41 \cdot 10^{-7}$ | $-5.41 \cdot 10^{-7}$ | $3.697 \cdot 10^{-7}$ | $2.146 \cdot 10^{-8}$ | $2.146 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-2.377 \cdot 10^{-6}$ | $-2.377 \cdot 10^{-6}$ | $3.787 \cdot 10^{-7}$ | $5.548 \cdot 10^{-8}$ | $5.548 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-3.367 \cdot 10^{-12}$ | $-3.367 \cdot 10^{-12}$ | $3.563 \cdot 10^{-7}$ | $1.73 \cdot 10^{-19}$ | $1.73 \cdot 10^{-19}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-3.154 \cdot 10^{-11}$ | $-3.154 \cdot 10^{-11}$ | $3.488 \cdot 10^{-7}$ | $6.426 \cdot 10^{-16}$ | $6.426 \cdot 10^{-16}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-1.613 \cdot 10^{-9}$ | $-1.613 \cdot 10^{-9}$ | $3.72 \cdot 10^{-7}$ | $3.157 \cdot 10^{-14}$ | $3.157 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $2.28 \cdot 10^{-8}$ | $2.28 \cdot 10^{-8}$ | $3.508 \cdot 10^{-7}$ | $1.797 \cdot 10^{-13}$ | $1.797 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-1.445 \cdot 10^{-6}$ | $-1.445 \cdot 10^{-6}$ | $3.46 \cdot 10^{-7}$ | $1.909 \cdot 10^{-8}$ | $1.909 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-3.21 \cdot 10^{-6}$ | $-3.21 \cdot 10^{-6}$ | $3.738 \cdot 10^{-7}$ | $9.182 \cdot 10^{-8}$ | $9.182 \cdot 10^{-8}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $2.841 \cdot 10^{-11}$ | $2.841 \cdot 10^{-11}$ | $3.52 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |

2.2 Delta1dcqd8

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.001441 | -0.001441 | 0 | $1.805 \cdot 10^{-7}$ | $1.805 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.0002318 | 0.0002318 | 0 | $4.51 \cdot 10^{-8}$ | $4.51 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $6.593 \cdot 10^{-5}$ | $6.593 \cdot 10^{-5}$ | 0 | $1.063 \cdot 10^{-8}$ | $1.063 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $2.89 \cdot 10^{-10}$ | $2.89 \cdot 10^{-10}$ | 0 | $7.018 \cdot 10^{-20}$ | $7.018 \cdot 10^{-20}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $2.366 \cdot 10^{-8}$ | $2.366 \cdot 10^{-8}$ | 0 | $2.278 \cdot 10^{-15}$ | $2.278 \cdot 10^{-15}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $1.134 \cdot 10^{-7}$ | $1.134 \cdot 10^{-7}$ | 0 | $1.089 \cdot 10^{-14}$ | $1.089 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0003702 | -0.0003702 | 0 | $3.618 \cdot 10^{-14}$ | $3.618 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.0002887 | 0.0002887 | 0 | $5.396 \cdot 10^{-8}$ | $5.396 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.0002278 | 0.0002278 | 0 | $4.211 \cdot 10^{-8}$ | $4.211 \cdot 10^{-8}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.511 \cdot 10^{-9}$ | $-1.511 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |

2.3 Delta1dcqu1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.0001103 | -0.0001103 | 0 | $9.736 \cdot 10^{-8}$ | $9.736 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $4.73 \cdot 10^{-6}$ | $4.73 \cdot 10^{-6}$ | $3.594 \cdot 10^{-7}$ | $9.377 \cdot 10^{-8}$ | $9.377 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $4.675 \cdot 10^{-12}$ | $4.675 \cdot 10^{-12}$ | $3.636 \cdot 10^{-7}$ | $1.157 \cdot 10^{-19}$ | $1.157 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $1.447 \cdot 10^{-5}$ | $1.447 \cdot 10^{-5}$ | $3.455 \cdot 10^{-7}$ | $2.575 \cdot 10^{-7}$ | $2.575 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $2.658 \cdot 10^{-12}$ | $2.658 \cdot 10^{-12}$ | $1.128 \cdot 10^{-6}$ | $1.744 \cdot 10^{-19}$ | $1.744 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $1.133 \cdot 10^{-9}$ | $1.133 \cdot 10^{-9}$ | $1.059 \cdot 10^{-6}$ | $2.82 \cdot 10^{-14}$ | $2.82 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.0001369 | -0.0001369 | $2.922 \cdot 10^{-7}$ | $2.838 \cdot 10^{-6}$ | $2.838 \cdot 10^{-6}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.366 \cdot 10^{-10}$ | $-1.366 \cdot 10^{-10}$ | $4.394 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $3.857 \cdot 10^{-9}$ | $3.857 \cdot 10^{-9}$ | $3.629 \cdot 10^{-7}$ | $3.923 \cdot 10^{-14}$ | $3.923 \cdot 10^{-14}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.855 \cdot 10^{-10}$ | $-1.855 \cdot 10^{-10}$ | $3.775 \cdot 10^{-7}$ | $1.092 \cdot 10^{-18}$ | $1.092 \cdot 10^{-18}$ | 0 |

2.4 Delta1dcqu8

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-4.299 \cdot 10^{-5}$ | $-4.299 \cdot 10^{-5}$ | $-2.326 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.0001269 | 0.0001269 | 0 | $2.468 \cdot 10^{-8}$ | $2.468 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $3.74 \cdot 10^{-12}$ | $3.74 \cdot 10^{-12}$ | 0 | $9.079 \cdot 10^{-22}$ | $9.079 \cdot 10^{-22}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $8.472 \cdot 10^{-5}$ | $8.472 \cdot 10^{-5}$ | 0 | $1.427 \cdot 10^{-8}$ | $1.427 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $4.136 \cdot 10^{-11}$ | $4.136 \cdot 10^{-11}$ | 0 | $6.61 \cdot 10^{-21}$ | $6.61 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $5.753 \cdot 10^{-8}$ | $5.753 \cdot 10^{-8}$ | 0 | $5 \cdot 10^{-15}$ | $5 \cdot 10^{-15}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.004755 | -0.004755 | 0 | $5.521 \cdot 10^{-7}$ | $5.521 \cdot 10^{-7}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.258 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $3.205 \cdot 10^{-8}$ | $3.205 \cdot 10^{-8}$ | 0 | $3.079 \cdot 10^{-15}$ | $3.079 \cdot 10^{-15}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-2.647 \cdot 10^{-9}$ | $-2.647 \cdot 10^{-9}$ | 0 | $2.572 \cdot 10^{-19}$ | $2.572 \cdot 10^{-19}$ | 0 |

2.5 Delta1ucqd1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | 0.0504 | 0.0504 | $3.571 \cdot 10^{-7}$ | 2.37 | 2.37 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | -0.008744 | -0.008744 | $3.545 \cdot 10^{-7}$ | 0.5922 | 0.5922 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.003737 | -0.003737 | $3.479 \cdot 10^{-7}$ | 0.1396 | 0.1396 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-1.314 \cdot 10^{-12}$ | $-1.314 \cdot 10^{-12}$ | $3.804 \cdot 10^{-7}$ | $1.445 \cdot 10^{-20}$ | $1.445 \cdot 10^{-20}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-9.376 \cdot 10^{-8}$ | $-9.376 \cdot 10^{-8}$ | $3.626 \cdot 10^{-7}$ | $3.566 \cdot 10^{-10}$ | $3.566 \cdot 10^{-10}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-4.659 \cdot 10^{-7}$ | $-4.659 \cdot 10^{-7}$ | $3.435 \cdot 10^{-7}$ | $1.705 \cdot 10^{-9}$ | $1.705 \cdot 10^{-9}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.001877 | -0.001877 | $2.664 \cdot 10^{-7}$ | $5.663 \cdot 10^{-9}$ | $5.663 \cdot 10^{-9}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.01175 | -0.01175 | $3.406 \cdot 10^{-7}$ | 0.7086 | 0.7086 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.009533 | -0.009533 | $3.671 \cdot 10^{-7}$ | 0.5529 | 0.5529 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $7.361 \cdot 10^{-12}$ | $7.361 \cdot 10^{-12}$ | $3.532 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |

2.6 Delta1ucqd8

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | -18.55 | -18.55 | 0 | 0.433 | 0.433 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.04188 | 0.04188 | 0 | 0.01391 | 0.01391 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.1275 | 0.1275 | 0 | 0.03597 | 0.03597 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $3.388 \cdot 10^{-11}$ | $3.388 \cdot 10^{-11}$ | 0 | $1.76 \cdot 10^{-21}$ | $1.76 \cdot 10^{-21}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $2.766 \cdot 10^{-7}$ | $2.766 \cdot 10^{-7}$ | 0 | $4.966 \cdot 10^{-12}$ | $4.966 \cdot 10^{-12}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $1.359 \cdot 10^{-5}$ | $1.359 \cdot 10^{-5}$ | 0 | $2.44 \cdot 10^{-10}$ | $2.44 \cdot 10^{-10}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0002107 | -0.0002107 | 0 | $1.388 \cdot 10^{-9}$ | $1.388 \cdot 10^{-9}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.05661 | 0.05661 | 0 | 0.01238 | 0.01238 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.1985 | 0.1985 | 0 | 0.05954 | 0.05954 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.691 \cdot 10^{-10}$ | $-2.691 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |

2.7 Delta1ucqu1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.152 | -0.152 | $-6.578 \cdot 10^{-8}$ | 0.1619 | 0.1619 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.00957 | 0.00957 | $3.553 \cdot 10^{-7}$ | 0.3241 | 0.3241 | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $3.528 \cdot 10^{-14}$ | $3.528 \cdot 10^{-14}$ | $3.685 \cdot 10^{-7}$ | $1.87 \cdot 10^{-22}$ | $1.87 \cdot 10^{-22}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.008681 | 0.008681 | $3.571 \cdot 10^{-7}$ | 0.1874 | 0.1874 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-6.821 \cdot 10^{-13}$ | $-6.821 \cdot 10^{-13}$ | $-3.079 \cdot 10^{-7}$ | $1.361 \cdot 10^{-21}$ | $1.361 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $1.029 \cdot 10^{-7}$ | $1.029 \cdot 10^{-7}$ | $1.846 \cdot 10^{-6}$ | $7.824 \cdot 10^{-10}$ | $7.824 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.835 | -0.835 | $1.677 \cdot 10^{-7}$ | 7.467 | 7.467 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.1 \cdot 10^{-11}$ | $-1.1 \cdot 10^{-11}$ | $3.637 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $2.534 \cdot 10^{-7}$ | $2.534 \cdot 10^{-7}$ | $3.552 \cdot 10^{-7}$ | $4.818 \cdot 10^{-10}$ | $4.818 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-2.575 \cdot 10^{-11}$ | $-2.575 \cdot 10^{-11}$ | $3.495 \cdot 10^{-7}$ | $5.297 \cdot 10^{-20}$ | $5.297 \cdot 10^{-20}$ | 0 |

2.8 Delta1ucqu8

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.04507 | -0.04507 | $-2.219 \cdot 10^{-8}$ | 0.06313 | 0.06313 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.183 | 0.183 | 0 | 0.0608 | 0.0608 | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $2.265 \cdot 10^{-11}$ | $2.265 \cdot 10^{-11}$ | 0 | $1.176 \cdot 10^{-21}$ | $1.176 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.5218 | 0.5218 | 0 | 0.167 | 0.167 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $3.717 \cdot 10^{-11}$ | $3.717 \cdot 10^{-11}$ | 0 | $1.774 \cdot 10^{-21}$ | $1.774 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $1.318 \cdot 10^{-5}$ | $1.318 \cdot 10^{-5}$ | 0 | $2.18 \cdot 10^{-10}$ | $2.18 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -4.22 | -4.22 | 0 | 1.803 | 1.803 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-8.005 \cdot 10^{-10}$ | $-8.005 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.688 \cdot 10^{-5}$ | $1.688 \cdot 10^{-5}$ | 0 | $3.032 \cdot 10^{-10}$ | $3.032 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-8.557 \cdot 10^{-10}$ | $-8.557 \cdot 10^{-10}$ | 0 | $1.111 \cdot 10^{-20}$ | $1.111 \cdot 10^{-20}$ | 0 |

2.9 Delta2cqd1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | $2.951 \cdot 10^{-5}$ | $2.951 \cdot 10^{-5}$ | $3.389 \cdot 10^{-7}$ | $8.123 \cdot 10^{-7}$ | $8.123 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $-5.117 \cdot 10^{-6}$ | $-5.117 \cdot 10^{-6}$ | $3.518 \cdot 10^{-7}$ | $2.029 \cdot 10^{-7}$ | $2.029 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-2.188 \cdot 10^{-6}$ | $-2.188 \cdot 10^{-6}$ | $3.2 \cdot 10^{-7}$ | $4.784 \cdot 10^{-8}$ | $4.784 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-4.922 \cdot 10^{-6}$ | $-4.922 \cdot 10^{-6}$ | $3.657 \cdot 10^{-7}$ | $2.027 \cdot 10^{-7}$ | $2.027 \cdot 10^{-7}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.268 \cdot 10^{-12}$ | $-1.268 \cdot 10^{-12}$ | $3.155 \cdot 10^{-7}$ | $6.519 \cdot 10^{-20}$ | $6.519 \cdot 10^{-20}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-2.504 \cdot 10^{-9}$ | $-2.504 \cdot 10^{-9}$ | $3.594 \cdot 10^{-7}$ | $4.902 \cdot 10^{-14}$ | $4.902 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-1.007 \cdot 10^{-5}$ | $-1.007 \cdot 10^{-5}$ | $1.987 \cdot 10^{-7}$ | $1.628 \cdot 10^{-13}$ | $1.628 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-8.583 \cdot 10^{-12}$ | $-8.583 \cdot 10^{-12}$ | $3.495 \cdot 10^{-7}$ | $3.783 \cdot 10^{-19}$ | $3.783 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-2.763 \cdot 10^{-9}$ | $-2.763 \cdot 10^{-9}$ | $3.62 \cdot 10^{-7}$ | $4.643 \cdot 10^{-14}$ | $4.643 \cdot 10^{-14}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $3.441 \cdot 10^{-11}$ | $3.441 \cdot 10^{-11}$ | $3.488 \cdot 10^{-7}$ | $5.177 \cdot 10^{-19}$ | $5.177 \cdot 10^{-19}$ | 0 |

2.10 Delta2cqd8

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.01086 | -0.01086 | 0 | $1.484 \cdot 10^{-7}$ | $1.484 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $2.452 \cdot 10^{-5}$ | $2.452 \cdot 10^{-5}$ | 0 | $4.768 \cdot 10^{-9}$ | $4.768 \cdot 10^{-9}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $7.466 \cdot 10^{-5}$ | $7.466 \cdot 10^{-5}$ | 0 | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.0001269 | 0.0001269 | 0 | $2.468 \cdot 10^{-8}$ | $2.468 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $3.74 \cdot 10^{-12}$ | $3.74 \cdot 10^{-12}$ | 0 | $9.079 \cdot 10^{-22}$ | $9.079 \cdot 10^{-22}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $7.304 \cdot 10^{-8}$ | $7.304 \cdot 10^{-8}$ | 0 | $7.016 \cdot 10^{-15}$ | $7.016 \cdot 10^{-15}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-1.13 \cdot 10^{-6}$ | $-1.13 \cdot 10^{-6}$ | 0 | $3.992 \cdot 10^{-14}$ | $3.992 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $4.136 \cdot 10^{-11}$ | $4.136 \cdot 10^{-11}$ | 0 | $6.61 \cdot 10^{-21}$ | $6.61 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $5.753 \cdot 10^{-8}$ | $5.753 \cdot 10^{-8}$ | 0 | $5 \cdot 10^{-15}$ | $5 \cdot 10^{-15}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.258 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-9}$ | 0 | $1.15 \cdot 10^{-19}$ | $1.15 \cdot 10^{-19}$ | 0 |

2.11 Delta2cqu1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.152 | -0.152 | $-6.578 \cdot 10^{-8}$ | 0.1619 | 0.1619 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $1.496 \cdot 10^{-12}$ | $1.496 \cdot 10^{-12}$ | $3.342 \cdot 10^{-7}$ | $7.919 \cdot 10^{-21}$ | $7.919 \cdot 10^{-21}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $1.22 \cdot 10^{-8}$ | $1.22 \cdot 10^{-8}$ | $3.28 \cdot 10^{-7}$ | $2.235 \cdot 10^{-11}$ | $2.235 \cdot 10^{-11}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.01175 | 0.01175 | $1.703 \cdot 10^{-7}$ | 0.1874 | 0.1874 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.004363 | -0.004363 | $-2.979 \cdot 10^{-7}$ | 0.05571 | 0.05571 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.001904 | 0.001904 | $1.838 \cdot 10^{-6}$ | 0.2679 | 0.2679 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.835 | -0.835 | $1.677 \cdot 10^{-7}$ | 7.467 | 7.467 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.1 \cdot 10^{-11}$ | $-1.1 \cdot 10^{-11}$ | $3.637 \cdot 10^{-7}$ | $2.369 \cdot 10^{-20}$ | $2.369 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $2.534 \cdot 10^{-7}$ | $2.534 \cdot 10^{-7}$ | $3.552 \cdot 10^{-7}$ | $4.818 \cdot 10^{-10}$ | $4.818 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-2.575 \cdot 10^{-11}$ | $-2.575 \cdot 10^{-11}$ | $3.495 \cdot 10^{-7}$ | $5.297 \cdot 10^{-20}$ | $5.297 \cdot 10^{-20}$ | 0 |

2.12 Delta2cqu8

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.07343 | -0.07343 | $-1.362 \cdot 10^{-8}$ | 0.03597 | 0.03597 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $3.388 \cdot 10^{-11}$ | $3.388 \cdot 10^{-11}$ | 0 | $1.76 \cdot 10^{-21}$ | $1.76 \cdot 10^{-21}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $2.766 \cdot 10^{-7}$ | $2.766 \cdot 10^{-7}$ | 0 | $4.966 \cdot 10^{-12}$ | $4.966 \cdot 10^{-12}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.1447 | 0.1447 | 0 | 0.04163 | 0.04163 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.05661 | 0.05661 | 0 | 0.01238 | 0.01238 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.1985 | 0.1985 | 0 | 0.05954 | 0.05954 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -8.123 | -8.123 | 0 | 1.611 | 1.611 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.691 \cdot 10^{-10}$ | $-2.691 \cdot 10^{-10}$ | 0 | $5.265 \cdot 10^{-21}$ | $5.265 \cdot 10^{-21}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $5.963 \cdot 10^{-6}$ | $5.963 \cdot 10^{-6}$ | 0 | $1.071 \cdot 10^{-10}$ | $1.071 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-5.662 \cdot 10^{-10}$ | $-5.662 \cdot 10^{-10}$ | 0 | $1.177 \cdot 10^{-20}$ | $1.177 \cdot 10^{-20}$ | 0 |

2.13 DeltacHd

| | interference | | | square | | |
|---|-------------------------|-------------------------|-----------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z\bar{b}b$ | $-6.7 \cdot 10^{-11}$ | $-6.7 \cdot 10^{-11}$ | $2.836 \cdot 10^{-7}$ | $2.098 \cdot 10^{-13}$ | $2.098 \cdot 10^{-13}$ | 0 |
| $HH \rightarrow z\bar{d}d$ | $-2.126 \cdot 10^{-16}$ | $-2.126 \cdot 10^{-16}$ | $3.292 \cdot 10^{-7}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| $H\bar{z} \rightarrow b\bar{b}$ | $-2.449 \cdot 10^{-5}$ | $-2.449 \cdot 10^{-5}$ | $3.674 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| $H\bar{z} \rightarrow s\bar{s}$ | $-1.135 \cdot 10^{-8}$ | $-1.135 \cdot 10^{-8}$ | $3.524 \cdot 10^{-7}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $-1.742 \cdot 10^{-11}$ | $-1.742 \cdot 10^{-11}$ | $2.296 \cdot 10^{-7}$ | $6.962 \cdot 10^{-14}$ | $6.962 \cdot 10^{-14}$ | $-1.005 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $-1.088 \cdot 10^{-17}$ | $-1.088 \cdot 10^{-17}$ | $2.757 \cdot 10^{-7}$ | $5.692 \cdot 10^{-26}$ | $5.692 \cdot 10^{-26}$ | $-8.784 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $-2.319 \cdot 10^{-9}$ | $-2.319 \cdot 10^{-9}$ | $3.882 \cdot 10^{-6}$ | $1.01 \cdot 10^{-12}$ | $1.01 \cdot 10^{-12}$ | $-9.901 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | $-6 \cdot 10^{-8}$ | $-6 \cdot 10^{-8}$ | $3.5 \cdot 10^{-7}$ | $6.733 \cdot 10^{-12}$ | $6.733 \cdot 10^{-12}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | $1.82 \cdot 10^{-6}$ | $1.82 \cdot 10^{-6}$ | $3.846 \cdot 10^{-7}$ | $1.522 \cdot 10^{-10}$ | $1.522 \cdot 10^{-10}$ | $-6.57 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $-3.725 \cdot 10^{-8}$ | $-3.725 \cdot 10^{-8}$ | $3.221 \cdot 10^{-7}$ | $1.02 \cdot 10^{-11}$ | $1.02 \cdot 10^{-11}$ | $-9.806 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $-2.767 \cdot 10^{-8}$ | $-2.767 \cdot 10^{-8}$ | $7.59 \cdot 10^{-7}$ | $2.341 \cdot 10^{-12}$ | $2.341 \cdot 10^{-12}$ | $4.271 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $2.43 \cdot 10^{-8}$ | $2.43 \cdot 10^{-8}$ | $1.234 \cdot 10^{-7}$ | $6.865 \cdot 10^{-12}$ | $6.865 \cdot 10^{-12}$ | $-3.059 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $-3.73 \cdot 10^{-14}$ | $-3.73 \cdot 10^{-14}$ | $8.043 \cdot 10^{-7}$ | $3.642 \cdot 10^{-24}$ | $3.642 \cdot 10^{-24}$ | $8.237 \cdot 10^{-8}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $-5.185 \cdot 10^{-14}$ | $-5.185 \cdot 10^{-14}$ | $7.328 \cdot 10^{-7}$ | $1.876 \cdot 10^{-24}$ | $1.876 \cdot 10^{-24}$ | $6.395 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $-1.826 \cdot 10^{-11}$ | $-1.826 \cdot 10^{-11}$ | $2.738 \cdot 10^{-7}$ | $2.464 \cdot 10^{-18}$ | $2.464 \cdot 10^{-18}$ | $-1.218 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$ | $-1.345 \cdot 10^{-11}$ | $-1.345 \cdot 10^{-11}$ | $3.716 \cdot 10^{-7}$ | $7.473 \cdot 10^{-19}$ | $7.473 \cdot 10^{-19}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $6.888 \cdot 10^{-6}$ | $6.888 \cdot 10^{-6}$ | $8.711 \cdot 10^{-8}$ | $9.835 \cdot 10^{-14}$ | $9.835 \cdot 10^{-14}$ | $-8.134 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $4.549 \cdot 10^{-14}$ | $4.549 \cdot 10^{-14}$ | $1.539 \cdot 10^{-7}$ | $1.225 \cdot 10^{-23}$ | $1.225 \cdot 10^{-23}$ | $-3.264 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $1.243 \cdot 10^{-11}$ | $1.243 \cdot 10^{-11}$ | $8.046 \cdot 10^{-8}$ | $1.516 \cdot 10^{-18}$ | $1.516 \cdot 10^{-18}$ | $-3.297 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $1.198 \cdot 10^{-13}$ | $1.198 \cdot 10^{-13}$ | $-1.92 \cdot 10^{-6}$ | $1.795 \cdot 10^{-22}$ | $1.795 \cdot 10^{-22}$ | $-2.228 \cdot 10^{-7}$ |

2.14 DeltacHu

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

| | | | | | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $HH \rightarrow z c \bar{c}$ | $1.166 \cdot 10^{-11}$ | $1.166 \cdot 10^{-11}$ | $3.43 \cdot 10^{-7}$ | $9.24 \cdot 10^{-16}$ | $9.24 \cdot 10^{-16}$ | 0 |
| $HH \rightarrow z t \bar{t}$ | -0.0001435 | -0.0001435 | $-6.97 \cdot 10^{-8}$ | $5.654 \cdot 10^{-5}$ | $5.654 \cdot 10^{-5}$ | 0 |
| $H z \rightarrow t \bar{t}$ | -2.196 | -2.196 | $-4.553 \cdot 10^{-8}$ | 1.355 | 1.355 | 0 |
| $H z \rightarrow u \bar{u}$ | $1.195 \cdot 10^{-11}$ | $1.195 \cdot 10^{-11}$ | $3.348 \cdot 10^{-7}$ | $2.153 \cdot 10^{-20}$ | $2.153 \cdot 10^{-20}$ | 0 |
| $W^+ W^- \rightarrow H c \bar{c}$ | $4.362 \cdot 10^{-12}$ | $4.362 \cdot 10^{-12}$ | $2.292 \cdot 10^{-7}$ | $4.068 \cdot 10^{-16}$ | $4.068 \cdot 10^{-16}$ | $-1.229 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | $-1.209 \cdot 10^{-5}$ | $-1.209 \cdot 10^{-5}$ | 0 | $8.315 \cdot 10^{-6}$ | $8.315 \cdot 10^{-6}$ | 0 |
| $b \bar{b} \rightarrow t \bar{t}$ | -0.0009805 | -0.0009805 | $-1.122 \cdot 10^{-7}$ | $8.137 \cdot 10^{-6}$ | $8.137 \cdot 10^{-6}$ | $-6.145 \cdot 10^{-8}$ |
| $b \bar{b} \rightarrow u \bar{u}$ | $1.988 \cdot 10^{-14}$ | $1.988 \cdot 10^{-14}$ | $3.018 \cdot 10^{-7}$ | $7.262 \cdot 10^{-25}$ | $7.262 \cdot 10^{-25}$ | $-1.239 \cdot 10^{-7}$ |
| $c \bar{c} \rightarrow \mu^+ \mu^-$ | $1.514 \cdot 10^{-10}$ | $1.514 \cdot 10^{-10}$ | $1.011 \cdot 10^{-5}$ | $8.729 \cdot 10^{-15}$ | $8.729 \cdot 10^{-15}$ | $-1.947 \cdot 10^{-7}$ |
| $d \bar{d} \rightarrow c \bar{c}$ | $3.029 \cdot 10^{-9}$ | $3.029 \cdot 10^{-9}$ | $4.952 \cdot 10^{-7}$ | $1.988 \cdot 10^{-14}$ | $1.988 \cdot 10^{-14}$ | $-5.031 \cdot 10^{-8}$ |
| $t \bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $9.713 \cdot 10^{-5}$ | $9.713 \cdot 10^{-5}$ | $4.427 \cdot 10^{-7}$ | $1.081 \cdot 10^{-5}$ | $1.081 \cdot 10^{-5}$ | 0 |
| $t \bar{t} \rightarrow \tau^+ \tau^-$ | $6.66 \cdot 10^{-5}$ | $6.66 \cdot 10^{-5}$ | $1.051 \cdot 10^{-6}$ | $3.053 \cdot 10^{-6}$ | $3.053 \cdot 10^{-6}$ | $2.948 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow c \bar{c}$ | $-9.729 \cdot 10^{-5}$ | $-9.729 \cdot 10^{-5}$ | $-1.131 \cdot 10^{-7}$ | $1.846 \cdot 10^{-5}$ | $1.846 \cdot 10^{-5}$ | $-3.25 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow d \bar{d}$ | 0.0001084 | 0.0001084 | $4.613 \cdot 10^{-7}$ | $3.556 \cdot 10^{-5}$ | $3.556 \cdot 10^{-5}$ | $-1.406 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow s \bar{s}$ | $7.914 \cdot 10^{-5}$ | $7.914 \cdot 10^{-5}$ | $5.812 \cdot 10^{-7}$ | $2.783 \cdot 10^{-5}$ | $2.783 \cdot 10^{-5}$ | $-1.437 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow t \bar{t}$ | -0.04805 | -0.04805 | $4.163 \cdot 10^{-8}$ | 0.008736 | 0.008736 | $-2.289 \cdot 10^{-8}$ |
| $u \bar{d} \rightarrow u \bar{d}$ | $3.375 \cdot 10^{-13}$ | $3.375 \cdot 10^{-13}$ | $3.556 \cdot 10^{-7}$ | $1.145 \cdot 10^{-23}$ | $1.145 \cdot 10^{-23}$ | $-8.736 \cdot 10^{-8}$ |
| $u \bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $3.359 \cdot 10^{-16}$ | $3.359 \cdot 10^{-16}$ | $3.572 \cdot 10^{-7}$ | $5.033 \cdot 10^{-27}$ | $5.033 \cdot 10^{-27}$ | 0 |
| $u \bar{u} \rightarrow c \bar{c}$ | $-5.67 \cdot 10^{-9}$ | $-5.67 \cdot 10^{-9}$ | $1.587 \cdot 10^{-7}$ | $6.717 \cdot 10^{-14}$ | $6.717 \cdot 10^{-14}$ | $-3.127 \cdot 10^{-7}$ |
| $u \bar{u} \rightarrow u \bar{u}$ | $-3.356 \cdot 10^{-13}$ | $-3.356 \cdot 10^{-13}$ | $2.682 \cdot 10^{-7}$ | $3.838 \cdot 10^{-24}$ | $3.838 \cdot 10^{-24}$ | $-3.127 \cdot 10^{-7}$ |

2.15 Deltacdd

| | interference | | | square | | |
|-----------------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b \bar{b} \rightarrow b \bar{b}$ | -0.0004884 | -0.0004884 | $2.047 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |
| $b \bar{b} \rightarrow d \bar{d}$ | $7.849 \cdot 10^{-7}$ | $7.849 \cdot 10^{-7}$ | $3.567 \cdot 10^{-7}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| $d \bar{d} \rightarrow s \bar{s}$ | $4.096 \cdot 10^{-10}$ | $4.096 \cdot 10^{-10}$ | $3.662 \cdot 10^{-7}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |
| $s \bar{s} \rightarrow s \bar{s}$ | -0.0007549 | -0.0007549 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |

2.16 Deltacdd1

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.01797 | -0.01797 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.0004254 | 0.0004254 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $5.401 \cdot 10^{-8}$ | $5.401 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-7.512 \cdot 10^{-7}$ | $-7.512 \cdot 10^{-7}$ | 0 | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |

2.17 Deltaced

| | interference | | | square | | |
|-----------------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $3.358 \cdot 10^{-6}$ | $3.358 \cdot 10^{-6}$ | $3.574 \cdot 10^{-7}$ | $2.261 \cdot 10^{-8}$ | $2.261 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $1.072 \cdot 10^{-12}$ | $1.072 \cdot 10^{-12}$ | $3.731 \cdot 10^{-7}$ | $9.012 \cdot 10^{-21}$ | $9.012 \cdot 10^{-21}$ | 0 |

2.18 Deltaceu

| | interference | | | square | | |
|-------------------------------------|------------------------|------------------------|-----------------------|-----------------------|-----------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-5.823 \cdot 10^{-7}$ | $-5.823 \cdot 10^{-7}$ | $3.606 \cdot 10^{-7}$ | $1.81 \cdot 10^{-10}$ | $1.81 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | -0.02399 | -0.02399 | $3.335 \cdot 10^{-7}$ | 0.1356 | 0.1356 | 0 |

2.19 Deltacld

| | interference | | | square | | |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $2.456 \cdot 10^{-6}$ | $2.456 \cdot 10^{-6}$ | $3.258 \cdot 10^{-7}$ | $3.328 \cdot 10^{-8}$ | $3.328 \cdot 10^{-8}$ | 0 |

| | | | | | | |
|--|------------------------|------------------------|-----------------------|------------------------|------------------------|---|
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $2.336 \cdot 10^{-7}$ | $2.336 \cdot 10^{-7}$ | $3.853 \cdot 10^{-7}$ | $3.137 \cdot 10^{-9}$ | $3.137 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow e^+ e^-$ | $6.07 \cdot 10^{-12}$ | $6.07 \cdot 10^{-12}$ | $3.625 \cdot 10^{-7}$ | $1.027 \cdot 10^{-19}$ | $1.027 \cdot 10^{-19}$ | 0 |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $2.663 \cdot 10^{-10}$ | $2.663 \cdot 10^{-10}$ | $3.755 \cdot 10^{-7}$ | $1.764 \cdot 10^{-15}$ | $1.764 \cdot 10^{-15}$ | 0 |

2.20 Deltaclu

| | interference | | | square | | |
|--|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $-1.102 \cdot 10^{-6}$ | $-1.102 \cdot 10^{-6}$ | $3.629 \cdot 10^{-7}$ | $6.897 \cdot 10^{-10}$ | $6.897 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | -0.01939 | -0.01939 | $4.127 \cdot 10^{-7}$ | 0.2429 | 0.2429 | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | -0.003713 | -0.003713 | $1.077 \cdot 10^{-7}$ | 0.01662 | 0.01662 | 0 |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $-2.365 \cdot 10^{-12}$ | $-2.365 \cdot 10^{-12}$ | $3.383 \cdot 10^{-7}$ | $4.226 \cdot 10^{-21}$ | $4.226 \cdot 10^{-21}$ | 0 |

2.21 Deltacuu

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.01003 | 0.01003 | $2.992 \cdot 10^{-7}$ | 0.07942 | 0.07942 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.3222 | -0.3222 | $3.104 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.545 \cdot 10^{-7}$ | $1.545 \cdot 10^{-7}$ | $3.883 \cdot 10^{-7}$ | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.357 \cdot 10^{-11}$ | $-1.357 \cdot 10^{-11}$ | $7.367 \cdot 10^{-8}$ | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |

2.22 Deltacuu1

| | interference | | | square | | |
|---------------------------------|--------------|---------|-------------------------------|---------|---------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.1483 | 0.1483 | 0 | 0.07942 | 0.07942 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.3222 | -0.3222 | $3.104 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---|
| $u\bar{u} \rightarrow c\bar{c}$ | $1.834 \cdot 10^{-6}$ | $1.834 \cdot 10^{-6}$ | 0 | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.357 \cdot 10^{-11}$ | $-1.357 \cdot 10^{-11}$ | $7.367 \cdot 10^{-8}$ | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |

2.23 DeltadcHq1

| | interference | | | square | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z\bar{b}b$ | $2.935 \cdot 10^{-10}$ | $2.935 \cdot 10^{-10}$ | $-6.814 \cdot 10^{-8}$ | $2.087 \cdot 10^{-13}$ | $2.087 \cdot 10^{-13}$ | 0 |
| $HH \rightarrow zc\bar{c}$ | $-1.384 \cdot 10^{-13}$ | $-1.384 \cdot 10^{-13}$ | $-1.446 \cdot 10^{-7}$ | $2.657 \cdot 10^{-20}$ | $2.657 \cdot 10^{-20}$ | 0 |
| $HH \rightarrow zd\bar{d}$ | $1.153 \cdot 10^{-15}$ | $1.153 \cdot 10^{-15}$ | $-8.673 \cdot 10^{-8}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| $HH \rightarrow zt\bar{t}$ | $7.143 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | $4.2 \cdot 10^{-8}$ | $1.937 \cdot 10^{-11}$ | $1.937 \cdot 10^{-11}$ | 0 |
| $H z \rightarrow b\bar{b}$ | 0.000136 | 0.000136 | $-7.354 \cdot 10^{-8}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| $H z \rightarrow s\bar{s}$ | $6.156 \cdot 10^{-8}$ | $6.156 \cdot 10^{-8}$ | $-6.498 \cdot 10^{-8}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |
| $H z \rightarrow t\bar{t}$ | 0.001205 | 0.001205 | 0 | $4.643 \cdot 10^{-7}$ | $4.643 \cdot 10^{-7}$ | 0 |
| $H z \rightarrow u\bar{u}$ | $-1.235 \cdot 10^{-10}$ | $-1.235 \cdot 10^{-10}$ | $-1.62 \cdot 10^{-7}$ | $4.703 \cdot 10^{-19}$ | $4.703 \cdot 10^{-19}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $8.635 \cdot 10^{-10}$ | $8.635 \cdot 10^{-10}$ | $-1.042 \cdot 10^{-7}$ | $6.961 \cdot 10^{-14}$ | $6.961 \cdot 10^{-14}$ | $-1.006 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $-2.657 \cdot 10^{-13}$ | $-2.657 \cdot 10^{-13}$ | $-2.258 \cdot 10^{-7}$ | $1.167 \cdot 10^{-20}$ | $1.167 \cdot 10^{-20}$ | $-1.714 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $2.6 \cdot 10^{-17}$ | $2.6 \cdot 10^{-17}$ | $3.846 \cdot 10^{-8}$ | $5.682 \cdot 10^{-26}$ | $5.682 \cdot 10^{-26}$ | $-7.04 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Ht\bar{t}$ | $6.105 \cdot 10^{-10}$ | $6.105 \cdot 10^{-10}$ | $-1.638 \cdot 10^{-7}$ | $2.85 \cdot 10^{-12}$ | $2.85 \cdot 10^{-12}$ | 0 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $4.331 \cdot 10^{-8}$ | $4.331 \cdot 10^{-8}$ | $-2.078 \cdot 10^{-7}$ | $9.622 \cdot 10^{-13}$ | $9.622 \cdot 10^{-13}$ | $8.314 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | $1.849 \cdot 10^{-9}$ | $1.849 \cdot 10^{-9}$ | $-1.082 \cdot 10^{-7}$ | $3.829 \cdot 10^{-14}$ | $3.829 \cdot 10^{-14}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | $-1.059 \cdot 10^{-5}$ | $-1.059 \cdot 10^{-5}$ | $-9.442 \cdot 10^{-8}$ | $7.75 \cdot 10^{-11}$ | $7.75 \cdot 10^{-11}$ | $-7.742 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $4.934 \cdot 10^{-8}$ | $4.934 \cdot 10^{-8}$ | $-4.053 \cdot 10^{-8}$ | $1.141 \cdot 10^{-12}$ | $1.141 \cdot 10^{-12}$ | $1.753 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $-4.11 \cdot 10^{-7}$ | $-4.11 \cdot 10^{-7}$ | $2.92 \cdot 10^{-7}$ | $6.934 \cdot 10^{-13}$ | $6.934 \cdot 10^{-13}$ | $7.066 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $5.933 \cdot 10^{-8}$ | $5.933 \cdot 10^{-8}$ | $1.517 \cdot 10^{-7}$ | $1.913 \cdot 10^{-12}$ | $1.913 \cdot 10^{-12}$ | $4.182 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-1.4 \cdot 10^{-11}$ | $-1.4 \cdot 10^{-11}$ | $-7.855 \cdot 10^{-7}$ | $2.354 \cdot 10^{-19}$ | $2.354 \cdot 10^{-19}$ | $1.274 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.709 \cdot 10^{-10}$ | $-1.709 \cdot 10^{-10}$ | $-1.756 \cdot 10^{-7}$ | $1.709 \cdot 10^{-18}$ | $1.709 \cdot 10^{-18}$ | $-1.171 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $1.366 \cdot 10^{-13}$ | $1.366 \cdot 10^{-13}$ | $-5.125 \cdot 10^{-7}$ | $2.379 \cdot 10^{-24}$ | $2.379 \cdot 10^{-24}$ | $-5.885 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $2.553 \cdot 10^{-11}$ | $2.553 \cdot 10^{-11}$ | $-7.834 \cdot 10^{-8}$ | $2.894 \cdot 10^{-19}$ | $2.894 \cdot 10^{-19}$ | $1.037 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $2.608 \cdot 10^{-11}$ | $2.608 \cdot 10^{-11}$ | $-3.835 \cdot 10^{-8}$ | $2.671 \cdot 10^{-19}$ | $2.671 \cdot 10^{-19}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $1.091 \cdot 10^{-5}$ | $1.091 \cdot 10^{-5}$ | 0 | $1.859 \cdot 10^{-13}$ | $1.859 \cdot 10^{-13}$ | $-1.076 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $-3.136 \cdot 10^{-8}$ | $-3.136 \cdot 10^{-8}$ | $-2.232 \cdot 10^{-7}$ | $9.009 \cdot 10^{-13}$ | $9.009 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $-7.806 \cdot 10^{-8}$ | $-7.806 \cdot 10^{-8}$ | $-4.74 \cdot 10^{-7}$ | $1.186 \cdot 10^{-12}$ | $1.186 \cdot 10^{-12}$ | $-3.372 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | $-3.484 \cdot 10^{-8}$ | $-3.484 \cdot 10^{-8}$ | $-1.004 \cdot 10^{-6}$ | $2.177 \cdot 10^{-12}$ | $2.177 \cdot 10^{-12}$ | $2.756 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $-1.301 \cdot 10^{-8}$ | $-1.301 \cdot 10^{-8}$ | $-9.221 \cdot 10^{-7}$ | $9.235 \cdot 10^{-13}$ | $9.235 \cdot 10^{-13}$ | $2.49 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $-5.21 \cdot 10^{-8}$ | $-5.21 \cdot 10^{-8}$ | $-3.455 \cdot 10^{-7}$ | $1.579 \cdot 10^{-12}$ | $1.579 \cdot 10^{-12}$ | $6.335 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | $3.174 \cdot 10^{-5}$ | $3.174 \cdot 10^{-5}$ | $-3.151 \cdot 10^{-8}$ | $2.868 \cdot 10^{-9}$ | $2.868 \cdot 10^{-9}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-4.279 \cdot 10^{-13}$ | $-4.279 \cdot 10^{-13}$ | $-4.674 \cdot 10^{-7}$ | $4.581 \cdot 10^{-23}$ | $4.581 \cdot 10^{-23}$ | $6.985 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $-3.136 \cdot 10^{-13}$ | $-3.136 \cdot 10^{-13}$ | $-1.595 \cdot 10^{-7}$ | $9.931 \cdot 10^{-24}$ | $9.931 \cdot 10^{-24}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $5.586 \cdot 10^{-12}$ | $5.586 \cdot 10^{-12}$ | $2.309 \cdot 10^{-6}$ | $4.616 \cdot 10^{-19}$ | $4.616 \cdot 10^{-19}$ | $5.633 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $2.322 \cdot 10^{-12}$ | $2.322 \cdot 10^{-12}$ | $-4.307 \cdot 10^{-8}$ | $2.714 \cdot 10^{-23}$ | $2.714 \cdot 10^{-23}$ | $2.948 \cdot 10^{-7}$ |

2.24 DeltadcHq3

| | interference | | | square | | |
|------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow W^+ \bar{t}b$ | $-8.044 \cdot 10^{-10}$ | $-8.044 \cdot 10^{-10}$ | $4.351 \cdot 10^{-7}$ | $1.398 \cdot 10^{-12}$ | $1.398 \cdot 10^{-12}$ | 0 |
| $HH \rightarrow W^- u\bar{d}$ | $1.337 \cdot 10^{-15}$ | $1.337 \cdot 10^{-15}$ | $-2.243 \cdot 10^{-7}$ | $1.095 \cdot 10^{-24}$ | $1.095 \cdot 10^{-24}$ | $-9.131 \cdot 10^{-8}$ |
| $HH \rightarrow z\bar{b}b$ | $2.935 \cdot 10^{-10}$ | $2.935 \cdot 10^{-10}$ | $-6.814 \cdot 10^{-8}$ | $2.087 \cdot 10^{-13}$ | $2.087 \cdot 10^{-13}$ | 0 |
| $HH \rightarrow zc\bar{c}$ | $1.384 \cdot 10^{-13}$ | $1.384 \cdot 10^{-13}$ | $-1.446 \cdot 10^{-7}$ | $2.657 \cdot 10^{-20}$ | $2.657 \cdot 10^{-20}$ | 0 |
| $HH \rightarrow zd\bar{d}$ | $1.153 \cdot 10^{-15}$ | $1.153 \cdot 10^{-15}$ | $-8.673 \cdot 10^{-8}$ | $1.227 \cdot 10^{-24}$ | $1.227 \cdot 10^{-24}$ | 0 |
| $HH \rightarrow zt\bar{t}$ | $-7.143 \cdot 10^{-8}$ | $-7.143 \cdot 10^{-8}$ | $4.2 \cdot 10^{-8}$ | $1.937 \cdot 10^{-11}$ | $1.937 \cdot 10^{-11}$ | 0 |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-2.186 \cdot 10^{-10}$ | $-2.186 \cdot 10^{-10}$ | $2.745 \cdot 10^{-7}$ | $5.807 \cdot 10^{-14}$ | $5.807 \cdot 10^{-14}$ | $2.239 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $1.938 \cdot 10^{-14}$ | $1.938 \cdot 10^{-14}$ | $2.064 \cdot 10^{-7}$ | $2.937 \cdot 10^{-23}$ | $2.937 \cdot 10^{-23}$ | $2.724 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $2.327 \cdot 10^{-10}$ | $2.327 \cdot 10^{-10}$ | $-1.289 \cdot 10^{-7}$ | $7.962 \cdot 10^{-19}$ | $7.962 \cdot 10^{-19}$ | $-1.256 \cdot 10^{-8}$ |
| $HW^- \rightarrow \bar{t}b$ | -0.001418 | -0.001418 | 0 | $2.838 \cdot 10^{-7}$ | $2.838 \cdot 10^{-7}$ | 0 |
| $H z \rightarrow b\bar{b}$ | 0.000136 | 0.000136 | $-7.354 \cdot 10^{-8}$ | $3.401 \cdot 10^{-7}$ | $3.401 \cdot 10^{-7}$ | 0 |
| $H z \rightarrow s\bar{s}$ | $6.156 \cdot 10^{-8}$ | $6.156 \cdot 10^{-8}$ | $-6.498 \cdot 10^{-8}$ | $7.583 \cdot 10^{-14}$ | $7.583 \cdot 10^{-14}$ | 0 |

| | | | | | | |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| $H z \rightarrow t\bar{t}$ | -0.001205 | -0.001205 | 0 | $4.643 \cdot 10^{-7}$ | $4.643 \cdot 10^{-7}$ | 0 |
| $H z \rightarrow u\bar{u}$ | $1.235 \cdot 10^{-10}$ | $1.235 \cdot 10^{-10}$ | $-1.62 \cdot 10^{-7}$ | $4.703 \cdot 10^{-19}$ | $4.703 \cdot 10^{-19}$ | 0 |
| $W^+ W^- \rightarrow H b\bar{b}$ | $-1.958 \cdot 10^{-9}$ | $-1.958 \cdot 10^{-9}$ | $-5.106 \cdot 10^{-8}$ | $4.082 \cdot 10^{-13}$ | $4.082 \cdot 10^{-13}$ | $-9.8 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H c\bar{c}$ | $2.385 \cdot 10^{-13}$ | $2.385 \cdot 10^{-13}$ | $-2.935 \cdot 10^{-7}$ | $9.656 \cdot 10^{-20}$ | $9.656 \cdot 10^{-20}$ | $-1.139 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H d\bar{d}$ | $2.991 \cdot 10^{-16}$ | $2.991 \cdot 10^{-16}$ | $-3.009 \cdot 10^{-7}$ | $7.151 \cdot 10^{-25}$ | $7.151 \cdot 10^{-25}$ | $-1.119 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H t\bar{t}$ | $8.379 \cdot 10^{-9}$ | $8.379 \cdot 10^{-9}$ | $-5.967 \cdot 10^{-8}$ | $5.899 \cdot 10^{-12}$ | $5.899 \cdot 10^{-12}$ | 0 |
| $\bar{b}t \rightarrow \bar{d}u$ | $1.373 \cdot 10^{-6}$ | $1.373 \cdot 10^{-6}$ | $-2.185 \cdot 10^{-7}$ | $2.399 \cdot 10^{-11}$ | $2.399 \cdot 10^{-11}$ | $-2.084 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | $4.331 \cdot 10^{-8}$ | $4.331 \cdot 10^{-8}$ | $-2.078 \cdot 10^{-7}$ | $9.622 \cdot 10^{-13}$ | $9.622 \cdot 10^{-13}$ | $8.314 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $1.849 \cdot 10^{-9}$ | $1.849 \cdot 10^{-9}$ | $-1.082 \cdot 10^{-7}$ | $3.829 \cdot 10^{-14}$ | $3.829 \cdot 10^{-14}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | $-1.059 \cdot 10^{-5}$ | $-1.059 \cdot 10^{-5}$ | $-9.442 \cdot 10^{-8}$ | $7.75 \cdot 10^{-11}$ | $7.75 \cdot 10^{-11}$ | $-7.742 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $4.934 \cdot 10^{-8}$ | $4.934 \cdot 10^{-8}$ | $-4.053 \cdot 10^{-8}$ | $1.141 \cdot 10^{-12}$ | $1.141 \cdot 10^{-12}$ | $1.753 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $2.225 \cdot 10^{-5}$ | $2.225 \cdot 10^{-5}$ | $-1.348 \cdot 10^{-7}$ | $2.34 \cdot 10^{-9}$ | $2.34 \cdot 10^{-9}$ | $-4.274 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $5.933 \cdot 10^{-8}$ | $5.933 \cdot 10^{-8}$ | $1.517 \cdot 10^{-7}$ | $1.913 \cdot 10^{-12}$ | $1.913 \cdot 10^{-12}$ | $4.182 \cdot 10^{-7}$ |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $7.51 \cdot 10^{-7}$ | $7.51 \cdot 10^{-7}$ | $-2.13 \cdot 10^{-7}$ | $1.312 \cdot 10^{-11}$ | $1.312 \cdot 10^{-11}$ | $-2.286 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $1.4 \cdot 10^{-11}$ | $1.4 \cdot 10^{-11}$ | $-7.855 \cdot 10^{-7}$ | $2.354 \cdot 10^{-19}$ | $2.354 \cdot 10^{-19}$ | $1.274 \cdot 10^{-7}$ |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $1.565 \cdot 10^{-10}$ | $1.565 \cdot 10^{-10}$ | $-2.555 \cdot 10^{-7}$ | $1.354 \cdot 10^{-18}$ | $1.354 \cdot 10^{-18}$ | $-2.216 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $1.716 \cdot 10^{-10}$ | $1.716 \cdot 10^{-10}$ | $-2.331 \cdot 10^{-7}$ | $1.723 \cdot 10^{-18}$ | $1.723 \cdot 10^{-18}$ | $-1.161 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+ e^-$ | $1.366 \cdot 10^{-13}$ | $1.366 \cdot 10^{-13}$ | $-5.125 \cdot 10^{-7}$ | $2.379 \cdot 10^{-24}$ | $2.379 \cdot 10^{-24}$ | $-5.885 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $2.553 \cdot 10^{-11}$ | $2.553 \cdot 10^{-11}$ | $-7.834 \cdot 10^{-8}$ | $2.894 \cdot 10^{-19}$ | $2.894 \cdot 10^{-19}$ | $1.037 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $2.608 \cdot 10^{-11}$ | $2.608 \cdot 10^{-11}$ | $-3.835 \cdot 10^{-8}$ | $2.671 \cdot 10^{-19}$ | $2.671 \cdot 10^{-19}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $1.091 \cdot 10^{-5}$ | $1.091 \cdot 10^{-5}$ | 0 | $1.859 \cdot 10^{-13}$ | $1.859 \cdot 10^{-13}$ | $-1.076 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $3.136 \cdot 10^{-8}$ | $3.136 \cdot 10^{-8}$ | $-2.232 \cdot 10^{-7}$ | $9.009 \cdot 10^{-13}$ | $9.009 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $7.806 \cdot 10^{-8}$ | $7.806 \cdot 10^{-8}$ | $-4.74 \cdot 10^{-7}$ | $1.186 \cdot 10^{-12}$ | $1.186 \cdot 10^{-12}$ | $-3.372 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | $3.484 \cdot 10^{-8}$ | $3.484 \cdot 10^{-8}$ | $-1.004 \cdot 10^{-6}$ | $2.177 \cdot 10^{-12}$ | $2.177 \cdot 10^{-12}$ | $2.756 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $1.301 \cdot 10^{-8}$ | $1.301 \cdot 10^{-8}$ | $-9.989 \cdot 10^{-7}$ | $9.235 \cdot 10^{-13}$ | $9.235 \cdot 10^{-13}$ | $2.49 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $5.216 \cdot 10^{-8}$ | $5.216 \cdot 10^{-8}$ | $-3.451 \cdot 10^{-7}$ | $1.58 \cdot 10^{-12}$ | $1.58 \cdot 10^{-12}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | $-3.174 \cdot 10^{-5}$ | $-3.174 \cdot 10^{-5}$ | $-3.151 \cdot 10^{-8}$ | $2.868 \cdot 10^{-9}$ | $2.868 \cdot 10^{-9}$ | 0 |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $1.434 \cdot 10^{-13}$ | $1.434 \cdot 10^{-13}$ | $-2.092 \cdot 10^{-7}$ | $3.127 \cdot 10^{-24}$ | $3.127 \cdot 10^{-24}$ | $-2.238 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $8.119 \cdot 10^{-10}$ | $8.119 \cdot 10^{-10}$ | $-2.217 \cdot 10^{-7}$ | $7.04 \cdot 10^{-18}$ | $7.04 \cdot 10^{-18}$ | $-2.273 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|-----------------------|
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.024 \cdot 10^{-11}$ | $-2.024 \cdot 10^{-11}$ | $-4.942 \cdot 10^{-8}$ | $7.498 \cdot 10^{-22}$ | $7.498 \cdot 10^{-22}$ | $-1.6 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $3.136 \cdot 10^{-13}$ | $3.136 \cdot 10^{-13}$ | $-1.595 \cdot 10^{-7}$ | $9.931 \cdot 10^{-24}$ | $9.931 \cdot 10^{-24}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-5.586 \cdot 10^{-12}$ | $-5.586 \cdot 10^{-12}$ | $2.309 \cdot 10^{-6}$ | $4.616 \cdot 10^{-19}$ | $4.616 \cdot 10^{-19}$ | $5.633 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $-2.322 \cdot 10^{-12}$ | $-2.322 \cdot 10^{-12}$ | $-4.307 \cdot 10^{-8}$ | $2.714 \cdot 10^{-23}$ | $2.714 \cdot 10^{-23}$ | $2.948 \cdot 10^{-7}$ |

2.25 DeltadcdB

| | interference | | | square | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z\bar{b}b$ | $1.21 \cdot 10^{-12}$ | $1.21 \cdot 10^{-12}$ | 0 | $6.496 \cdot 10^{-17}$ | $6.496 \cdot 10^{-17}$ | $3.54 \cdot 10^{-7}$ |
| $HH \rightarrow z\bar{d}\bar{d}$ | $-5.92 \cdot 10^{-25}$ | $-5.92 \cdot 10^{-25}$ | $1.689 \cdot 10^{-8}$ | $3.811 \cdot 10^{-35}$ | $3.811 \cdot 10^{-35}$ | $3.412 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-1.094 \cdot 10^{-12}$ | $-1.094 \cdot 10^{-12}$ | 0 | $6.983 \cdot 10^{-16}$ | $6.983 \cdot 10^{-16}$ | $-1.146 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $-1.024 \cdot 10^{-24}$ | $-1.024 \cdot 10^{-24}$ | 0 | $7.709 \cdot 10^{-35}$ | $7.709 \cdot 10^{-35}$ | $-2.205 \cdot 10^{-7}$ |
| $H\gamma \rightarrow b\bar{b}$ | $-2.85 \cdot 10^{-11}$ | $-2.85 \cdot 10^{-11}$ | $3.509 \cdot 10^{-8}$ | $3.938 \cdot 10^{-10}$ | $3.938 \cdot 10^{-10}$ | $-1.016 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d\bar{d}$ | $-1.299 \cdot 10^{-28}$ | $-1.299 \cdot 10^{-28}$ | $7.701 \cdot 10^{-8}$ | $3.27 \cdot 10^{-28}$ | $3.27 \cdot 10^{-28}$ | $-9.174 \cdot 10^{-8}$ |
| $H\gamma \rightarrow b\bar{b}$ | $-9.705 \cdot 10^{-9}$ | $-9.705 \cdot 10^{-9}$ | $2.061 \cdot 10^{-8}$ | $9.004 \cdot 10^{-11}$ | $9.004 \cdot 10^{-11}$ | $3.554 \cdot 10^{-7}$ |
| $H\gamma \rightarrow s\bar{s}$ | $-2.381 \cdot 10^{-15}$ | $-2.381 \cdot 10^{-15}$ | 0 | $9.883 \cdot 10^{-21}$ | $9.883 \cdot 10^{-21}$ | $3.541 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hb\bar{b}$ | $7.217 \cdot 10^{-14}$ | $7.217 \cdot 10^{-14}$ | $1.247 \cdot 10^{-7}$ | $4.447 \cdot 10^{-19}$ | $4.447 \cdot 10^{-19}$ | $2.923 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $6.559 \cdot 10^{-26}$ | $6.559 \cdot 10^{-26}$ | $7.624 \cdot 10^{-8}$ | $3.026 \cdot 10^{-36}$ | $3.026 \cdot 10^{-36}$ | $3.635 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \gamma\gamma$ | $2.641 \cdot 10^{-10}$ | $2.641 \cdot 10^{-10}$ | $3.029 \cdot 10^{-7}$ | $3.885 \cdot 10^{-13}$ | $3.885 \cdot 10^{-13}$ | $1.545 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $3.336 \cdot 10^{-10}$ | $3.336 \cdot 10^{-10}$ | $2.098 \cdot 10^{-7}$ | $6.154 \cdot 10^{-13}$ | $6.154 \cdot 10^{-13}$ | $3.575 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $5.738 \cdot 10^{-11}$ | $5.738 \cdot 10^{-11}$ | $8.191 \cdot 10^{-7}$ | $3.289 \cdot 10^{-14}$ | $3.289 \cdot 10^{-14}$ | $3.648 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow b\bar{b}$ | $1.467 \cdot 10^{-9}$ | $1.467 \cdot 10^{-9}$ | 0 | $2.804 \cdot 10^{-12}$ | $2.804 \cdot 10^{-12}$ | $3.567 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $-1.143 \cdot 10^{-10}$ | $-1.143 \cdot 10^{-10}$ | $8.752 \cdot 10^{-8}$ | $1.428 \cdot 10^{-13}$ | $1.428 \cdot 10^{-13}$ | $4.201 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $1.156 \cdot 10^{-9}$ | $1.156 \cdot 10^{-9}$ | $1.73 \cdot 10^{-7}$ | $6.403 \cdot 10^{-13}$ | $6.403 \cdot 10^{-13}$ | $3.592 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $3.311 \cdot 10^{-11}$ | $3.311 \cdot 10^{-11}$ | $-9.966 \cdot 10^{-7}$ | $4.815 \cdot 10^{-13}$ | $4.815 \cdot 10^{-13}$ | $3.531 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $9.011 \cdot 10^{-22}$ | $9.011 \cdot 10^{-22}$ | $2.774 \cdot 10^{-7}$ | $1.253 \cdot 10^{-30}$ | $1.253 \cdot 10^{-30}$ | $3.192 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $1.069 \cdot 10^{-21}$ | $1.069 \cdot 10^{-21}$ | $2.805 \cdot 10^{-7}$ | $7.279 \cdot 10^{-31}$ | $7.279 \cdot 10^{-31}$ | $3.572 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $-2.85 \cdot 10^{-17}$ | $-2.85 \cdot 10^{-17}$ | $7.018 \cdot 10^{-8}$ | $1.763 \cdot 10^{-23}$ | $1.763 \cdot 10^{-23}$ | $3.97 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-3.589 \cdot 10^{-17}$ | $-3.589 \cdot 10^{-17}$ | $-8.359 \cdot 10^{-8}$ | $1.432 \cdot 10^{-23}$ | $1.432 \cdot 10^{-23}$ | $3.491 \cdot 10^{-7}$ |

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|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|-----------------------|
| $s\bar{s} \rightarrow s\bar{s}$ | $-2.29 \cdot 10^{-12}$ | $-2.29 \cdot 10^{-12}$ | $1.747 \cdot 10^{-7}$ | $1.614 \cdot 10^{-19}$ | $1.614 \cdot 10^{-19}$ | $1.239 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $6.439 \cdot 10^{-21}$ | $6.439 \cdot 10^{-21}$ | $1.708 \cdot 10^{-7}$ | $7.748 \cdot 10^{-31}$ | $7.748 \cdot 10^{-31}$ | $3.614 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $7.517 \cdot 10^{-16}$ | $7.517 \cdot 10^{-16}$ | $1.729 \cdot 10^{-7}$ | $6.809 \cdot 10^{-23}$ | $6.809 \cdot 10^{-23}$ | $3.525 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-5.019 \cdot 10^{-21}$ | $-5.019 \cdot 10^{-21}$ | $3.188 \cdot 10^{-7}$ | $1.19 \cdot 10^{-29}$ | $1.19 \cdot 10^{-29}$ | $3.361 \cdot 10^{-7}$ |

2.26 DeltadcdG

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $b\bar{b} \rightarrow b\bar{b}$ | $-8.989 \cdot 10^{-7}$ | $-8.989 \cdot 10^{-7}$ | 0 | $7.802 \cdot 10^{-10}$ | $7.802 \cdot 10^{-10}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $-6.458 \cdot 10^{-8}$ | $-6.458 \cdot 10^{-8}$ | 0 | $5.797 \cdot 10^{-12}$ | $5.797 \cdot 10^{-12}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-5.198 \cdot 10^{-8}$ | $-5.198 \cdot 10^{-8}$ | $3.847 \cdot 10^{-8}$ | $7.391 \cdot 10^{-12}$ | $7.391 \cdot 10^{-12}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-6.458 \cdot 10^{-8}$ | $-6.458 \cdot 10^{-8}$ | 0 | $7.459 \cdot 10^{-12}$ | $7.459 \cdot 10^{-12}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.006 \cdot 10^{-19}$ | $-1.006 \cdot 10^{-19}$ | 0 | $4.814 \cdot 10^{-30}$ | $4.814 \cdot 10^{-30}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-1.582 \cdot 10^{-14}$ | $-1.582 \cdot 10^{-14}$ | 0 | $8.715 \cdot 10^{-22}$ | $8.715 \cdot 10^{-22}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-7.167 \cdot 10^{-14}$ | $-7.167 \cdot 10^{-14}$ | 0 | $1.392 \cdot 10^{-20}$ | $1.392 \cdot 10^{-20}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-1.127 \cdot 10^{-19}$ | $-1.127 \cdot 10^{-19}$ | 0 | $1.126 \cdot 10^{-29}$ | $1.126 \cdot 10^{-29}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-1.773 \cdot 10^{-14}$ | $-1.773 \cdot 10^{-14}$ | 0 | $9.831 \cdot 10^{-22}$ | $9.831 \cdot 10^{-22}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.096 \cdot 10^{-19}$ | $-1.096 \cdot 10^{-19}$ | 0 | $9.84 \cdot 10^{-29}$ | $9.84 \cdot 10^{-29}$ | 0 |

2.27 DeltadcdH

| | interference | | | square | | |
|------------------------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $HH \rightarrow Hb\bar{b}$ | $-2.131 \cdot 10^{-12}$ | $-2.131 \cdot 10^{-12}$ | 0 | $8.641 \cdot 10^{-16}$ | $8.641 \cdot 10^{-16}$ | 0 |
| $HH \rightarrow Hs\bar{s}$ | $-4.66 \cdot 10^{-19}$ | $-4.66 \cdot 10^{-19}$ | 0 | $1.301 \cdot 10^{-25}$ | $1.301 \cdot 10^{-25}$ | 0 |
| $HH \rightarrow W^+t\bar{b}$ | $-2.501 \cdot 10^{-11}$ | $-2.501 \cdot 10^{-11}$ | $-3.999 \cdot 10^{-8}$ | $1.72 \cdot 10^{-15}$ | $1.72 \cdot 10^{-15}$ | $-1.163 \cdot 10^{-7}$ |
| $HH \rightarrow W^-u\bar{d}$ | $-1.237 \cdot 10^{-24}$ | $-1.237 \cdot 10^{-24}$ | $8.083 \cdot 10^{-8}$ | $6.486 \cdot 10^{-34}$ | $6.486 \cdot 10^{-34}$ | $-6.167 \cdot 10^{-8}$ |
| $HH \rightarrow z\bar{b}b$ | $-4.135 \cdot 10^{-13}$ | $-4.135 \cdot 10^{-13}$ | $-3.627 \cdot 10^{-7}$ | $2.271 \cdot 10^{-16}$ | $2.271 \cdot 10^{-16}$ | $-1.321 \cdot 10^{-7}$ |

| | | | | | | |
|-------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $HH \rightarrow z d \bar{d}$ | $-8.525 \cdot 10^{-25}$ | $-8.525 \cdot 10^{-25}$ | $-2.581 \cdot 10^{-7}$ | $1.398 \cdot 10^{-33}$ | $1.398 \cdot 10^{-33}$ | $-7.152 \cdot 10^{-8}$ |
| $HW^+ \rightarrow \gamma t \bar{b}$ | $-1.006 \cdot 10^{-14}$ | $-1.006 \cdot 10^{-14}$ | $1.989 \cdot 10^{-7}$ | $8.453 \cdot 10^{-19}$ | $8.453 \cdot 10^{-19}$ | $2.366 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u \bar{d}$ | $9.008 \cdot 10^{-26}$ | $9.008 \cdot 10^{-26}$ | $2.553 \cdot 10^{-7}$ | $1.434 \cdot 10^{-35}$ | $1.434 \cdot 10^{-35}$ | $2.092 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u \bar{d}$ | $-5.292 \cdot 10^{-21}$ | $-5.292 \cdot 10^{-21}$ | $-1.134 \cdot 10^{-7}$ | $2.281 \cdot 10^{-29}$ | $2.281 \cdot 10^{-29}$ | 0 |
| $HW^- \rightarrow \bar{t} b$ | $3.462 \cdot 10^{-8}$ | $3.462 \cdot 10^{-8}$ | 0 | $1.209 \cdot 10^{-11}$ | $1.209 \cdot 10^{-11}$ | 0 |
| $H\gamma \rightarrow b \bar{b}$ | $-3.661 \cdot 10^{-8}$ | $-3.661 \cdot 10^{-8}$ | $2.458 \cdot 10^{-7}$ | $6.397 \cdot 10^{-13}$ | $6.397 \cdot 10^{-13}$ | $2.501 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d \bar{d}$ | $-8.252 \cdot 10^{-21}$ | $-8.252 \cdot 10^{-21}$ | $2.545 \cdot 10^{-7}$ | $1.8 \cdot 10^{-31}$ | $1.8 \cdot 10^{-31}$ | $2.778 \cdot 10^{-7}$ |
| $H z \rightarrow b \bar{b}$ | $-2.286 \cdot 10^{-9}$ | $-2.286 \cdot 10^{-9}$ | $-8.313 \cdot 10^{-7}$ | $1.175 \cdot 10^{-11}$ | $1.175 \cdot 10^{-11}$ | 0 |
| $H z \rightarrow s \bar{s}$ | $-2.124 \cdot 10^{-14}$ | $-2.124 \cdot 10^{-14}$ | $-9.415 \cdot 10^{-8}$ | $1.607 \cdot 10^{-21}$ | $1.607 \cdot 10^{-21}$ | 0 |
| $W^+ W^- \rightarrow H b \bar{b}$ | $3.14 \cdot 10^{-13}$ | $3.14 \cdot 10^{-13}$ | $-2.867 \cdot 10^{-7}$ | $6.287 \cdot 10^{-17}$ | $6.287 \cdot 10^{-17}$ | 0 |
| $W^+ W^- \rightarrow H c \bar{c}$ | $3.531 \cdot 10^{-20}$ | $3.531 \cdot 10^{-20}$ | $-1.133 \cdot 10^{-7}$ | $5.032 \cdot 10^{-34}$ | $5.032 \cdot 10^{-34}$ | $-1.987 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H d \bar{d}$ | $-5.984 \cdot 10^{-26}$ | $-5.984 \cdot 10^{-26}$ | $-1.337 \cdot 10^{-7}$ | $2.418 \cdot 10^{-35}$ | $2.418 \cdot 10^{-35}$ | $4.135 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | $5.241 \cdot 10^{-14}$ | $5.241 \cdot 10^{-14}$ | $-1.145 \cdot 10^{-7}$ | $2.09 \cdot 10^{-21}$ | $2.09 \cdot 10^{-21}$ | $-4.784 \cdot 10^{-8}$ |
| $b \bar{b} \rightarrow \mu^+ \mu^-$ | $-1.275 \cdot 10^{-15}$ | $-1.275 \cdot 10^{-15}$ | 0 | $2.23 \cdot 10^{-20}$ | $2.23 \cdot 10^{-20}$ | 0 |
| $b \bar{b} \rightarrow b \bar{b}$ | $3.861 \cdot 10^{-7}$ | $3.861 \cdot 10^{-7}$ | 0 | $8.022 \cdot 10^{-16}$ | $8.022 \cdot 10^{-16}$ | 0 |
| $b \bar{b} \rightarrow d \bar{d}$ | $-7.502 \cdot 10^{-18}$ | $-7.502 \cdot 10^{-18}$ | 0 | $1.307 \cdot 10^{-22}$ | $1.307 \cdot 10^{-22}$ | 0 |
| $b \bar{b} \rightarrow t \bar{t}$ | $-5.888 \cdot 10^{-9}$ | $-5.888 \cdot 10^{-9}$ | 0 | $1.575 \cdot 10^{-13}$ | $1.575 \cdot 10^{-13}$ | 0 |
| $b \bar{b} \rightarrow u \bar{u}$ | $-1.602 \cdot 10^{-18}$ | $-1.602 \cdot 10^{-18}$ | 0 | $2.795 \cdot 10^{-23}$ | $2.795 \cdot 10^{-23}$ | 0 |
| $d \bar{d} \rightarrow c \bar{c}$ | $-8.565 \cdot 10^{-25}$ | $-8.565 \cdot 10^{-25}$ | 0 | $1.879 \cdot 10^{-35}$ | $1.879 \cdot 10^{-35}$ | 0 |
| $d \bar{d} \rightarrow e^+ e^-$ | $-4.629 \cdot 10^{-32}$ | $-4.629 \cdot 10^{-32}$ | 0 | $1.014 \cdot 10^{-42}$ | $1.014 \cdot 10^{-42}$ | 0 |
| $d \bar{d} \rightarrow s \bar{s}$ | $-1.834 \cdot 10^{-24}$ | $-1.834 \cdot 10^{-24}$ | 0 | $1.593 \cdot 10^{-32}$ | $1.593 \cdot 10^{-32}$ | 0 |
| $s \bar{s} \rightarrow s \bar{s}$ | $2.246 \cdot 10^{-14}$ | $2.246 \cdot 10^{-14}$ | 0 | $5.516 \cdot 10^{-29}$ | $5.516 \cdot 10^{-29}$ | 0 |
| $t \bar{t} \rightarrow d \bar{d}$ | $-1.494 \cdot 10^{-20}$ | $-1.494 \cdot 10^{-20}$ | 0 | $3.273 \cdot 10^{-31}$ | $3.273 \cdot 10^{-31}$ | 0 |
| $t \bar{t} \rightarrow s \bar{s}$ | $-2.361 \cdot 10^{-15}$ | $-2.361 \cdot 10^{-15}$ | 0 | $2.041 \cdot 10^{-23}$ | $2.041 \cdot 10^{-23}$ | 0 |
| $u \bar{d} \rightarrow u \bar{d}$ | $-1.209 \cdot 10^{-30}$ | $-1.209 \cdot 10^{-30}$ | 0 | $4.855 \cdot 10^{-41}$ | $4.855 \cdot 10^{-41}$ | 0 |

2.28 DeltadcdW

interference

square

| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $HH \rightarrow W^+ \bar{t}b$ | $5.901 \cdot 10^{-12}$ | $5.901 \cdot 10^{-12}$ | 0 | $3.36 \cdot 10^{-15}$ | $3.36 \cdot 10^{-15}$ | $-2.976 \cdot 10^{-8}$ |
| $HH \rightarrow W^- u \bar{d}$ | $-2.211 \cdot 10^{-23}$ | $-2.211 \cdot 10^{-23}$ | $-4.07 \cdot 10^{-7}$ | $3.617 \cdot 10^{-34}$ | $3.617 \cdot 10^{-34}$ | $-4.423 \cdot 10^{-7}$ |
| $HH \rightarrow z \bar{b}b$ | $1.474 \cdot 10^{-11}$ | $1.474 \cdot 10^{-11}$ | $-2.035 \cdot 10^{-7}$ | $1.297 \cdot 10^{-15}$ | $1.297 \cdot 10^{-15}$ | $-1.542 \cdot 10^{-7}$ |
| $HH \rightarrow z d \bar{d}$ | $-1.648 \cdot 10^{-24}$ | $-1.648 \cdot 10^{-24}$ | $-2.427 \cdot 10^{-7}$ | $6.776 \cdot 10^{-34}$ | $6.776 \cdot 10^{-34}$ | $-1.181 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t \bar{b}$ | $-5.918 \cdot 10^{-13}$ | $-5.918 \cdot 10^{-13}$ | $3.041 \cdot 10^{-7}$ | $1.698 \cdot 10^{-16}$ | $1.698 \cdot 10^{-16}$ | $2.945 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u \bar{d}$ | $1.825 \cdot 10^{-25}$ | $1.825 \cdot 10^{-25}$ | $2.191 \cdot 10^{-7}$ | $1.698 \cdot 10^{-34}$ | $1.698 \cdot 10^{-34}$ | $2.355 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u \bar{d}$ | $-2.825 \cdot 10^{-20}$ | $-2.825 \cdot 10^{-20}$ | $-1.77 \cdot 10^{-7}$ | $7.178 \cdot 10^{-28}$ | $7.178 \cdot 10^{-28}$ | 0 |
| $HW^- \rightarrow \bar{t}b$ | $1.264 \cdot 10^{-6}$ | $1.264 \cdot 10^{-6}$ | $-7.913 \cdot 10^{-8}$ | $4.834 \cdot 10^{-12}$ | $4.834 \cdot 10^{-12}$ | $-1.241 \cdot 10^{-7}$ |
| $H\gamma \rightarrow b \bar{b}$ | $4.872 \cdot 10^{-11}$ | $4.872 \cdot 10^{-11}$ | $3.079 \cdot 10^{-7}$ | $3.877 \cdot 10^{-11}$ | $3.877 \cdot 10^{-11}$ | $3.611 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d \bar{d}$ | $2.766 \cdot 10^{-29}$ | $2.766 \cdot 10^{-29}$ | $3.253 \cdot 10^{-7}$ | $2.53 \cdot 10^{-28}$ | $2.53 \cdot 10^{-28}$ | $3.558 \cdot 10^{-7}$ |
| $H z \rightarrow b \bar{b}$ | $-1.758 \cdot 10^{-8}$ | $-1.758 \cdot 10^{-8}$ | $-2.275 \cdot 10^{-7}$ | $2.828 \cdot 10^{-10}$ | $2.828 \cdot 10^{-10}$ | $-1.061 \cdot 10^{-7}$ |
| $H z \rightarrow s \bar{s}$ | $-4.313 \cdot 10^{-15}$ | $-4.313 \cdot 10^{-15}$ | $-2.087 \cdot 10^{-7}$ | $1.661 \cdot 10^{-20}$ | $1.661 \cdot 10^{-20}$ | $-6.022 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H b \bar{b}$ | $-4.869 \cdot 10^{-12}$ | $-4.869 \cdot 10^{-12}$ | $-2.259 \cdot 10^{-7}$ | $3.118 \cdot 10^{-16}$ | $3.118 \cdot 10^{-16}$ | $-1.283 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H c \bar{c}$ | $-1.298 \cdot 10^{-19}$ | $-1.298 \cdot 10^{-19}$ | $-1.541 \cdot 10^{-7}$ | $3.735 \cdot 10^{-32}$ | $3.735 \cdot 10^{-32}$ | 0 |
| $W^+ W^- \rightarrow H d \bar{d}$ | $-3.111 \cdot 10^{-24}$ | $-3.111 \cdot 10^{-24}$ | $-1.607 \cdot 10^{-7}$ | $9.827 \cdot 10^{-34}$ | $9.827 \cdot 10^{-34}$ | $-1.119 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | $-1.566 \cdot 10^{-12}$ | $-1.566 \cdot 10^{-12}$ | 0 | $6.626 \cdot 10^{-18}$ | $6.626 \cdot 10^{-18}$ | 0 |
| $\bar{b}t \rightarrow \bar{d}u$ | $-1.151 \cdot 10^{-9}$ | $-1.151 \cdot 10^{-9}$ | $-1.738 \cdot 10^{-7}$ | $1.673 \cdot 10^{-12}$ | $1.673 \cdot 10^{-12}$ | $-1.196 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow \gamma \gamma$ | $-5.927 \cdot 10^{-11}$ | $-5.927 \cdot 10^{-11}$ | $5.568 \cdot 10^{-7}$ | $1.184 \cdot 10^{-13}$ | $1.184 \cdot 10^{-13}$ | $5.913 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow \mu^+ \mu^-$ | $-6.678 \cdot 10^{-10}$ | $-6.678 \cdot 10^{-10}$ | $-1.797 \cdot 10^{-7}$ | $3.089 \cdot 10^{-13}$ | $3.089 \cdot 10^{-13}$ | $-9.712 \cdot 10^{-8}$ |
| $b \bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $-6.476 \cdot 10^{-10}$ | $-6.476 \cdot 10^{-10}$ | $-1.544 \cdot 10^{-7}$ | $3.547 \cdot 10^{-13}$ | $3.547 \cdot 10^{-13}$ | $-1.128 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow b \bar{b}$ | $-3.347 \cdot 10^{-8}$ | $-3.347 \cdot 10^{-8}$ | $-8.963 \cdot 10^{-8}$ | $5.76 \cdot 10^{-13}$ | $5.76 \cdot 10^{-13}$ | $-1.042 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow d \bar{d}$ | $-1.962 \cdot 10^{-9}$ | $-1.962 \cdot 10^{-9}$ | $-1.529 \cdot 10^{-7}$ | $1.038 \cdot 10^{-12}$ | $1.038 \cdot 10^{-12}$ | $-1.927 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow t \bar{t}$ | $-6.349 \cdot 10^{-8}$ | $-6.349 \cdot 10^{-8}$ | $-4.725 \cdot 10^{-8}$ | $1.542 \cdot 10^{-11}$ | $1.542 \cdot 10^{-11}$ | $-1.297 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow u \bar{u}$ | $-1.356 \cdot 10^{-9}$ | $-1.356 \cdot 10^{-9}$ | $-1.474 \cdot 10^{-7}$ | $1.23 \cdot 10^{-12}$ | $1.23 \cdot 10^{-12}$ | $-1.626 \cdot 10^{-7}$ |
| $b \bar{t} \rightarrow e^- \bar{\nu}_e$ | $-9.552 \cdot 10^{-10}$ | $-9.552 \cdot 10^{-10}$ | $-1.57 \cdot 10^{-7}$ | $8.488 \cdot 10^{-13}$ | $8.488 \cdot 10^{-13}$ | $-1.06 \cdot 10^{-7}$ |
| $c \bar{s} \rightarrow \tau^+ \nu_\tau$ | $-2.159 \cdot 10^{-16}$ | $-2.159 \cdot 10^{-16}$ | $-1.853 \cdot 10^{-7}$ | $9.972 \cdot 10^{-23}$ | $9.972 \cdot 10^{-23}$ | $-1.103 \cdot 10^{-7}$ |
| $d \bar{d} \rightarrow c \bar{c}$ | $-2.341 \cdot 10^{-21}$ | $-2.341 \cdot 10^{-21}$ | $-1.709 \cdot 10^{-7}$ | $2.394 \cdot 10^{-30}$ | $2.394 \cdot 10^{-30}$ | $-8.355 \cdot 10^{-8}$ |
| $d \bar{d} \rightarrow e^+ e^-$ | $-1.234 \cdot 10^{-21}$ | $-1.234 \cdot 10^{-21}$ | $-2.432 \cdot 10^{-7}$ | $1.752 \cdot 10^{-31}$ | $1.752 \cdot 10^{-31}$ | $-1.142 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $d\bar{d} \rightarrow s\bar{s}$ | $-5.967 \cdot 10^{-16}$ | $-5.967 \cdot 10^{-16}$ | $-1.508 \cdot 10^{-7}$ | $7.443 \cdot 10^{-23}$ | $7.443 \cdot 10^{-23}$ | $-1.209 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-9.497 \cdot 10^{-18}$ | $-9.497 \cdot 10^{-18}$ | $-1.801 \cdot 10^{-6}$ | $3.059 \cdot 10^{-23}$ | $3.059 \cdot 10^{-23}$ | $-9.806 \cdot 10^{-8}$ |
| $s\bar{s} \rightarrow s\bar{s}$ | $-6.783 \cdot 10^{-15}$ | $-6.783 \cdot 10^{-15}$ | $-5.897 \cdot 10^{-8}$ | $8.614 \cdot 10^{-22}$ | $8.614 \cdot 10^{-22}$ | $-1.045 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $-3.404 \cdot 10^{-21}$ | $-3.404 \cdot 10^{-21}$ | $-8.814 \cdot 10^{-8}$ | $2.361 \cdot 10^{-30}$ | $2.361 \cdot 10^{-30}$ | $-8.47 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $-5.564 \cdot 10^{-16}$ | $-5.564 \cdot 10^{-16}$ | $-1.078 \cdot 10^{-7}$ | $1.466 \cdot 10^{-22}$ | $1.466 \cdot 10^{-22}$ | $-1.364 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $-2.671 \cdot 10^{-21}$ | $-2.671 \cdot 10^{-21}$ | $-1.872 \cdot 10^{-7}$ | $4.477 \cdot 10^{-31}$ | $4.477 \cdot 10^{-31}$ | $-1.117 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $-1.297 \cdot 10^{-15}$ | $-1.297 \cdot 10^{-15}$ | $-1.542 \cdot 10^{-7}$ | $5.511 \cdot 10^{-23}$ | $5.511 \cdot 10^{-23}$ | $-1.27 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $5.234 \cdot 10^{-19}$ | $5.234 \cdot 10^{-19}$ | $-5.732 \cdot 10^{-8}$ | $5.368 \cdot 10^{-29}$ | $5.368 \cdot 10^{-29}$ | $-9.315 \cdot 10^{-8}$ |

2.29 Deltadcdledq

| | interference | | | square | | |
|--|-------------------------|-------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | $-4.11 \cdot 10^{-14}$ | $-4.11 \cdot 10^{-14}$ | 0 | $1.176 \cdot 10^{-17}$ | $1.176 \cdot 10^{-17}$ | 0 |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $-4.933 \cdot 10^{-19}$ | $-4.933 \cdot 10^{-19}$ | 0 | $1.375 \cdot 10^{-22}$ | $1.375 \cdot 10^{-22}$ | 0 |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $-1.414 \cdot 10^{-18}$ | $-1.414 \cdot 10^{-18}$ | 0 | $2.017 \cdot 10^{-25}$ | $2.017 \cdot 10^{-25}$ | 0 |
| $d\bar{d} \rightarrow e^+ e^-$ | $-1.502 \cdot 10^{-30}$ | $-1.502 \cdot 10^{-30}$ | 0 | $5.347 \cdot 10^{-40}$ | $5.347 \cdot 10^{-40}$ | 0 |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $-3.171 \cdot 10^{-26}$ | $-3.171 \cdot 10^{-26}$ | 0 | $1.143 \cdot 10^{-35}$ | $1.143 \cdot 10^{-35}$ | 0 |

2.30 Deltadclequ1

| | interference | | | square | | |
|--|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $8.113 \cdot 10^{-16}$ | $8.113 \cdot 10^{-16}$ | 0 | $2.349 \cdot 10^{-19}$ | $2.349 \cdot 10^{-19}$ | 0 |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $1.881 \cdot 10^{-18}$ | $1.881 \cdot 10^{-18}$ | 0 | $2.659 \cdot 10^{-25}$ | $2.659 \cdot 10^{-25}$ | 0 |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $2.634 \cdot 10^{-16}$ | $2.634 \cdot 10^{-16}$ | 0 | $3.761 \cdot 10^{-23}$ | $3.761 \cdot 10^{-23}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $1.953 \cdot 10^{-8}$ | $1.953 \cdot 10^{-8}$ | 0 | $5.685 \cdot 10^{-12}$ | $5.685 \cdot 10^{-12}$ | 0 |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $6.812 \cdot 10^{-27}$ | $6.812 \cdot 10^{-27}$ | 0 | $2.445 \cdot 10^{-36}$ | $2.445 \cdot 10^{-36}$ | 0 |

2.31 Deltadclequ3

| | interference | | | square | | |
|--|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $-2.165 \cdot 10^{-15}$ | $-2.165 \cdot 10^{-15}$ | 0 | $1.86 \cdot 10^{-18}$ | $1.86 \cdot 10^{-18}$ | 0 |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $1.105 \cdot 10^{-18}$ | $1.105 \cdot 10^{-18}$ | 0 | $6.561 \cdot 10^{-26}$ | $6.561 \cdot 10^{-26}$ | 0 |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $-8.507 \cdot 10^{-17}$ | $-8.507 \cdot 10^{-17}$ | $2.351 \cdot 10^{-8}$ | $6.168 \cdot 10^{-24}$ | $6.168 \cdot 10^{-24}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $-1.93 \cdot 10^{-8}$ | $-1.93 \cdot 10^{-8}$ | 0 | $1.184 \cdot 10^{-11}$ | $1.184 \cdot 10^{-11}$ | 0 |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $9.549 \cdot 10^{-27}$ | $9.549 \cdot 10^{-27}$ | 0 | $4.424 \cdot 10^{-36}$ | $4.424 \cdot 10^{-36}$ | 0 |

2.32 Deltadclq1

| | interference | | | square | | |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | $7.498 \cdot 10^{-6}$ | $7.498 \cdot 10^{-6}$ | $-1.601 \cdot 10^{-7}$ | $2.275 \cdot 10^{-8}$ | $2.275 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $-2.205 \cdot 10^{-7}$ | $-2.205 \cdot 10^{-7}$ | $-4.534 \cdot 10^{-8}$ | $5.447 \cdot 10^{-10}$ | $5.447 \cdot 10^{-10}$ | 0 |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $-4.24 \cdot 10^{-9}$ | $-4.24 \cdot 10^{-9}$ | $-7.076 \cdot 10^{-8}$ | $5.204 \cdot 10^{-15}$ | $5.204 \cdot 10^{-15}$ | 0 |
| $d\bar{d} \rightarrow e^+ e^-$ | $3.026 \cdot 10^{-11}$ | $3.026 \cdot 10^{-11}$ | $-1.652 \cdot 10^{-7}$ | $1.146 \cdot 10^{-19}$ | $1.146 \cdot 10^{-19}$ | 0 |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-3.11 \cdot 10^{-9}$ | $-3.11 \cdot 10^{-9}$ | $-6.431 \cdot 10^{-8}$ | $3.799 \cdot 10^{-15}$ | $3.799 \cdot 10^{-15}$ | 0 |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $3.74 \cdot 10^{-6}$ | $3.74 \cdot 10^{-6}$ | $-2.406 \cdot 10^{-7}$ | $1.281 \cdot 10^{-8}$ | $1.281 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $-1.923 \cdot 10^{-5}$ | $-1.923 \cdot 10^{-5}$ | $-1.04 \cdot 10^{-7}$ | $4.647 \cdot 10^{-8}$ | $4.647 \cdot 10^{-8}$ | 0 |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $3.74 \cdot 10^{-11}$ | $3.74 \cdot 10^{-11}$ | $-1.604 \cdot 10^{-7}$ | $1.413 \cdot 10^{-19}$ | $1.413 \cdot 10^{-19}$ | 0 |

2.33 Deltadclq3

| | interference | | | square | | |
|--|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | $7.451 \cdot 10^{-6}$ | $7.451 \cdot 10^{-6}$ | $-1.61 \cdot 10^{-7}$ | $2.261 \cdot 10^{-8}$ | $2.261 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $3.104 \cdot 10^{-5}$ | $3.104 \cdot 10^{-5}$ | $-6.443 \cdot 10^{-8}$ | $7.662 \cdot 10^{-8}$ | $7.662 \cdot 10^{-8}$ | 0 |

| | | | | | | |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|---|
| $b\bar{t} \rightarrow e^-\bar{\nu}_e$ | 0.0001487 | 0.0001487 | $-1.345 \cdot 10^{-7}$ | $4.052 \cdot 10^{-7}$ | $4.052 \cdot 10^{-7}$ | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $4.659 \cdot 10^{-10}$ | $4.659 \cdot 10^{-10}$ | $-6.44 \cdot 10^{-8}$ | $5.718 \cdot 10^{-16}$ | $5.718 \cdot 10^{-16}$ | 0 |
| $c\bar{s} \rightarrow \tau^+\nu_\tau$ | $6.385 \cdot 10^{-8}$ | $6.385 \cdot 10^{-8}$ | $-1.096 \cdot 10^{-7}$ | $8.61 \cdot 10^{-14}$ | $8.61 \cdot 10^{-14}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $2.379 \cdot 10^{-12}$ | $2.379 \cdot 10^{-12}$ | $-1.681 \cdot 10^{-7}$ | $9.012 \cdot 10^{-21}$ | $9.012 \cdot 10^{-21}$ | 0 |
| $s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$ | $1.233 \cdot 10^{-8}$ | $1.233 \cdot 10^{-8}$ | $-8.11 \cdot 10^{-8}$ | $1.506 \cdot 10^{-14}$ | $1.506 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$ | $4.768 \cdot 10^{-7}$ | $4.768 \cdot 10^{-7}$ | $-7.132 \cdot 10^{-7}$ | $2.938 \cdot 10^{-9}$ | $2.938 \cdot 10^{-9}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | $2.929 \cdot 10^{-5}$ | $2.929 \cdot 10^{-5}$ | $-6.828 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | $7.143 \cdot 10^{-8}$ | 0 |
| $u\bar{d} \rightarrow \mu^+\nu_\mu$ | $1.47 \cdot 10^{-10}$ | $1.47 \cdot 10^{-10}$ | $-1.361 \cdot 10^{-7}$ | $4.998 \cdot 10^{-19}$ | $4.998 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow \nu_e\bar{\nu}_e$ | $3.293 \cdot 10^{-12}$ | $3.293 \cdot 10^{-12}$ | $-1.822 \cdot 10^{-7}$ | $1.244 \cdot 10^{-20}$ | $1.244 \cdot 10^{-20}$ | 0 |

2.34 Deltadcqe

| | interference | | | square | | |
|-------------------------------------|-------------------------|-------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $-2.518 \cdot 10^{-6}$ | $-2.518 \cdot 10^{-6}$ | $3.574 \cdot 10^{-7}$ | $3.328 \cdot 10^{-8}$ | $3.328 \cdot 10^{-8}$ | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-2.917 \cdot 10^{-9}$ | $-2.917 \cdot 10^{-9}$ | $3.428 \cdot 10^{-7}$ | $1.983 \cdot 10^{-14}$ | $1.983 \cdot 10^{-14}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $-6.226 \cdot 10^{-12}$ | $-6.226 \cdot 10^{-12}$ | $3.533 \cdot 10^{-7}$ | $1.027 \cdot 10^{-19}$ | $1.027 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | $-1.397 \cdot 10^{-6}$ | $-1.397 \cdot 10^{-6}$ | $3.58 \cdot 10^{-7}$ | $5.695 \cdot 10^{-9}$ | $5.695 \cdot 10^{-9}$ | 0 |

2.35 Deltadcqq1

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.0005756 | -0.0005756 | $-1.737 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $6.026 \cdot 10^{-6}$ | $6.026 \cdot 10^{-6}$ | $-9.957 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.0002963 | -0.0002963 | $-1.012 \cdot 10^{-7}$ | $5.118 \cdot 10^{-7}$ | $5.118 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-5.651 \cdot 10^{-6}$ | $-5.651 \cdot 10^{-6}$ | $-1.239 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-2.434 \cdot 10^{-8}$ | $-2.434 \cdot 10^{-8}$ | $-1.232 \cdot 10^{-7}$ | $3.405 \cdot 10^{-14}$ | $3.405 \cdot 10^{-14}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $3.144 \cdot 10^{-9}$ | $3.144 \cdot 10^{-9}$ | $-9.541 \cdot 10^{-8}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---|
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0007702 | -0.0007702 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $1.08 \cdot 10^{-5}$ | $1.08 \cdot 10^{-5}$ | $-9.259 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-3.106 \cdot 10^{-6}$ | $-3.106 \cdot 10^{-6}$ | $-2.253 \cdot 10^{-7}$ | $1.017 \cdot 10^{-8}$ | $1.017 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-8.396 \cdot 10^{-6}$ | $-8.396 \cdot 10^{-6}$ | $-1.548 \cdot 10^{-7}$ | $2.509 \cdot 10^{-8}$ | $2.509 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.0002063 | -0.0002063 | $-4.848 \cdot 10^{-8}$ | $1.412 \cdot 10^{-6}$ | $1.412 \cdot 10^{-6}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $5.258 \cdot 10^{-10}$ | $5.258 \cdot 10^{-10}$ | $-1.141 \cdot 10^{-7}$ | $9.755 \cdot 10^{-19}$ | $9.755 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.59 \cdot 10^{-9}$ | $1.59 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-7}$ | $2.082 \cdot 10^{-15}$ | $2.082 \cdot 10^{-15}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-6.905 \cdot 10^{-11}$ | $-6.905 \cdot 10^{-11}$ | $-1.448 \cdot 10^{-8}$ | $4.293 \cdot 10^{-19}$ | $4.293 \cdot 10^{-19}$ | 0 |

2.36 Deltadcqq11

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|-------------------------------|------------------------|------------------------|-------------------------------|
| | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ | mod1 | mod2 | $1 - \text{mod2}/\text{mod1}$ |
| $\bar{b}t \rightarrow \bar{d}u$ | $8.05 \cdot 10^{-5}$ | $8.05 \cdot 10^{-5}$ | $-1.118 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.02093 | -0.02093 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.0004458 | 0.0004458 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.0002575 | -0.0002575 | $-1.165 \cdot 10^{-7}$ | $4.648 \cdot 10^{-7}$ | $4.648 \cdot 10^{-7}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $5.66 \cdot 10^{-8}$ | $5.66 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-8.851 \cdot 10^{-7}$ | $-8.851 \cdot 10^{-7}$ | $-1.13 \cdot 10^{-8}$ | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.0003021 | 0.0003021 | 0 | $1.159 \cdot 10^{-7}$ | $1.159 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.006105 | -0.006105 | $-1.638 \cdot 10^{-8}$ | $7.066 \cdot 10^{-6}$ | $7.066 \cdot 10^{-6}$ | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $1.526 \cdot 10^{-9}$ | $1.526 \cdot 10^{-9}$ | $-1.31 \cdot 10^{-7}$ | $3.095 \cdot 10^{-15}$ | $3.095 \cdot 10^{-15}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $3.752 \cdot 10^{-10}$ | $3.752 \cdot 10^{-10}$ | $-1.066 \cdot 10^{-7}$ | $8.044 \cdot 10^{-19}$ | $8.044 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.372 \cdot 10^{-7}$ | $1.372 \cdot 10^{-7}$ | 0 | $2.824 \cdot 10^{-14}$ | $2.824 \cdot 10^{-14}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.896 \cdot 10^{-9}$ | $-1.896 \cdot 10^{-9}$ | 0 | $2.38 \cdot 10^{-18}$ | $2.38 \cdot 10^{-18}$ | 0 |

2.37 Deltadcqq3

interference

square

| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| $\bar{b}t \rightarrow \bar{d}u$ | 0.0002141 | 0.0002141 | $-9.343 \cdot 10^{-8}$ | $5.831 \cdot 10^{-7}$ | $5.831 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.0005756 | -0.0005756 | $-1.737 \cdot 10^{-8}$ | $9.895 \cdot 10^{-7}$ | $9.895 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $6.026 \cdot 10^{-6}$ | $6.026 \cdot 10^{-6}$ | $-9.957 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | $1.586 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.0002572 | 0.0002572 | $3.499 \cdot 10^{-7}$ | $1.877 \cdot 10^{-6}$ | $1.877 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $5.651 \cdot 10^{-6}$ | $5.651 \cdot 10^{-6}$ | $-1.239 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $2.434 \cdot 10^{-8}$ | $2.434 \cdot 10^{-8}$ | $-1.232 \cdot 10^{-7}$ | $3.405 \cdot 10^{-14}$ | $3.405 \cdot 10^{-14}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $3.144 \cdot 10^{-9}$ | $3.144 \cdot 10^{-9}$ | $-9.541 \cdot 10^{-8}$ | $4.107 \cdot 10^{-15}$ | $4.107 \cdot 10^{-15}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0007702 | -0.0007702 | 0 | $8.667 \cdot 10^{-13}$ | $8.667 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $1.08 \cdot 10^{-5}$ | $1.08 \cdot 10^{-5}$ | $-9.259 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | $2.724 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $3.106 \cdot 10^{-6}$ | $3.106 \cdot 10^{-6}$ | $-2.253 \cdot 10^{-7}$ | $1.017 \cdot 10^{-8}$ | $1.017 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $8.396 \cdot 10^{-6}$ | $8.396 \cdot 10^{-6}$ | $-1.548 \cdot 10^{-7}$ | $2.509 \cdot 10^{-8}$ | $2.509 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.0002063 | -0.0002063 | $-4.848 \cdot 10^{-8}$ | $1.412 \cdot 10^{-6}$ | $1.412 \cdot 10^{-6}$ | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $1.266 \cdot 10^{-7}$ | $1.266 \cdot 10^{-7}$ | $-1.58 \cdot 10^{-7}$ | $1.711 \cdot 10^{-13}$ | $1.711 \cdot 10^{-13}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-5.359 \cdot 10^{-9}$ | $-5.359 \cdot 10^{-9}$ | $1.866 \cdot 10^{-8}$ | $3.577 \cdot 10^{-18}$ | $3.577 \cdot 10^{-18}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.59 \cdot 10^{-9}$ | $1.59 \cdot 10^{-9}$ | $-1.258 \cdot 10^{-7}$ | $2.082 \cdot 10^{-15}$ | $2.082 \cdot 10^{-15}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-6.905 \cdot 10^{-11}$ | $-6.905 \cdot 10^{-11}$ | $-1.448 \cdot 10^{-8}$ | $4.293 \cdot 10^{-19}$ | $4.293 \cdot 10^{-19}$ | 0 |

2.38 Deltadcqq31

| | interference | | | square | | |
|---------------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $\bar{b}t \rightarrow \bar{d}u$ | $-8.05 \cdot 10^{-5}$ | $-8.05 \cdot 10^{-5}$ | $-1.118 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | $3.289 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.02093 | -0.02093 | 0 | $3.066 \cdot 10^{-6}$ | $3.066 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.0004458 | 0.0004458 | 0 | $1.849 \cdot 10^{-7}$ | $1.849 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.0002995 | 0.0002995 | $2.671 \cdot 10^{-7}$ | $1.704 \cdot 10^{-6}$ | $1.704 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.0002562 | 0.0002562 | 0 | $2.365 \cdot 10^{-7}$ | $2.365 \cdot 10^{-7}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $5.931 \cdot 10^{-7}$ | $5.931 \cdot 10^{-7}$ | $1.686 \cdot 10^{-8}$ | $2.717 \cdot 10^{-13}$ | $2.717 \cdot 10^{-13}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $5.66 \cdot 10^{-8}$ | $5.66 \cdot 10^{-8}$ | 0 | $1.165 \cdot 10^{-14}$ | $1.165 \cdot 10^{-14}$ | 0 |

| | | | | | | |
|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---|
| $s\bar{s} \rightarrow s\bar{s}$ | $-8.851 \cdot 10^{-7}$ | $-8.851 \cdot 10^{-7}$ | $-1.13 \cdot 10^{-8}$ | $3.998 \cdot 10^{-13}$ | $3.998 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.0003021 | 0.0003021 | 0 | $1.159 \cdot 10^{-7}$ | $1.159 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.0009444 | 0.0009444 | 0 | $8.297 \cdot 10^{-7}$ | $8.297 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.0004118 | 0.0004118 | 0 | $3.381 \cdot 10^{-7}$ | $3.381 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.006105 | -0.006105 | $-1.638 \cdot 10^{-8}$ | $7.066 \cdot 10^{-6}$ | $7.066 \cdot 10^{-6}$ | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $-1.526 \cdot 10^{-9}$ | $-1.526 \cdot 10^{-9}$ | $-1.31 \cdot 10^{-7}$ | $3.095 \cdot 10^{-15}$ | $3.095 \cdot 10^{-15}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-3.613 \cdot 10^{-9}$ | $-3.613 \cdot 10^{-9}$ | 0 | $2.95 \cdot 10^{-18}$ | $2.95 \cdot 10^{-18}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.372 \cdot 10^{-7}$ | $1.372 \cdot 10^{-7}$ | 0 | $2.824 \cdot 10^{-14}$ | $2.824 \cdot 10^{-14}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.896 \cdot 10^{-9}$ | $-1.896 \cdot 10^{-9}$ | 0 | $2.38 \cdot 10^{-18}$ | $2.38 \cdot 10^{-18}$ | 0 |

2.39 DeltadcuB

| | interference | | | square | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z c \bar{c}$ | $4.133 \cdot 10^{-18}$ | $4.133 \cdot 10^{-18}$ | $-5.565 \cdot 10^{-7}$ | $1.139 \cdot 10^{-24}$ | $1.139 \cdot 10^{-24}$ | $3.511 \cdot 10^{-7}$ |
| $HH \rightarrow z t \bar{t}$ | $-2.504 \cdot 10^{-9}$ | $-2.504 \cdot 10^{-9}$ | $-3.595 \cdot 10^{-7}$ | $9.837 \cdot 10^{-12}$ | $9.837 \cdot 10^{-12}$ | $3.558 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t \bar{b}$ | $7.786 \cdot 10^{-10}$ | $7.786 \cdot 10^{-10}$ | $-1.284 \cdot 10^{-8}$ | $2.971 \cdot 10^{-12}$ | $2.971 \cdot 10^{-12}$ | $-1.01 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u \bar{d}$ | $2.599 \cdot 10^{-25}$ | $2.599 \cdot 10^{-25}$ | $-3.848 \cdot 10^{-8}$ | $4.318 \cdot 10^{-34}$ | $4.318 \cdot 10^{-34}$ | $-2.316 \cdot 10^{-7}$ |
| $H\gamma \rightarrow c \bar{c}$ | $2.153 \cdot 10^{-16}$ | $2.153 \cdot 10^{-16}$ | $9.289 \cdot 10^{-8}$ | $9.946 \cdot 10^{-18}$ | $9.946 \cdot 10^{-18}$ | $-1.106 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t \bar{t}$ | 0.0001629 | 0.0001629 | $6.14 \cdot 10^{-8}$ | $8.43 \cdot 10^{-7}$ | $8.43 \cdot 10^{-7}$ | $-1.068 \cdot 10^{-7}$ |
| $H z \rightarrow t \bar{t}$ | $-2.684 \cdot 10^{-5}$ | $-2.684 \cdot 10^{-5}$ | $-4.099 \cdot 10^{-7}$ | $1.746 \cdot 10^{-7}$ | $1.746 \cdot 10^{-7}$ | $4.01 \cdot 10^{-7}$ |
| $H z \rightarrow u \bar{u}$ | $1.774 \cdot 10^{-21}$ | $1.774 \cdot 10^{-21}$ | $-3.946 \cdot 10^{-7}$ | $2.736 \cdot 10^{-29}$ | $2.736 \cdot 10^{-29}$ | $3.655 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H c \bar{c}$ | $-1.937 \cdot 10^{-18}$ | $-1.937 \cdot 10^{-18}$ | $1.032 \cdot 10^{-7}$ | $2.435 \cdot 10^{-26}$ | $2.435 \cdot 10^{-26}$ | $3.285 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | $-1.988 \cdot 10^{-10}$ | $-1.988 \cdot 10^{-10}$ | $-5.029 \cdot 10^{-8}$ | $8.352 \cdot 10^{-15}$ | $8.352 \cdot 10^{-15}$ | $3.592 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow t \bar{t}$ | $2.008 \cdot 10^{-6}$ | $2.008 \cdot 10^{-6}$ | $9.962 \cdot 10^{-8}$ | $3.973 \cdot 10^{-10}$ | $3.973 \cdot 10^{-10}$ | $3.524 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow u \bar{u}$ | $1.088 \cdot 10^{-23}$ | $1.088 \cdot 10^{-23}$ | $-2.941 \cdot 10^{-6}$ | $8.663 \cdot 10^{-32}$ | $8.663 \cdot 10^{-32}$ | $3.578 \cdot 10^{-7}$ |
| $c \bar{c} \rightarrow \mu^+ \mu^-$ | $-5.276 \cdot 10^{-14}$ | $-5.276 \cdot 10^{-14}$ | $3.791 \cdot 10^{-7}$ | $1 \cdot 10^{-20}$ | $1 \cdot 10^{-20}$ | $3.998 \cdot 10^{-7}$ |
| $d \bar{d} \rightarrow c \bar{c}$ | $2.472 \cdot 10^{-15}$ | $2.472 \cdot 10^{-15}$ | $-1.82 \cdot 10^{-6}$ | $4.715 \cdot 10^{-21}$ | $4.715 \cdot 10^{-21}$ | $3.606 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $9.453 \cdot 10^{-8}$ | $9.453 \cdot 10^{-8}$ | $-1.206 \cdot 10^{-6}$ | $2.434 \cdot 10^{-10}$ | $2.434 \cdot 10^{-10}$ | $3.698 \cdot 10^{-7}$ |
| $t \bar{t} \rightarrow \tau^+ \tau^-$ | $-7.785 \cdot 10^{-7}$ | $-7.785 \cdot 10^{-7}$ | $5.138 \cdot 10^{-7}$ | $2.886 \cdot 10^{-10}$ | $2.886 \cdot 10^{-10}$ | $3.812 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|-----------------------|
| $t\bar{t} \rightarrow c\bar{c}$ | $-9.169 \cdot 10^{-7}$ | $-9.169 \cdot 10^{-7}$ | $4.69 \cdot 10^{-7}$ | $7.765 \cdot 10^{-10}$ | $7.765 \cdot 10^{-10}$ | $3.606 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $3.67 \cdot 10^{-8}$ | $3.67 \cdot 10^{-8}$ | $-4.551 \cdot 10^{-6}$ | $4.153 \cdot 10^{-10}$ | $4.153 \cdot 10^{-10}$ | $3.612 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $3.16 \cdot 10^{-8}$ | $3.16 \cdot 10^{-8}$ | $-5.253 \cdot 10^{-6}$ | $4.136 \cdot 10^{-10}$ | $4.136 \cdot 10^{-10}$ | $3.626 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.0001137 | 0.0001137 | $1.759 \cdot 10^{-7}$ | $3.789 \cdot 10^{-8}$ | $3.789 \cdot 10^{-8}$ | $3.431 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-7.018 \cdot 10^{-22}$ | $-7.018 \cdot 10^{-22}$ | $-1.14 \cdot 10^{-7}$ | $2.181 \cdot 10^{-30}$ | $2.181 \cdot 10^{-30}$ | $3.209 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $5.279 \cdot 10^{-23}$ | $5.279 \cdot 10^{-23}$ | $-3.031 \cdot 10^{-7}$ | $5.197 \cdot 10^{-32}$ | $5.197 \cdot 10^{-32}$ | $3.463 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow c\bar{c}$ | $-3.322 \cdot 10^{-14}$ | $-3.322 \cdot 10^{-14}$ | $4.515 \cdot 10^{-7}$ | $1.352 \cdot 10^{-20}$ | $1.352 \cdot 10^{-20}$ | $3.699 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $3.147 \cdot 10^{-20}$ | $3.147 \cdot 10^{-20}$ | $1.906 \cdot 10^{-7}$ | $9.223 \cdot 10^{-30}$ | $9.223 \cdot 10^{-30}$ | $3.578 \cdot 10^{-7}$ |

2.40 DeltadcuG

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-4.394 \cdot 10^{-5}$ | $-4.394 \cdot 10^{-5}$ | $6.827 \cdot 10^{-8}$ | $1.386 \cdot 10^{-8}$ | $1.386 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-2.153 \cdot 10^{-20}$ | $-2.153 \cdot 10^{-20}$ | 0 | $2.176 \cdot 10^{-30}$ | $2.176 \cdot 10^{-30}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $1.584 \cdot 10^{-19}$ | $1.584 \cdot 10^{-19}$ | 0 |
| $gg \rightarrow t\bar{t}$ | $-7.417 \cdot 10^{-5}$ | $-7.417 \cdot 10^{-5}$ | 0 | $2.819 \cdot 10^{-8}$ | $2.819 \cdot 10^{-8}$ | 0 |
| $gg \rightarrow u\bar{u}$ | $-1.173 \cdot 10^{-19}$ | $-1.173 \cdot 10^{-19}$ | 0 | $8.306 \cdot 10^{-30}$ | $8.306 \cdot 10^{-30}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | -0.0001136 | -0.0001136 | 0 | $1.268 \cdot 10^{-8}$ | $1.268 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.0001136 | -0.0001136 | 0 | $9.372 \cdot 10^{-9}$ | $9.372 \cdot 10^{-9}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.0001136 | -0.0001136 | 0 | $1.24 \cdot 10^{-8}$ | $1.24 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | $-8.682 \cdot 10^{-5}$ | $-8.682 \cdot 10^{-5}$ | $2.304 \cdot 10^{-8}$ | $1.176 \cdot 10^{-7}$ | $1.176 \cdot 10^{-7}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.363 \cdot 10^{-20}$ | $-2.363 \cdot 10^{-20}$ | 0 | $2.784 \cdot 10^{-29}$ | $2.784 \cdot 10^{-29}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $9.274 \cdot 10^{-20}$ | $9.274 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-7.434 \cdot 10^{-20}$ | $-7.434 \cdot 10^{-20}$ | 0 | $1.023 \cdot 10^{-29}$ | $1.023 \cdot 10^{-29}$ | 0 |

2.41 DeltadcuH

interference

square

| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
|-------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $HH \rightarrow Ht\bar{t}$ | $-2.329 \cdot 10^{-8}$ | $-2.329 \cdot 10^{-8}$ | 0 | $4.999 \cdot 10^{-12}$ | $4.999 \cdot 10^{-12}$ | 0 |
| $HH \rightarrow Hu\bar{u}$ | $-8.32 \cdot 10^{-25}$ | $-8.32 \cdot 10^{-25}$ | 0 | $5.336 \cdot 10^{-34}$ | $5.336 \cdot 10^{-34}$ | 0 |
| $HH \rightarrow W^+t\bar{b}$ | $7.755 \cdot 10^{-9}$ | $7.755 \cdot 10^{-9}$ | $-6.447 \cdot 10^{-8}$ | $1.626 \cdot 10^{-12}$ | $1.626 \cdot 10^{-12}$ | $-6.149 \cdot 10^{-8}$ |
| $HH \rightarrow W^-u\bar{d}$ | $-4.106 \cdot 10^{-27}$ | $-4.106 \cdot 10^{-27}$ | $-2.168 \cdot 10^{-5}$ | $1.131 \cdot 10^{-34}$ | $1.131 \cdot 10^{-34}$ | $-8.844 \cdot 10^{-8}$ |
| $HH \rightarrow zc\bar{c}$ | $-8.975 \cdot 10^{-17}$ | $-8.975 \cdot 10^{-17}$ | $-3.231 \cdot 10^{-7}$ | $1.598 \cdot 10^{-23}$ | $1.598 \cdot 10^{-23}$ | $-3.756 \cdot 10^{-7}$ |
| $HH \rightarrow zt\bar{t}$ | $-1.004 \cdot 10^{-9}$ | $-1.004 \cdot 10^{-9}$ | 0 | $2.959 \cdot 10^{-13}$ | $2.959 \cdot 10^{-13}$ | $-1.352 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $2.847 \cdot 10^{-12}$ | $2.847 \cdot 10^{-12}$ | $3.864 \cdot 10^{-7}$ | $9.77 \cdot 10^{-16}$ | $9.77 \cdot 10^{-16}$ | $2.456 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $1.766 \cdot 10^{-27}$ | $1.766 \cdot 10^{-27}$ | $1.359 \cdot 10^{-6}$ | $3.425 \cdot 10^{-36}$ | $3.425 \cdot 10^{-36}$ | $2.336 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $-1.718 \cdot 10^{-21}$ | $-1.718 \cdot 10^{-21}$ | $-1.164 \cdot 10^{-7}$ | $4.906 \cdot 10^{-30}$ | $4.906 \cdot 10^{-30}$ | $-2.038 \cdot 10^{-8}$ |
| $HW^- \rightarrow t\bar{b}$ | $6.119 \cdot 10^{-6}$ | $6.119 \cdot 10^{-6}$ | $6.21 \cdot 10^{-7}$ | $1.616 \cdot 10^{-8}$ | $1.616 \cdot 10^{-8}$ | 0 |
| $H\gamma \rightarrow c\bar{c}$ | $-1.073 \cdot 10^{-12}$ | $-1.073 \cdot 10^{-12}$ | $2.796 \cdot 10^{-7}$ | $9.279 \cdot 10^{-21}$ | $9.279 \cdot 10^{-21}$ | $2.479 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t\bar{t}$ | $-5.895 \cdot 10^{-5}$ | $-5.895 \cdot 10^{-5}$ | $2.545 \cdot 10^{-7}$ | $1.03 \cdot 10^{-9}$ | $1.03 \cdot 10^{-9}$ | $1.942 \cdot 10^{-7}$ |
| $H z \rightarrow t\bar{t}$ | $-6.906 \cdot 10^{-6}$ | $-6.906 \cdot 10^{-6}$ | $-5.503 \cdot 10^{-7}$ | $2.186 \cdot 10^{-8}$ | $2.186 \cdot 10^{-8}$ | 0 |
| $H z \rightarrow u\bar{u}$ | $-1.008 \cdot 10^{-20}$ | $-1.008 \cdot 10^{-20}$ | $-1.984 \cdot 10^{-7}$ | $5.096 \cdot 10^{-30}$ | $5.096 \cdot 10^{-30}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $1.388 \cdot 10^{-9}$ | $1.388 \cdot 10^{-9}$ | 0 | $6.699 \cdot 10^{-14}$ | $6.699 \cdot 10^{-14}$ | $-1.493 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $-1.842 \cdot 10^{-18}$ | $-1.842 \cdot 10^{-18}$ | 0 | $4.28 \cdot 10^{-25}$ | $4.28 \cdot 10^{-25}$ | 0 |
| $W^+W^- \rightarrow Hd\bar{d}$ | $1.902 \cdot 10^{-26}$ | $1.902 \cdot 10^{-26}$ | $-1.577 \cdot 10^{-7}$ | $2.098 \cdot 10^{-46}$ | $2.098 \cdot 10^{-46}$ | 0 |
| $W^+W^- \rightarrow Ht\bar{t}$ | $1.67 \cdot 10^{-10}$ | $1.67 \cdot 10^{-10}$ | $5.987 \cdot 10^{-8}$ | $1.135 \cdot 10^{-13}$ | $1.135 \cdot 10^{-13}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-5.888 \cdot 10^{-9}$ | $-5.888 \cdot 10^{-9}$ | 0 | $1.575 \cdot 10^{-13}$ | $1.575 \cdot 10^{-13}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-1.999 \cdot 10^{-24}$ | $-1.999 \cdot 10^{-24}$ | 0 | $4.355 \cdot 10^{-35}$ | $4.355 \cdot 10^{-35}$ | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-5.897 \cdot 10^{-20}$ | $-5.897 \cdot 10^{-20}$ | 0 | $5.043 \cdot 10^{-28}$ | $5.043 \cdot 10^{-28}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-3.397 \cdot 10^{-22}$ | $-3.397 \cdot 10^{-22}$ | 0 | $2.956 \cdot 10^{-30}$ | $2.956 \cdot 10^{-30}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | $-5.747 \cdot 10^{-10}$ | $-5.747 \cdot 10^{-10}$ | 0 | $1.014 \cdot 10^{-14}$ | $1.014 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $-8.913 \cdot 10^{-10}$ | $-8.913 \cdot 10^{-10}$ | 0 | $1.555 \cdot 10^{-14}$ | $1.555 \cdot 10^{-14}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-1.197 \cdot 10^{-14}$ | $-1.197 \cdot 10^{-14}$ | 0 | $2.101 \cdot 10^{-19}$ | $2.101 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-4.769 \cdot 10^{-12}$ | $-4.769 \cdot 10^{-12}$ | 0 | $8.331 \cdot 10^{-17}$ | $8.331 \cdot 10^{-17}$ | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.0001161 | 0.0001161 | 0 | $3.105 \cdot 10^{-9}$ | $3.105 \cdot 10^{-9}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.209 \cdot 10^{-30}$ | $-1.209 \cdot 10^{-30}$ | 0 | $4.855 \cdot 10^{-41}$ | $4.855 \cdot 10^{-41}$ | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|---|------------------------|------------------------|---|
| $u\bar{u} \rightarrow c\bar{c}$ | $-7.344 \cdot 10^{-23}$ | $-7.344 \cdot 10^{-23}$ | 0 | $6.355 \cdot 10^{-31}$ | $6.355 \cdot 10^{-31}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $2.927 \cdot 10^{-20}$ | $2.927 \cdot 10^{-20}$ | 0 | $1.023 \cdot 10^{-40}$ | $1.023 \cdot 10^{-40}$ | 0 |

2.42 DeltadcuW

| | interference | | | square | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow W^+ \bar{t}b$ | $1.647 \cdot 10^{-8}$ | $1.647 \cdot 10^{-8}$ | $-1.214 \cdot 10^{-7}$ | $1.108 \cdot 10^{-11}$ | $1.108 \cdot 10^{-11}$ | 0 |
| $HH \rightarrow W^- u\bar{d}$ | $2.217 \cdot 10^{-24}$ | $2.217 \cdot 10^{-24}$ | $-1.353 \cdot 10^{-7}$ | $1.603 \cdot 10^{-34}$ | $1.603 \cdot 10^{-34}$ | $-6.237 \cdot 10^{-8}$ |
| $HH \rightarrow z c\bar{c}$ | $-5.643 \cdot 10^{-17}$ | $-5.643 \cdot 10^{-17}$ | $-6.556 \cdot 10^{-7}$ | $1.858 \cdot 10^{-23}$ | $1.858 \cdot 10^{-23}$ | $-1.076 \cdot 10^{-7}$ |
| $HH \rightarrow z t\bar{t}$ | $5.178 \cdot 10^{-10}$ | $5.178 \cdot 10^{-10}$ | $-6.373 \cdot 10^{-7}$ | $1.907 \cdot 10^{-11}$ | $1.907 \cdot 10^{-11}$ | $-1.049 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-1.387 \cdot 10^{-10}$ | $-1.387 \cdot 10^{-10}$ | $3.606 \cdot 10^{-7}$ | $2.282 \cdot 10^{-13}$ | $2.282 \cdot 10^{-13}$ | $3.505 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $-6.925 \cdot 10^{-26}$ | $-6.925 \cdot 10^{-26}$ | $2.022 \cdot 10^{-7}$ | $9.195 \cdot 10^{-35}$ | $9.195 \cdot 10^{-35}$ | $2.393 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $-6.313 \cdot 10^{-21}$ | $-6.313 \cdot 10^{-21}$ | $-1.584 \cdot 10^{-7}$ | $1.618 \cdot 10^{-28}$ | $1.618 \cdot 10^{-28}$ | 0 |
| $HW^- \rightarrow \bar{t}b$ | $6.464 \cdot 10^{-5}$ | $6.464 \cdot 10^{-5}$ | $-1.547 \cdot 10^{-8}$ | $3.763 \cdot 10^{-7}$ | $3.763 \cdot 10^{-7}$ | 0 |
| $H\gamma \rightarrow c\bar{c}$ | $1.321 \cdot 10^{-16}$ | $1.321 \cdot 10^{-16}$ | $3.029 \cdot 10^{-7}$ | $2.728 \cdot 10^{-18}$ | $2.728 \cdot 10^{-18}$ | $3.665 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t\bar{t}$ | 0.0001641 | 0.0001641 | $3.047 \cdot 10^{-7}$ | $1.564 \cdot 10^{-7}$ | $1.564 \cdot 10^{-7}$ | $3.837 \cdot 10^{-7}$ |
| $H z \rightarrow t\bar{t}$ | $3.309 \cdot 10^{-5}$ | $3.309 \cdot 10^{-5}$ | $-6.346 \cdot 10^{-7}$ | $7.148 \cdot 10^{-7}$ | $7.148 \cdot 10^{-7}$ | $-9.793 \cdot 10^{-8}$ |
| $H z \rightarrow u\bar{u}$ | $-3.214 \cdot 10^{-21}$ | $-3.214 \cdot 10^{-21}$ | $-6.535 \cdot 10^{-7}$ | $3.498 \cdot 10^{-29}$ | $3.498 \cdot 10^{-29}$ | $-1.143 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H b\bar{b}$ | $-9.5 \cdot 10^{-10}$ | $-9.5 \cdot 10^{-10}$ | $-9.473 \cdot 10^{-8}$ | $5.407 \cdot 10^{-13}$ | $5.407 \cdot 10^{-13}$ | 0 |
| $W^+ W^- \rightarrow H c\bar{c}$ | $2.87 \cdot 10^{-17}$ | $2.87 \cdot 10^{-17}$ | $-1.394 \cdot 10^{-7}$ | $1.449 \cdot 10^{-23}$ | $1.449 \cdot 10^{-23}$ | $-1.38 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H d\bar{d}$ | $-8.247 \cdot 10^{-26}$ | $-8.247 \cdot 10^{-26}$ | $-1.698 \cdot 10^{-7}$ | $5.356 \cdot 10^{-44}$ | $5.356 \cdot 10^{-44}$ | $1.867 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H t\bar{t}$ | $-6.267 \cdot 10^{-10}$ | $-6.267 \cdot 10^{-10}$ | $-1.277 \cdot 10^{-7}$ | $1.02 \cdot 10^{-11}$ | $1.02 \cdot 10^{-11}$ | 0 |
| $\bar{b}t \rightarrow \bar{d}u$ | $-9.455 \cdot 10^{-6}$ | $-9.455 \cdot 10^{-6}$ | $-1.587 \cdot 10^{-7}$ | $5.844 \cdot 10^{-10}$ | $5.844 \cdot 10^{-10}$ | $-1.027 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $2.284 \cdot 10^{-5}$ | $2.284 \cdot 10^{-5}$ | $-1.751 \cdot 10^{-7}$ | $4.114 \cdot 10^{-8}$ | $4.114 \cdot 10^{-8}$ | $-9.724 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $-3.045 \cdot 10^{-22}$ | $-3.045 \cdot 10^{-22}$ | $-2.956 \cdot 10^{-7}$ | $5.024 \cdot 10^{-31}$ | $5.024 \cdot 10^{-31}$ | $-1.194 \cdot 10^{-7}$ |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $-3.027 \cdot 10^{-6}$ | $-3.027 \cdot 10^{-6}$ | $-1.652 \cdot 10^{-7}$ | $3.92 \cdot 10^{-10}$ | $3.92 \cdot 10^{-10}$ | $-1.02 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $-2.122 \cdot 10^{-14}$ | $-2.122 \cdot 10^{-14}$ | $1.413 \cdot 10^{-7}$ | $4.609 \cdot 10^{-21}$ | $4.609 \cdot 10^{-21}$ | $-1.085 \cdot 10^{-7}$ |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $-7.545 \cdot 10^{-14}$ | $-7.545 \cdot 10^{-14}$ | $-1.59 \cdot 10^{-7}$ | $7.267 \cdot 10^{-21}$ | $7.267 \cdot 10^{-21}$ | $-1.101 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.104 \cdot 10^{-13}$ | $-1.104 \cdot 10^{-13}$ | $-1.812 \cdot 10^{-7}$ | $9.067 \cdot 10^{-21}$ | $9.067 \cdot 10^{-21}$ | $-1.103 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $3.275 \cdot 10^{-7}$ | $3.275 \cdot 10^{-7}$ | $6.718 \cdot 10^{-7}$ | $4.835 \cdot 10^{-10}$ | $4.835 \cdot 10^{-10}$ | $-1.241 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $-1.534 \cdot 10^{-6}$ | $-1.534 \cdot 10^{-6}$ | $-6.518 \cdot 10^{-8}$ | $5.945 \cdot 10^{-10}$ | $5.945 \cdot 10^{-10}$ | $-1.177 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | $-3.165 \cdot 10^{-6}$ | $-3.165 \cdot 10^{-6}$ | $-9.478 \cdot 10^{-8}$ | $2.441 \cdot 10^{-9}$ | $2.441 \cdot 10^{-9}$ | $-1.229 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $-3.472 \cdot 10^{-6}$ | $-3.472 \cdot 10^{-6}$ | $-2.016 \cdot 10^{-7}$ | $1.854 \cdot 10^{-9}$ | $1.854 \cdot 10^{-9}$ | $-1.078 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $-1.972 \cdot 10^{-6}$ | $-1.972 \cdot 10^{-6}$ | $-2.536 \cdot 10^{-7}$ | $2.494 \cdot 10^{-9}$ | $2.494 \cdot 10^{-9}$ | $-1.203 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.000334 | 0.000334 | $-5.988 \cdot 10^{-8}$ | $1.126 \cdot 10^{-7}$ | $1.126 \cdot 10^{-7}$ | $-8.882 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $-5.26 \cdot 10^{-22}$ | $-5.26 \cdot 10^{-22}$ | $-1.711 \cdot 10^{-7}$ | $1.739 \cdot 10^{-31}$ | $1.739 \cdot 10^{-31}$ | $-1.15 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $-4.944 \cdot 10^{-14}$ | $-4.944 \cdot 10^{-14}$ | $-1.618 \cdot 10^{-7}$ | $3.505 \cdot 10^{-20}$ | $3.505 \cdot 10^{-20}$ | $-8.56 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $2.172 \cdot 10^{-20}$ | $2.172 \cdot 10^{-20}$ | 0 | $3.504 \cdot 10^{-30}$ | $3.504 \cdot 10^{-30}$ | $-1.142 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $1.738 \cdot 10^{-23}$ | $1.738 \cdot 10^{-23}$ | $2.532 \cdot 10^{-6}$ | $1.352 \cdot 10^{-31}$ | $1.352 \cdot 10^{-31}$ | $-1.479 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow c\bar{c}$ | $-8.385 \cdot 10^{-14}$ | $-8.385 \cdot 10^{-14}$ | $-1.073 \cdot 10^{-7}$ | $2.707 \cdot 10^{-20}$ | $2.707 \cdot 10^{-20}$ | $-1.108 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $1.254 \cdot 10^{-20}$ | $1.254 \cdot 10^{-20}$ | $-1.595 \cdot 10^{-7}$ | $1.02 \cdot 10^{-29}$ | $1.02 \cdot 10^{-29}$ | $-9.805 \cdot 10^{-8}$ |

2.43 Deltadcud1

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-1.29 \cdot 10^{-5}$ | $-1.29 \cdot 10^{-5}$ | $3.875 \cdot 10^{-7}$ | $1.28 \cdot 10^{-7}$ | $1.28 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-1.577 \cdot 10^{-6}$ | $-1.577 \cdot 10^{-6}$ | $3.805 \cdot 10^{-7}$ | $1.593 \cdot 10^{-8}$ | $1.593 \cdot 10^{-8}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.709 \cdot 10^{-11}$ | $-1.709 \cdot 10^{-11}$ | $3.511 \cdot 10^{-7}$ | $2.154 \cdot 10^{-19}$ | $2.154 \cdot 10^{-19}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-1.557 \cdot 10^{-12}$ | $-1.557 \cdot 10^{-12}$ | $3.212 \cdot 10^{-7}$ | $1.584 \cdot 10^{-20}$ | $1.584 \cdot 10^{-20}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-1.348 \cdot 10^{-9}$ | $-1.348 \cdot 10^{-9}$ | $3.71 \cdot 10^{-7}$ | $6.143 \cdot 10^{-15}$ | $6.143 \cdot 10^{-15}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $6.118 \cdot 10^{-11}$ | $6.118 \cdot 10^{-11}$ | $3.432 \cdot 10^{-7}$ | $2.439 \cdot 10^{-19}$ | $2.439 \cdot 10^{-19}$ | 0 |

2.44 Deltadcud8

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

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|---|------------------------|------------------------|---|
| $b\bar{b} \rightarrow t\bar{t}$ | 0.0001575 | 0.0001575 | 0 | $2.844 \cdot 10^{-8}$ | $2.844 \cdot 10^{-8}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $1.82 \cdot 10^{-5}$ | $1.82 \cdot 10^{-5}$ | 0 | $3.54 \cdot 10^{-9}$ | $3.54 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $1.972 \cdot 10^{-10}$ | $1.972 \cdot 10^{-10}$ | 0 | $4.788 \cdot 10^{-20}$ | $4.788 \cdot 10^{-20}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $2.864 \cdot 10^{-11}$ | $2.864 \cdot 10^{-11}$ | 0 | $3.52 \cdot 10^{-21}$ | $3.52 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $1.978 \cdot 10^{-8}$ | $1.978 \cdot 10^{-8}$ | 0 | $1.365 \cdot 10^{-15}$ | $1.365 \cdot 10^{-15}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-7.117 \cdot 10^{-10}$ | $-7.117 \cdot 10^{-10}$ | 0 | $5.419 \cdot 10^{-20}$ | $5.419 \cdot 10^{-20}$ | 0 |

2.45 DeltaucHq1

| | interference | | | square | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z\bar{b}b$ | $1.046 \cdot 10^{-6}$ | $1.046 \cdot 10^{-6}$ | 0 | $6.426 \cdot 10^{-7}$ | $6.426 \cdot 10^{-7}$ | 0 |
| $HH \rightarrow zc\bar{c}$ | $-1.669 \cdot 10^{-10}$ | $-1.669 \cdot 10^{-10}$ | $-1.798 \cdot 10^{-7}$ | $3.365 \cdot 10^{-14}$ | $3.365 \cdot 10^{-14}$ | 0 |
| $HH \rightarrow zd\bar{d}$ | $7.91 \cdot 10^{-16}$ | $7.91 \cdot 10^{-16}$ | $-6.321 \cdot 10^{-8}$ | $2.041 \cdot 10^{-25}$ | $2.041 \cdot 10^{-25}$ | 0 |
| $HH \rightarrow zt\bar{t}$ | $1.192 \cdot 10^{-5}$ | $1.192 \cdot 10^{-5}$ | $-8.386 \cdot 10^{-8}$ | $1.999 \cdot 10^{-5}$ | $1.999 \cdot 10^{-5}$ | 0 |
| $H z \rightarrow b\bar{b}$ | 0.205 | 0.205 | $-4.877 \cdot 10^{-8}$ | 0.8767 | 0.8767 | 0 |
| $H z \rightarrow s\bar{s}$ | $2.713 \cdot 10^{-6}$ | $2.713 \cdot 10^{-6}$ | $-7.371 \cdot 10^{-8}$ | $6.234 \cdot 10^{-10}$ | $6.234 \cdot 10^{-10}$ | 0 |
| $H z \rightarrow t\bar{t}$ | 2.042 | 2.042 | 0 | 1.007 | 1.007 | 0 |
| $H z \rightarrow u\bar{u}$ | $-9.54 \cdot 10^{-12}$ | $-9.54 \cdot 10^{-12}$ | $-1.677 \cdot 10^{-7}$ | $7.774 \cdot 10^{-21}$ | $7.774 \cdot 10^{-21}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $2.562 \cdot 10^{-6}$ | $2.562 \cdot 10^{-6}$ | $-7.806 \cdot 10^{-8}$ | $2.722 \cdot 10^{-7}$ | $2.722 \cdot 10^{-7}$ | $-7.348 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $-1.739 \cdot 10^{-11}$ | $-1.739 \cdot 10^{-11}$ | $-1.725 \cdot 10^{-7}$ | $6.304 \cdot 10^{-16}$ | $6.304 \cdot 10^{-16}$ | $-7.932 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $4.387 \cdot 10^{-17}$ | $4.387 \cdot 10^{-17}$ | $-1.368 \cdot 10^{-7}$ | $6.935 \cdot 10^{-27}$ | $6.935 \cdot 10^{-27}$ | $-8.652 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Ht\bar{t}$ | $4.891 \cdot 10^{-7}$ | $4.891 \cdot 10^{-7}$ | $-8.178 \cdot 10^{-8}$ | $1.777 \cdot 10^{-6}$ | $1.777 \cdot 10^{-6}$ | 0 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $7.372 \cdot 10^{-5}$ | $7.372 \cdot 10^{-5}$ | $-2.035 \cdot 10^{-7}$ | $2.807 \cdot 10^{-6}$ | $2.807 \cdot 10^{-6}$ | $1.069 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | 0.0004446 | 0.0004446 | $-6.747 \cdot 10^{-8}$ | $1.572 \cdot 10^{-5}$ | $1.572 \cdot 10^{-5}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.01407 | -0.01407 | $2.274 \cdot 10^{-6}$ | 0.02632 | 0.02632 | $-1.14 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.0008505 | 0.0008505 | $-1.528 \cdot 10^{-7}$ | $2.714 \cdot 10^{-5}$ | $2.714 \cdot 10^{-5}$ | $-1.105 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.0006788 | -0.0006788 | $2.946 \cdot 10^{-7}$ | $2.155 \cdot 10^{-6}$ | $2.155 \cdot 10^{-6}$ | $7.425 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.0002319 | 0.0002319 | $-1.725 \cdot 10^{-7}$ | $7.961 \cdot 10^{-6}$ | $7.961 \cdot 10^{-6}$ | $-3.768 \cdot 10^{-8}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $1.743 \cdot 10^{-9}$ | $1.743 \cdot 10^{-9}$ | $9.755 \cdot 10^{-7}$ | $1.098 \cdot 10^{-14}$ | $1.098 \cdot 10^{-14}$ | $6.377 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $-6.393 \cdot 10^{-8}$ | $-6.393 \cdot 10^{-8}$ | $-2.033 \cdot 10^{-7}$ | $1.178 \cdot 10^{-13}$ | $1.178 \cdot 10^{-13}$ | $-8.486 \cdot 10^{-8}$ |
| $d\bar{d} \rightarrow e^+ e^-$ | $7.491 \cdot 10^{-15}$ | $7.491 \cdot 10^{-15}$ | $3.471 \cdot 10^{-7}$ | $8.034 \cdot 10^{-26}$ | $8.034 \cdot 10^{-26}$ | $5.726 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $1.213 \cdot 10^{-8}$ | $1.213 \cdot 10^{-8}$ | $-1.648 \cdot 10^{-7}$ | $2.207 \cdot 10^{-14}$ | $2.207 \cdot 10^{-14}$ | $-4.531 \cdot 10^{-8}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $1.928 \cdot 10^{-8}$ | $1.928 \cdot 10^{-8}$ | $-5.187 \cdot 10^{-8}$ | $3.683 \cdot 10^{-14}$ | $3.683 \cdot 10^{-14}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-2.164 \cdot 10^{-6}$ | $-2.164 \cdot 10^{-6}$ | $-4.62 \cdot 10^{-8}$ | $2.189 \cdot 10^{-12}$ | $2.189 \cdot 10^{-12}$ | $-9.138 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | $-6.828 \cdot 10^{-6}$ | $-6.828 \cdot 10^{-6}$ | $-6.883 \cdot 10^{-7}$ | $6.027 \cdot 10^{-7}$ | $6.027 \cdot 10^{-7}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | -0.0002152 | -0.0002152 | $-4.181 \cdot 10^{-7}$ | $4.446 \cdot 10^{-6}$ | $4.446 \cdot 10^{-6}$ | $-5.398 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | -0.0004163 | -0.0004163 | $-3.122 \cdot 10^{-7}$ | $1.258 \cdot 10^{-5}$ | $1.258 \cdot 10^{-5}$ | $-2.384 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.0008805 | -0.0008805 | $-2.044 \cdot 10^{-7}$ | $3.043 \cdot 10^{-5}$ | $3.043 \cdot 10^{-5}$ | $-1.315 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.000349 | -0.000349 | $-2.006 \cdot 10^{-7}$ | $1.281 \cdot 10^{-5}$ | $1.281 \cdot 10^{-5}$ | $-7.809 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.2557 | 0.2557 | 0 | 0.009883 | 0.009883 | $-1.012 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-4.055 \cdot 10^{-14}$ | $-4.055 \cdot 10^{-14}$ | $-8.631 \cdot 10^{-7}$ | $1.444 \cdot 10^{-24}$ | $1.444 \cdot 10^{-24}$ | $7.619 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $-5.907 \cdot 10^{-15}$ | $-5.907 \cdot 10^{-15}$ | $-1.524 \cdot 10^{-7}$ | $4.002 \cdot 10^{-26}$ | $4.002 \cdot 10^{-26}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-2.25 \cdot 10^{-8}$ | $-2.25 \cdot 10^{-8}$ | $-3.111 \cdot 10^{-7}$ | $3.586 \cdot 10^{-14}$ | $3.586 \cdot 10^{-14}$ | $-2.231 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $4.782 \cdot 10^{-12}$ | $4.782 \cdot 10^{-12}$ | $-1.046 \cdot 10^{-7}$ | $1.223 \cdot 10^{-23}$ | $1.223 \cdot 10^{-23}$ | $-8.18 \cdot 10^{-8}$ |

2.46 DeltaucHq3

| | interference | | | square | | |
|------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow W^+ \bar{t}b$ | $-1.374 \cdot 10^{-6}$ | $-1.374 \cdot 10^{-6}$ | $4.366 \cdot 10^{-7}$ | $4.081 \cdot 10^{-6}$ | $4.081 \cdot 10^{-6}$ | 0 |
| $HH \rightarrow W^- u\bar{d}$ | $2.861 \cdot 10^{-16}$ | $2.861 \cdot 10^{-16}$ | $-2.097 \cdot 10^{-7}$ | $5.012 \cdot 10^{-26}$ | $5.012 \cdot 10^{-26}$ | $-1.197 \cdot 10^{-7}$ |
| $HH \rightarrow z\bar{b}b$ | $5.014 \cdot 10^{-7}$ | $5.014 \cdot 10^{-7}$ | $-5.983 \cdot 10^{-8}$ | $6.089 \cdot 10^{-7}$ | $6.089 \cdot 10^{-7}$ | 0 |
| $HH \rightarrow zc\bar{c}$ | $2.58 \cdot 10^{-11}$ | $2.58 \cdot 10^{-11}$ | $-1.938 \cdot 10^{-7}$ | $9.241 \cdot 10^{-16}$ | $9.241 \cdot 10^{-16}$ | 0 |
| $HH \rightarrow zd\bar{d}$ | $2.467 \cdot 10^{-16}$ | $2.467 \cdot 10^{-16}$ | $-8.108 \cdot 10^{-8}$ | $5.617 \cdot 10^{-26}$ | $5.617 \cdot 10^{-26}$ | 0 |
| $HH \rightarrow zt\bar{t}$ | -0.000122 | -0.000122 | $8.196 \cdot 10^{-8}$ | $5.652 \cdot 10^{-5}$ | $5.652 \cdot 10^{-5}$ | 0 |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-3.734 \cdot 10^{-7}$ | $-3.734 \cdot 10^{-7}$ | $2.678 \cdot 10^{-7}$ | $1.694 \cdot 10^{-7}$ | $1.694 \cdot 10^{-7}$ | $1.771 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $4.147 \cdot 10^{-15}$ | $4.147 \cdot 10^{-15}$ | $1.929 \cdot 10^{-7}$ | $1.344 \cdot 10^{-24}$ | $1.344 \cdot 10^{-24}$ | $2.976 \cdot 10^{-7}$ |

| | | | | | | |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| $HW^+ \rightarrow u\bar{d}$ | $4.978 \cdot 10^{-11}$ | $4.978 \cdot 10^{-11}$ | $-1.205 \cdot 10^{-7}$ | $3.644 \cdot 10^{-20}$ | $3.644 \cdot 10^{-20}$ | $-2.744 \cdot 10^{-8}$ |
| $HW^- \rightarrow \bar{t}b$ | -2.422 | -2.422 | 0 | 0.8281 | 0.8281 | 0 |
| $H\bar{z} \rightarrow b\bar{b}$ | 0.2323 | 0.2323 | $-8.611 \cdot 10^{-8}$ | 0.9925 | 0.9925 | 0 |
| $H\bar{z} \rightarrow s\bar{s}$ | $1.148 \cdot 10^{-5}$ | $1.148 \cdot 10^{-5}$ | $-8.712 \cdot 10^{-8}$ | $2.637 \cdot 10^{-9}$ | $2.637 \cdot 10^{-9}$ | 0 |
| $H\bar{z} \rightarrow t\bar{t}$ | -2.058 | -2.058 | $4.86 \cdot 10^{-8}$ | 1.355 | 1.355 | 0 |
| $H\bar{z} \rightarrow u\bar{u}$ | $2.642 \cdot 10^{-11}$ | $2.642 \cdot 10^{-11}$ | $-1.514 \cdot 10^{-7}$ | $2.153 \cdot 10^{-20}$ | $2.153 \cdot 10^{-20}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $-3.345 \cdot 10^{-6}$ | $-3.345 \cdot 10^{-6}$ | $-5.978 \cdot 10^{-8}$ | $1.191 \cdot 10^{-6}$ | $1.191 \cdot 10^{-6}$ | $-8.396 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $4.448 \cdot 10^{-11}$ | $4.448 \cdot 10^{-11}$ | $-2.698 \cdot 10^{-7}$ | $3.358 \cdot 10^{-15}$ | $3.358 \cdot 10^{-15}$ | $-1.191 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $6.399 \cdot 10^{-17}$ | $6.399 \cdot 10^{-17}$ | $-2.656 \cdot 10^{-7}$ | $3.273 \cdot 10^{-26}$ | $3.273 \cdot 10^{-26}$ | $-1.222 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Ht\bar{t}$ | $1.431 \cdot 10^{-5}$ | $1.431 \cdot 10^{-5}$ | $-6.987 \cdot 10^{-8}$ | $1.721 \cdot 10^{-5}$ | $1.721 \cdot 10^{-5}$ | 0 |
| $\bar{b}t \rightarrow \bar{d}u$ | 0.002345 | 0.002345 | $-2.132 \cdot 10^{-7}$ | $7 \cdot 10^{-5}$ | $7 \cdot 10^{-5}$ | $-2.143 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $7.398 \cdot 10^{-5}$ | $7.398 \cdot 10^{-5}$ | $-2.027 \cdot 10^{-7}$ | $2.808 \cdot 10^{-6}$ | $2.808 \cdot 10^{-6}$ | $7.124 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | $3.159 \cdot 10^{-6}$ | $3.159 \cdot 10^{-6}$ | $-6.332 \cdot 10^{-8}$ | $1.117 \cdot 10^{-7}$ | $1.117 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.01809 | -0.01809 | $-5.528 \cdot 10^{-8}$ | 0.0002261 | 0.0002261 | $-8.844 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $8.429 \cdot 10^{-5}$ | $8.429 \cdot 10^{-5}$ | $-4.746 \cdot 10^{-8}$ | $3.329 \cdot 10^{-6}$ | $3.329 \cdot 10^{-6}$ | $1.202 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.03801 | 0.03801 | $-1.316 \cdot 10^{-7}$ | 0.006827 | 0.006827 | $-8.788 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.0001013 | 0.0001013 | $1.974 \cdot 10^{-7}$ | $5.582 \cdot 10^{-6}$ | $5.582 \cdot 10^{-6}$ | $4.299 \cdot 10^{-7}$ |
| $b\bar{t} \rightarrow e^-\bar{\nu}_e$ | 0.001283 | 0.001283 | $-1.559 \cdot 10^{-7}$ | $3.829 \cdot 10^{-5}$ | $3.829 \cdot 10^{-5}$ | $-2.089 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $2.611 \cdot 10^{-9}$ | $2.611 \cdot 10^{-9}$ | $-7.659 \cdot 10^{-7}$ | $8.188 \cdot 10^{-15}$ | $8.188 \cdot 10^{-15}$ | $1.221 \cdot 10^{-7}$ |
| $c\bar{s} \rightarrow \tau^+\nu_\tau$ | $2.919 \cdot 10^{-8}$ | $2.919 \cdot 10^{-8}$ | $-2.398 \cdot 10^{-7}$ | $4.708 \cdot 10^{-14}$ | $4.708 \cdot 10^{-14}$ | $-2.124 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $3.193 \cdot 10^{-8}$ | $3.193 \cdot 10^{-8}$ | $-1.879 \cdot 10^{-7}$ | $5.966 \cdot 10^{-14}$ | $5.966 \cdot 10^{-14}$ | $-1.173 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $2.922 \cdot 10^{-14}$ | $2.922 \cdot 10^{-14}$ | $-4.449 \cdot 10^{-7}$ | $1.089 \cdot 10^{-25}$ | $1.089 \cdot 10^{-25}$ | $-5.511 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $4.749 \cdot 10^{-9}$ | $4.749 \cdot 10^{-9}$ | $-4.211 \cdot 10^{-8}$ | $1.003 \cdot 10^{-14}$ | $1.003 \cdot 10^{-14}$ | $1.994 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$ | $4.863 \cdot 10^{-9}$ | $4.863 \cdot 10^{-9}$ | $-6.169 \cdot 10^{-8}$ | $9.29 \cdot 10^{-15}$ | $9.29 \cdot 10^{-15}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | 0.002034 | 0.002034 | $-4.917 \cdot 10^{-8}$ | $6.464 \cdot 10^{-9}$ | $6.464 \cdot 10^{-9}$ | $-1.083 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$ | $5.357 \cdot 10^{-5}$ | $5.357 \cdot 10^{-5}$ | $-2.427 \cdot 10^{-7}$ | $2.629 \cdot 10^{-6}$ | $2.629 \cdot 10^{-6}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | 0.0001333 | 0.0001333 | $-4.5 \cdot 10^{-7}$ | $3.461 \cdot 10^{-6}$ | $3.461 \cdot 10^{-6}$ | $-3.467 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | $5.95 \cdot 10^{-5}$ | $5.95 \cdot 10^{-5}$ | $-9.917 \cdot 10^{-7}$ | $6.35 \cdot 10^{-6}$ | $6.35 \cdot 10^{-6}$ | $2.677 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $2.223 \cdot 10^{-5}$ | $2.223 \cdot 10^{-5}$ | $-9.447 \cdot 10^{-7}$ | $2.695 \cdot 10^{-6}$ | $2.695 \cdot 10^{-6}$ | $2.598 \cdot 10^{-7}$ |

| | | | | | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $t\bar{t} \rightarrow s\bar{s}$ | $8.905 \cdot 10^{-5}$ | $8.905 \cdot 10^{-5}$ | $-3.481 \cdot 10^{-7}$ | $4.609 \cdot 10^{-6}$ | $4.609 \cdot 10^{-6}$ | $4.339 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.05422 | -0.05422 | $-1.844 \cdot 10^{-8}$ | 0.008368 | 0.008368 | $1.195 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow \mu^+\nu_\mu$ | $3.068 \cdot 10^{-14}$ | $3.068 \cdot 10^{-14}$ | $-2.282 \cdot 10^{-7}$ | $1.431 \cdot 10^{-25}$ | $1.431 \cdot 10^{-25}$ | $-2.795 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $1.51 \cdot 10^{-7}$ | $1.51 \cdot 10^{-7}$ | $-1.986 \cdot 10^{-7}$ | $2.436 \cdot 10^{-13}$ | $2.436 \cdot 10^{-13}$ | $-2.053 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-4.329 \cdot 10^{-12}$ | $-4.329 \cdot 10^{-12}$ | $-2.31 \cdot 10^{-8}$ | $3.432 \cdot 10^{-23}$ | $3.432 \cdot 10^{-23}$ | $-1.748 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e\bar{\nu}_e$ | $6.708 \cdot 10^{-14}$ | $6.708 \cdot 10^{-14}$ | $-1.64 \cdot 10^{-7}$ | $4.545 \cdot 10^{-25}$ | $4.545 \cdot 10^{-25}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-1.039 \cdot 10^{-9}$ | $-1.039 \cdot 10^{-9}$ | $2.31 \cdot 10^{-6}$ | $1.604 \cdot 10^{-14}$ | $1.604 \cdot 10^{-14}$ | $5.611 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $-4.967 \cdot 10^{-13}$ | $-4.967 \cdot 10^{-13}$ | $-4.026 \cdot 10^{-8}$ | $1.242 \cdot 10^{-24}$ | $1.242 \cdot 10^{-24}$ | $3.22 \cdot 10^{-7}$ |

2.47 DeltaucdB

| | interference | | | square | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow z\bar{b}b$ | $3.398 \cdot 10^{-10}$ | $3.398 \cdot 10^{-10}$ | 0 | $4.411 \cdot 10^{-10}$ | $4.411 \cdot 10^{-10}$ | $3.401 \cdot 10^{-7}$ |
| $HH \rightarrow z\bar{d}d$ | $2.386 \cdot 10^{-25}$ | $2.386 \cdot 10^{-25}$ | $-7.124 \cdot 10^{-7}$ | $2.911 \cdot 10^{-35}$ | $2.912 \cdot 10^{-35}$ | $-1.133 \cdot 10^{-6}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $7.166 \cdot 10^{-10}$ | $7.166 \cdot 10^{-10}$ | $8.373 \cdot 10^{-8}$ | $2.49 \cdot 10^{-9}$ | $2.49 \cdot 10^{-9}$ | $-1.205 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $-1.754 \cdot 10^{-26}$ | $-1.754 \cdot 10^{-26}$ | $7.925 \cdot 10^{-6}$ | $1.062 \cdot 10^{-35}$ | $1.062 \cdot 10^{-35}$ | $-1.13 \cdot 10^{-6}$ |
| $H\gamma \rightarrow b\bar{b}$ | $-3.022 \cdot 10^{-7}$ | $-3.022 \cdot 10^{-7}$ | $6.619 \cdot 10^{-8}$ | 0.0001853 | 0.0001853 | $-1.079 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d\bar{d}$ | $-1.076 \cdot 10^{-29}$ | $-1.076 \cdot 10^{-29}$ | $-4.648 \cdot 10^{-7}$ | $3.903 \cdot 10^{-29}$ | $3.903 \cdot 10^{-29}$ | $-1.178 \cdot 10^{-6}$ |
| $H\gamma \rightarrow b\bar{b}$ | $-1.657 \cdot 10^{-5}$ | $-1.657 \cdot 10^{-5}$ | 0 | 0.0002305 | 0.0002305 | $3.905 \cdot 10^{-7}$ |
| $H\gamma \rightarrow s\bar{s}$ | $-4.44 \cdot 10^{-13}$ | $-4.44 \cdot 10^{-13}$ | $2.252 \cdot 10^{-8}$ | $6.595 \cdot 10^{-17}$ | $6.595 \cdot 10^{-17}$ | $3.488 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hb\bar{b}$ | $8.174 \cdot 10^{-11}$ | $8.174 \cdot 10^{-11}$ | $1.223 \cdot 10^{-8}$ | $6.016 \cdot 10^{-12}$ | $6.016 \cdot 10^{-12}$ | $3.491 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $1.218 \cdot 10^{-26}$ | $1.218 \cdot 10^{-26}$ | $8.951 \cdot 10^{-6}$ | $1.102 \cdot 10^{-37}$ | $1.101 \cdot 10^{-37}$ | 0.0003818 |
| $b\bar{b} \rightarrow \gamma\gamma$ | $5.22 \cdot 10^{-7}$ | $5.22 \cdot 10^{-7}$ | $3.257 \cdot 10^{-7}$ | $1.133 \cdot 10^{-6}$ | $1.133 \cdot 10^{-6}$ | $1.764 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $5.675 \cdot 10^{-7}$ | $5.675 \cdot 10^{-7}$ | $2.114 \cdot 10^{-7}$ | $1.795 \cdot 10^{-6}$ | $1.795 \cdot 10^{-6}$ | $3.343 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | $-7.742 \cdot 10^{-7}$ | $-7.742 \cdot 10^{-7}$ | $9.042 \cdot 10^{-8}$ | $2.06 \cdot 10^{-7}$ | $2.06 \cdot 10^{-7}$ | $3.398 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.0001698 | -0.0001698 | $2.356 \cdot 10^{-7}$ | $5.88 \cdot 10^{-5}$ | $5.88 \cdot 10^{-5}$ | $3.401 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow d\bar{d}$ | $-5.247 \cdot 10^{-7}$ | $-5.247 \cdot 10^{-7}$ | $-5.717 \cdot 10^{-8}$ | $4.626 \cdot 10^{-7}$ | $4.626 \cdot 10^{-7}$ | $3.459 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $2.366 \cdot 10^{-6}$ | $2.366 \cdot 10^{-6}$ | $1.691 \cdot 10^{-7}$ | $1.919 \cdot 10^{-6}$ | $1.919 \cdot 10^{-6}$ | $3.126 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $5.001 \cdot 10^{-7}$ | $5.001 \cdot 10^{-7}$ | $2.2 \cdot 10^{-7}$ | $2.004 \cdot 10^{-6}$ | $2.004 \cdot 10^{-6}$ | $3.494 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|-----------------------|------------------------|------------------------|-----------------------|
| $d\bar{d} \rightarrow c\bar{c}$ | $3.062 \cdot 10^{-22}$ | $3.062 \cdot 10^{-22}$ | $1.829 \cdot 10^{-6}$ | $2.028 \cdot 10^{-32}$ | $2.028 \cdot 10^{-32}$ | $5.424 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $3.816 \cdot 10^{-23}$ | $3.816 \cdot 10^{-23}$ | $1.73 \cdot 10^{-6}$ | $3.896 \cdot 10^{-32}$ | $3.896 \cdot 10^{-32}$ | $5.903 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $-7.876 \cdot 10^{-15}$ | $-7.876 \cdot 10^{-15}$ | $1.27 \cdot 10^{-8}$ | $8.287 \cdot 10^{-19}$ | $8.287 \cdot 10^{-19}$ | $3.499 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-1.805 \cdot 10^{-14}$ | $-1.805 \cdot 10^{-14}$ | $1.108 \cdot 10^{-7}$ | $4.041 \cdot 10^{-19}$ | $4.041 \cdot 10^{-19}$ | $3.712 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow s\bar{s}$ | $-2.483 \cdot 10^{-13}$ | $-2.482 \cdot 10^{-13}$ | $2.82 \cdot 10^{-7}$ | $1.887 \cdot 10^{-17}$ | $1.887 \cdot 10^{-17}$ | $3.709 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $-8.123 \cdot 10^{-22}$ | $-8.123 \cdot 10^{-22}$ | $3.939 \cdot 10^{-7}$ | $4.544 \cdot 10^{-32}$ | $4.544 \cdot 10^{-32}$ | $6.381 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $2.819 \cdot 10^{-14}$ | $2.819 \cdot 10^{-14}$ | $2.128 \cdot 10^{-7}$ | $3.052 \cdot 10^{-18}$ | $3.052 \cdot 10^{-18}$ | $3.604 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-8.438 \cdot 10^{-22}$ | $-8.438 \cdot 10^{-22}$ | $1.387 \cdot 10^{-6}$ | $4.122 \cdot 10^{-31}$ | $4.122 \cdot 10^{-31}$ | $5.58 \cdot 10^{-7}$ |

2.48 DeltaucdG

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.0004208 | -0.0004208 | 0 | 0.0001816 | 0.0001816 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | -0.0001103 | -0.0001103 | 0 | $1.524 \cdot 10^{-5}$ | $1.524 \cdot 10^{-5}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-8.521 \cdot 10^{-5}$ | $-8.521 \cdot 10^{-5}$ | $3.521 \cdot 10^{-8}$ | $2.101 \cdot 10^{-5}$ | $2.101 \cdot 10^{-5}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | -0.0001103 | -0.0001103 | 0 | $1.526 \cdot 10^{-5}$ | $1.526 \cdot 10^{-5}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-2.152 \cdot 10^{-20}$ | $-2.152 \cdot 10^{-20}$ | 0 | $6.231 \cdot 10^{-31}$ | $6.231 \cdot 10^{-31}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-2.951 \cdot 10^{-12}$ | $-2.951 \cdot 10^{-12}$ | 0 | $2.243 \cdot 10^{-17}$ | $2.243 \cdot 10^{-17}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $-2.748 \cdot 10^{-9}$ | $-2.748 \cdot 10^{-9}$ | $-3.64 \cdot 10^{-8}$ | $2.537 \cdot 10^{-13}$ | $2.537 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-2.411 \cdot 10^{-20}$ | $-2.411 \cdot 10^{-20}$ | 0 | $4.071 \cdot 10^{-31}$ | $4.071 \cdot 10^{-31}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-3.306 \cdot 10^{-12}$ | $-3.306 \cdot 10^{-12}$ | 0 | $2.676 \cdot 10^{-17}$ | $2.676 \cdot 10^{-17}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.363 \cdot 10^{-20}$ | $-2.363 \cdot 10^{-20}$ | 0 | $5.957 \cdot 10^{-30}$ | $5.957 \cdot 10^{-30}$ | 0 |

2.49 DeltaucdH

| | interference | | | square | | |
|----------------------------|--------------------|--------------------|---------------|-----------------------|-----------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow Hb\bar{b}$ | $-5 \cdot 10^{-9}$ | $-5 \cdot 10^{-9}$ | 0 | $1.691 \cdot 10^{-9}$ | $1.691 \cdot 10^{-9}$ | 0 |

| | | | | | | |
|------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $HH \rightarrow Hs\bar{s}$ | $-1.29 \cdot 10^{-16}$ | $-1.29 \cdot 10^{-16}$ | 0 | $4.787 \cdot 10^{-21}$ | $4.787 \cdot 10^{-21}$ | 0 |
| $HH \rightarrow W^+\bar{t}b$ | $-4.813 \cdot 10^{-9}$ | $-4.813 \cdot 10^{-9}$ | $-2.701 \cdot 10^{-7}$ | $8.347 \cdot 10^{-10}$ | $8.347 \cdot 10^{-10}$ | $-8.387 \cdot 10^{-8}$ |
| $HH \rightarrow W^-u\bar{d}$ | $-8.253 \cdot 10^{-25}$ | $-8.253 \cdot 10^{-25}$ | $-4.847 \cdot 10^{-8}$ | $2.107 \cdot 10^{-35}$ | $2.107 \cdot 10^{-35}$ | $-4.745 \cdot 10^{-8}$ |
| $HH \rightarrow z\bar{b}b$ | $-2.357 \cdot 10^{-9}$ | $-2.357 \cdot 10^{-9}$ | $-1.188 \cdot 10^{-6}$ | $1.591 \cdot 10^{-9}$ | $1.591 \cdot 10^{-9}$ | $-1.886 \cdot 10^{-7}$ |
| $HH \rightarrow z\bar{d}\bar{d}$ | $-2.209 \cdot 10^{-25}$ | $-2.209 \cdot 10^{-25}$ | $-1.358 \cdot 10^{-7}$ | $3.215 \cdot 10^{-35}$ | $3.215 \cdot 10^{-35}$ | $-9.331 \cdot 10^{-8}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-1.781 \cdot 10^{-9}$ | $-1.781 \cdot 10^{-9}$ | $1.684 \cdot 10^{-7}$ | $5.459 \cdot 10^{-11}$ | $5.459 \cdot 10^{-11}$ | $1.832 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $1.985 \cdot 10^{-24}$ | $1.985 \cdot 10^{-24}$ | $3.023 \cdot 10^{-7}$ | $6.709 \cdot 10^{-35}$ | $6.709 \cdot 10^{-35}$ | $2.832 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $-6.022 \cdot 10^{-21}$ | $-6.022 \cdot 10^{-21}$ | $-1.162 \cdot 10^{-7}$ | $1.075 \cdot 10^{-30}$ | $1.075 \cdot 10^{-30}$ | 0 |
| $HW^- \rightarrow \bar{t}b$ | 0.0001097 | 0.0001097 | $9.118 \cdot 10^{-8}$ | $3.517 \cdot 10^{-5}$ | $3.517 \cdot 10^{-5}$ | 0 |
| $H\gamma \rightarrow b\bar{b}$ | $-1.008 \cdot 10^{-5}$ | $-1.008 \cdot 10^{-5}$ | $2.977 \cdot 10^{-7}$ | $3.008 \cdot 10^{-7}$ | $3.008 \cdot 10^{-7}$ | $2.66 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d\bar{d}$ | $-4.605 \cdot 10^{-21}$ | $-4.605 \cdot 10^{-21}$ | $2.606 \cdot 10^{-7}$ | $2.148 \cdot 10^{-32}$ | $2.148 \cdot 10^{-32}$ | $2.327 \cdot 10^{-7}$ |
| $H z \rightarrow b\bar{b}$ | $1.119 \cdot 10^{-7}$ | $1.119 \cdot 10^{-7}$ | $2.654 \cdot 10^{-5}$ | $3.417 \cdot 10^{-5}$ | $3.417 \cdot 10^{-5}$ | 0 |
| $H z \rightarrow s\bar{s}$ | $-7.735 \cdot 10^{-14}$ | $-7.735 \cdot 10^{-14}$ | $-1.138 \cdot 10^{-6}$ | $4.953 \cdot 10^{-17}$ | $4.953 \cdot 10^{-17}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $8.209 \cdot 10^{-10}$ | $8.209 \cdot 10^{-10}$ | $-7.309 \cdot 10^{-8}$ | $3.081 \cdot 10^{-11}$ | $3.081 \cdot 10^{-11}$ | $3.245 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $1.016 \cdot 10^{-17}$ | $1.016 \cdot 10^{-17}$ | $-9.841 \cdot 10^{-8}$ | $8.818 \cdot 10^{-30}$ | $8.818 \cdot 10^{-30}$ | $-2.268 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow H\bar{d}d$ | $-3.467 \cdot 10^{-26}$ | $-3.467 \cdot 10^{-26}$ | $-1.154 \cdot 10^{-7}$ | $1.086 \cdot 10^{-36}$ | $1.086 \cdot 10^{-36}$ | 0 |
| $W^+W^- \rightarrow H\bar{t}t$ | $2.812 \cdot 10^{-10}$ | $2.812 \cdot 10^{-10}$ | $-7.112 \cdot 10^{-8}$ | $4.017 \cdot 10^{-14}$ | $4.017 \cdot 10^{-14}$ | 0 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $-2.178 \cdot 10^{-12}$ | $-2.178 \cdot 10^{-12}$ | 0 | $6.505 \cdot 10^{-14}$ | $6.505 \cdot 10^{-14}$ | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | 0.0001178 | 0.0001178 | 0 | $2.719 \cdot 10^{-9}$ | $2.719 \cdot 10^{-9}$ | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | $-1.273 \cdot 10^{-14}$ | $-1.273 \cdot 10^{-14}$ | 0 | $3.813 \cdot 10^{-16}$ | $3.813 \cdot 10^{-16}$ | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | $-1.005 \cdot 10^{-5}$ | $-1.005 \cdot 10^{-5}$ | 0 | $4.595 \cdot 10^{-7}$ | $4.595 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-2.744 \cdot 10^{-15}$ | $-2.744 \cdot 10^{-15}$ | 0 | $8.156 \cdot 10^{-17}$ | $8.156 \cdot 10^{-17}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.839 \cdot 10^{-25}$ | $-1.839 \cdot 10^{-25}$ | 0 | $8.6 \cdot 10^{-37}$ | $8.6 \cdot 10^{-37}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $-9.999 \cdot 10^{-33}$ | $-9.999 \cdot 10^{-33}$ | 0 | $4.641 \cdot 10^{-44}$ | $4.641 \cdot 10^{-44}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $-3.405 \cdot 10^{-22}$ | $-3.405 \cdot 10^{-22}$ | 0 | $5.512 \cdot 10^{-28}$ | $5.512 \cdot 10^{-28}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | $1.219 \cdot 10^{-9}$ | $1.219 \cdot 10^{-9}$ | 0 | $8.95 \cdot 10^{-25}$ | $8.95 \cdot 10^{-25}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-3.228 \cdot 10^{-21}$ | $-3.228 \cdot 10^{-21}$ | 0 | $1.498 \cdot 10^{-32}$ | $1.498 \cdot 10^{-32}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-4.418 \cdot 10^{-13}$ | $-4.418 \cdot 10^{-13}$ | 0 | $7.099 \cdot 10^{-19}$ | $7.099 \cdot 10^{-19}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.299 \cdot 10^{-31}$ | $-2.299 \cdot 10^{-31}$ | $4.349 \cdot 10^{-8}$ | $2.187 \cdot 10^{-42}$ | $2.187 \cdot 10^{-42}$ | 0 |

2.50 DeltaucdW

| | interference | | | square | | |
|---|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow W^+ \bar{t}b$ | $-1.093 \cdot 10^{-9}$ | $-1.093 \cdot 10^{-9}$ | $-6.405 \cdot 10^{-7}$ | $1.893 \cdot 10^{-8}$ | $1.893 \cdot 10^{-8}$ | $-5.283 \cdot 10^{-8}$ |
| $HH \rightarrow W^- u \bar{d}$ | $7.368 \cdot 10^{-26}$ | $7.368 \cdot 10^{-26}$ | $1.384 \cdot 10^{-6}$ | $3.434 \cdot 10^{-35}$ | $3.434 \cdot 10^{-35}$ | $-8.736 \cdot 10^{-8}$ |
| $HH \rightarrow z \bar{b}b$ | $6.156 \cdot 10^{-10}$ | $6.156 \cdot 10^{-10}$ | $-2.437 \cdot 10^{-7}$ | $1.447 \cdot 10^{-9}$ | $1.447 \cdot 10^{-9}$ | $-1.382 \cdot 10^{-7}$ |
| $HH \rightarrow z d \bar{d}$ | $4.323 \cdot 10^{-25}$ | $4.323 \cdot 10^{-25}$ | $-8.559 \cdot 10^{-7}$ | $9.554 \cdot 10^{-35}$ | $9.554 \cdot 10^{-35}$ | $-1.204 \cdot 10^{-6}$ |
| $HW^+ \rightarrow \gamma t \bar{b}$ | $-1.556 \cdot 10^{-10}$ | $-1.556 \cdot 10^{-10}$ | $4.499 \cdot 10^{-7}$ | $7.264 \cdot 10^{-10}$ | $7.264 \cdot 10^{-10}$ | $3.166 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u \bar{d}$ | $2.947 \cdot 10^{-26}$ | $2.947 \cdot 10^{-26}$ | $-5.09 \cdot 10^{-7}$ | $1.594 \cdot 10^{-35}$ | $1.594 \cdot 10^{-35}$ | $-1.883 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u \bar{d}$ | $-6.69 \cdot 10^{-21}$ | $-6.69 \cdot 10^{-21}$ | $-1.644 \cdot 10^{-7}$ | $3.461 \cdot 10^{-29}$ | $3.461 \cdot 10^{-29}$ | 0 |
| $HW^- \rightarrow \bar{t}b$ | $8.72 \cdot 10^{-5}$ | $8.72 \cdot 10^{-5}$ | $-1.147 \cdot 10^{-8}$ | 0.0006427 | 0.0006427 | 0 |
| $H\gamma \rightarrow b \bar{b}$ | $1.668 \cdot 10^{-7}$ | $1.668 \cdot 10^{-7}$ | $2.997 \cdot 10^{-7}$ | $5.646 \cdot 10^{-5}$ | $5.646 \cdot 10^{-5}$ | $3.542 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d \bar{d}$ | $5.939 \cdot 10^{-30}$ | $5.939 \cdot 10^{-30}$ | $-4.546 \cdot 10^{-7}$ | $1.19 \cdot 10^{-29}$ | $1.19 \cdot 10^{-29}$ | $-1.177 \cdot 10^{-6}$ |
| $H z \rightarrow b \bar{b}$ | $-3.003 \cdot 10^{-5}$ | $-3.003 \cdot 10^{-5}$ | $-1.998 \cdot 10^{-7}$ | 0.0007562 | 0.0007562 | $-1.058 \cdot 10^{-7}$ |
| $H z \rightarrow s \bar{s}$ | $-8.044 \cdot 10^{-13}$ | $-8.044 \cdot 10^{-13}$ | $-2.238 \cdot 10^{-7}$ | $2.164 \cdot 10^{-16}$ | $2.164 \cdot 10^{-16}$ | $-9.242 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H b \bar{b}$ | $1.192 \cdot 10^{-9}$ | $1.192 \cdot 10^{-9}$ | $-3.355 \cdot 10^{-7}$ | $1.973 \cdot 10^{-9}$ | $1.973 \cdot 10^{-9}$ | $-5.069 \cdot 10^{-8}$ |
| $W^+ W^- \rightarrow H c \bar{c}$ | $-1.13 \cdot 10^{-17}$ | $-1.13 \cdot 10^{-17}$ | $-1.77 \cdot 10^{-7}$ | $1.361 \cdot 10^{-27}$ | $1.361 \cdot 10^{-27}$ | 0 |
| $W^+ W^- \rightarrow H d \bar{d}$ | $-2.051 \cdot 10^{-25}$ | $-2.051 \cdot 10^{-25}$ | $-2.926 \cdot 10^{-7}$ | $3.443 \cdot 10^{-35}$ | $3.443 \cdot 10^{-35}$ | $-1.133 \cdot 10^{-6}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | $-3.054 \cdot 10^{-9}$ | $-3.054 \cdot 10^{-9}$ | $-6.549 \cdot 10^{-8}$ | $5.372 \cdot 10^{-12}$ | $5.372 \cdot 10^{-12}$ | $1.862 \cdot 10^{-8}$ |
| $\bar{b}t \rightarrow \bar{d}u$ | $-9.456 \cdot 10^{-6}$ | $-9.456 \cdot 10^{-6}$ | $-1.692 \cdot 10^{-7}$ | $1.462 \cdot 10^{-7}$ | $1.462 \cdot 10^{-7}$ | $-1.368 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow \gamma \gamma$ | $-2.882 \cdot 10^{-7}$ | $-2.882 \cdot 10^{-7}$ | $5.552 \cdot 10^{-7}$ | $3.454 \cdot 10^{-7}$ | $3.454 \cdot 10^{-7}$ | $6.08 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow \mu^+ \mu^-$ | $-8.148 \cdot 10^{-7}$ | $-8.148 \cdot 10^{-7}$ | $-1.105 \cdot 10^{-7}$ | $1.187 \cdot 10^{-6}$ | $1.187 \cdot 10^{-6}$ | $-8.426 \cdot 10^{-8}$ |
| $b \bar{b} \rightarrow \nu_e \bar{\nu}_e$ | $-1.402 \cdot 10^{-6}$ | $-1.402 \cdot 10^{-6}$ | $-1.426 \cdot 10^{-7}$ | $6.759 \cdot 10^{-7}$ | $6.759 \cdot 10^{-7}$ | $-1.036 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow b \bar{b}$ | 0.001187 | 0.001187 | $-8.425 \cdot 10^{-8}$ | 0.0003324 | 0.0003324 | $-9.026 \cdot 10^{-8}$ |
| $b \bar{b} \rightarrow d \bar{d}$ | $-3.587 \cdot 10^{-6}$ | $-3.587 \cdot 10^{-6}$ | $-1.394 \cdot 10^{-7}$ | $2.739 \cdot 10^{-6}$ | $2.739 \cdot 10^{-6}$ | $-1.095 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow t \bar{t}$ | -0.0001352 | -0.0001352 | $-7.395 \cdot 10^{-8}$ | $7.85 \cdot 10^{-5}$ | $7.85 \cdot 10^{-5}$ | $-1.019 \cdot 10^{-7}$ |
| $b \bar{b} \rightarrow u \bar{u}$ | $-2.117 \cdot 10^{-6}$ | $-2.117 \cdot 10^{-6}$ | $-1.417 \cdot 10^{-7}$ | $3.515 \cdot 10^{-6}$ | $3.515 \cdot 10^{-6}$ | $-1.138 \cdot 10^{-7}$ |
| $b \bar{t} \rightarrow e^- \bar{\nu}_e$ | $-3.031 \cdot 10^{-6}$ | $-3.031 \cdot 10^{-6}$ | $-1.649 \cdot 10^{-7}$ | $4.081 \cdot 10^{-7}$ | $4.081 \cdot 10^{-7}$ | $-9.801 \cdot 10^{-8}$ |
| $c \bar{s} \rightarrow \tau^+ \nu_\tau$ | $-7.547 \cdot 10^{-14}$ | $-7.547 \cdot 10^{-14}$ | $-1.59 \cdot 10^{-7}$ | $1.355 \cdot 10^{-18}$ | $1.355 \cdot 10^{-18}$ | $-1.476 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $d\bar{d} \rightarrow c\bar{c}$ | $-8.205 \cdot 10^{-22}$ | $-8.205 \cdot 10^{-22}$ | $-4.997 \cdot 10^{-7}$ | $3.558 \cdot 10^{-32}$ | $3.558 \cdot 10^{-32}$ | $-5.34 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow e^+e^-$ | $-1.112 \cdot 10^{-22}$ | $-1.112 \cdot 10^{-22}$ | $-2.699 \cdot 10^{-7}$ | $2.576 \cdot 10^{-32}$ | $2.576 \cdot 10^{-32}$ | $-9.703 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | $-4.422 \cdot 10^{-14}$ | $-4.422 \cdot 10^{-14}$ | $-2.035 \cdot 10^{-7}$ | $4.907 \cdot 10^{-18}$ | $4.907 \cdot 10^{-18}$ | $-1.223 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-3.271 \cdot 10^{-14}$ | $-3.271 \cdot 10^{-14}$ | $-1.223 \cdot 10^{-7}$ | $1.326 \cdot 10^{-18}$ | $1.326 \cdot 10^{-18}$ | $-1.508 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow s\bar{s}$ | $2.394 \cdot 10^{-12}$ | $2.394 \cdot 10^{-12}$ | $-8.354 \cdot 10^{-8}$ | $1.108 \cdot 10^{-16}$ | $1.108 \cdot 10^{-16}$ | $-1.806 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | $4.68 \cdot 10^{-22}$ | $4.68 \cdot 10^{-22}$ | $-1.026 \cdot 10^{-6}$ | $7.666 \cdot 10^{-32}$ | $7.666 \cdot 10^{-32}$ | $-6 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | $-7.348 \cdot 10^{-14}$ | $-7.348 \cdot 10^{-14}$ | $-1.361 \cdot 10^{-7}$ | $5.209 \cdot 10^{-18}$ | $5.209 \cdot 10^{-18}$ | $-1.152 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow \mu^+\nu_\mu$ | $-5.26 \cdot 10^{-22}$ | $-5.26 \cdot 10^{-22}$ | $-1.521 \cdot 10^{-7}$ | $3.721 \cdot 10^{-32}$ | $3.721 \cdot 10^{-32}$ | $-1.075 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $-4.944 \cdot 10^{-14}$ | $-4.944 \cdot 10^{-14}$ | $-1.618 \cdot 10^{-7}$ | $6.536 \cdot 10^{-18}$ | $6.536 \cdot 10^{-18}$ | $-1.071 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $2.121 \cdot 10^{-20}$ | $2.121 \cdot 10^{-20}$ | $-9.429 \cdot 10^{-8}$ | $7.531 \cdot 10^{-31}$ | $7.531 \cdot 10^{-31}$ | $-4.116 \cdot 10^{-7}$ |

2.51 Deltaucledq

| | interference | | | square | | |
|---------------------------------------|-------------------------|-------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | $-7.02 \cdot 10^{-11}$ | $-7.02 \cdot 10^{-11}$ | 0 | $3.43 \cdot 10^{-11}$ | $3.43 \cdot 10^{-11}$ | 0 |
| $b\bar{t} \rightarrow e^-\bar{\nu}_e$ | $-8.438 \cdot 10^{-16}$ | $-8.438 \cdot 10^{-16}$ | 0 | $4.012 \cdot 10^{-16}$ | $4.012 \cdot 10^{-16}$ | 0 |
| $c\bar{s} \rightarrow \tau^+\nu_\tau$ | $-2.649 \cdot 10^{-16}$ | $-2.649 \cdot 10^{-16}$ | 0 | $7.013 \cdot 10^{-21}$ | $7.013 \cdot 10^{-21}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $-3.198 \cdot 10^{-31}$ | $-3.198 \cdot 10^{-31}$ | 0 | $2.447 \cdot 10^{-41}$ | $2.447 \cdot 10^{-41}$ | 0 |
| $u\bar{d} \rightarrow \mu^+\nu_\mu$ | $-6.828 \cdot 10^{-27}$ | $-6.828 \cdot 10^{-27}$ | 0 | $5.232 \cdot 10^{-37}$ | $5.232 \cdot 10^{-37}$ | 0 |

2.52 Deltauclequ1

| | interference | | | square | | |
|---------------------------------------|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{t} \rightarrow e^-\bar{\nu}_e$ | $1.386 \cdot 10^{-12}$ | $1.386 \cdot 10^{-12}$ | 0 | $6.853 \cdot 10^{-13}$ | $6.853 \cdot 10^{-13}$ | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $3.507 \cdot 10^{-16}$ | $3.507 \cdot 10^{-16}$ | 0 | $9.248 \cdot 10^{-21}$ | $9.248 \cdot 10^{-21}$ | 0 |
| $c\bar{s} \rightarrow \tau^+\nu_\tau$ | $4.913 \cdot 10^{-14}$ | $4.913 \cdot 10^{-14}$ | 0 | $1.308 \cdot 10^{-18}$ | $1.308 \cdot 10^{-18}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | $3.336 \cdot 10^{-5}$ | $3.336 \cdot 10^{-5}$ | 0 | $1.659 \cdot 10^{-5}$ | $1.659 \cdot 10^{-5}$ | 0 |

| | | | | | | |
|--------------------------------------|------------------------|------------------------|---|------------------------|------------------------|---|
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $1.457 \cdot 10^{-27}$ | $1.457 \cdot 10^{-27}$ | 0 | $1.119 \cdot 10^{-37}$ | $1.119 \cdot 10^{-37}$ | 0 |
|--------------------------------------|------------------------|------------------------|---|------------------------|------------------------|---|

2.53 Deltauclequ3

| | interference | | | square | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | $-4.902 \cdot 10^{-12}$ | $-4.902 \cdot 10^{-12}$ | 0 | $9.162 \cdot 10^{-12}$ | $9.162 \cdot 10^{-12}$ | 0 |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $1.02 \cdot 10^{-15}$ | $1.02 \cdot 10^{-15}$ | 0 | $7.452 \cdot 10^{-20}$ | $7.452 \cdot 10^{-20}$ | 0 |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $-1.478 \cdot 10^{-13}$ | $-1.478 \cdot 10^{-13}$ | 0 | $1.277 \cdot 10^{-17}$ | $1.277 \cdot 10^{-17}$ | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | $-7.541 \cdot 10^{-5}$ | $-7.541 \cdot 10^{-5}$ | $-1.326 \cdot 10^{-8}$ | 0.0001039 | 0.0001039 | 0 |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $-3.919 \cdot 10^{-27}$ | $-3.919 \cdot 10^{-27}$ | 0 | $8.824 \cdot 10^{-37}$ | $8.824 \cdot 10^{-37}$ | 0 |

2.54 Deltauclq1

| | interference | | | square | | |
|--|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | 0.01281 | 0.01281 | $-1.562 \cdot 10^{-7}$ | 0.0664 | 0.0664 | 0 |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | -0.0003767 | -0.0003767 | $-5.309 \cdot 10^{-8}$ | 0.001589 | 0.001589 | 0 |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $-7.907 \cdot 10^{-7}$ | $-7.907 \cdot 10^{-7}$ | $-6.324 \cdot 10^{-8}$ | $1.81 \cdot 10^{-10}$ | $1.81 \cdot 10^{-10}$ | 0 |
| $d\bar{d} \rightarrow e^+ e^-$ | $6.473 \cdot 10^{-12}$ | $6.473 \cdot 10^{-12}$ | $-1.699 \cdot 10^{-7}$ | $5.246 \cdot 10^{-21}$ | $5.246 \cdot 10^{-21}$ | 0 |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | $-5.799 \cdot 10^{-7}$ | $-5.799 \cdot 10^{-7}$ | $-6.897 \cdot 10^{-8}$ | $1.321 \cdot 10^{-10}$ | $1.321 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | 0.006389 | 0.006389 | $-2.348 \cdot 10^{-7}$ | 0.03739 | 0.03739 | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | -0.03285 | -0.03285 | $-6.089 \cdot 10^{-8}$ | 0.1356 | 0.1356 | 0 |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $8 \cdot 10^{-12}$ | $8 \cdot 10^{-12}$ | $-1.625 \cdot 10^{-7}$ | $6.465 \cdot 10^{-21}$ | $6.465 \cdot 10^{-21}$ | 0 |

2.55 Deltauclq3

| | |
|--------------|--------|
| interference | square |
|--------------|--------|

| | mod1 | mod2 | 1 − mod2/mod1 | mod1 | mod2 | 1 − mod2/mod1 |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|---------------|
| $b\bar{b} \rightarrow \mu^+\mu^-$ | 0.01273 | 0.01273 | $-1.571 \cdot 10^{-7}$ | 0.06598 | 0.06598 | 0 |
| $b\bar{b} \rightarrow \nu_e\bar{\nu}_e$ | 0.05303 | 0.05303 | $-5.658 \cdot 10^{-8}$ | 0.2236 | 0.2236 | 0 |
| $b\bar{t} \rightarrow e^-\bar{\nu}_e$ | 0.2541 | 0.2541 | $-1.181 \cdot 10^{-7}$ | 1.182 | 1.182 | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $8.688 \cdot 10^{-8}$ | $8.688 \cdot 10^{-8}$ | $-6.906 \cdot 10^{-8}$ | $1.989 \cdot 10^{-11}$ | $1.989 \cdot 10^{-11}$ | 0 |
| $c\bar{s} \rightarrow \tau^+\nu_\tau$ | $1.191 \cdot 10^{-5}$ | $1.191 \cdot 10^{-5}$ | $-1.68 \cdot 10^{-7}$ | $2.994 \cdot 10^{-9}$ | $2.994 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $5.089 \cdot 10^{-13}$ | $5.089 \cdot 10^{-13}$ | $-1.768 \cdot 10^{-7}$ | $4.124 \cdot 10^{-22}$ | $4.124 \cdot 10^{-22}$ | 0 |
| $s\bar{s} \rightarrow \nu_\tau\bar{\nu}_\tau$ | $2.299 \cdot 10^{-6}$ | $2.299 \cdot 10^{-6}$ | $-4.349 \cdot 10^{-8}$ | $5.239 \cdot 10^{-10}$ | $5.239 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow \nu_\mu\bar{\nu}_\mu$ | 0.0008144 | 0.0008144 | $-6.876 \cdot 10^{-7}$ | 0.008572 | 0.008572 | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | 0.05004 | 0.05004 | $-5.996 \cdot 10^{-8}$ | 0.2084 | 0.2084 | 0 |
| $u\bar{d} \rightarrow \mu^+\nu_\mu$ | $3.145 \cdot 10^{-11}$ | $3.145 \cdot 10^{-11}$ | $-9.54 \cdot 10^{-8}$ | $2.288 \cdot 10^{-20}$ | $2.288 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow \nu_e\bar{\nu}_e$ | $7.045 \cdot 10^{-13}$ | $7.045 \cdot 10^{-13}$ | $-1.561 \cdot 10^{-7}$ | $5.693 \cdot 10^{-22}$ | $5.693 \cdot 10^{-22}$ | 0 |

2.56 Deltaucqe

| | interference | | | square | | |
|-------------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 − mod2/mod1 | mod1 | mod2 | 1 − mod2/mod1 |
| $b\bar{b} \rightarrow \mu^+\mu^-$ | −0.004301 | −0.004301 | $3.487 \cdot 10^{-7}$ | 0.0971 | 0.0971 | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-5.44 \cdot 10^{-7}$ | $-5.44 \cdot 10^{-7}$ | $3.676 \cdot 10^{-7}$ | $6.897 \cdot 10^{-10}$ | $6.897 \cdot 10^{-10}$ | 0 |
| $d\bar{d} \rightarrow e^+e^-$ | $-1.332 \cdot 10^{-12}$ | $-1.332 \cdot 10^{-12}$ | $3.003 \cdot 10^{-7}$ | $4.7 \cdot 10^{-21}$ | $4.7 \cdot 10^{-21}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | −0.002386 | −0.002386 | $3.772 \cdot 10^{-7}$ | 0.01662 | 0.01662 | 0 |

2.57 Deltaucqq1

| | interference | | | square | | |
|---------------------------------|--------------|---------|------------------------|--------|--------|---------------|
| | mod1 | mod2 | 1 − mod2/mod1 | mod1 | mod2 | 1 − mod2/mod1 |
| $b\bar{b} \rightarrow b\bar{b}$ | −35.76 | −35.76 | $-2.797 \cdot 10^{-8}$ | 8.946 | 8.946 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.12 | 0.12 | $-8.335 \cdot 10^{-8}$ | 0.5394 | 0.5394 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | −0.4398 | −0.4398 | $-9.094 \cdot 10^{-8}$ | 1.356 | 1.356 | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---|
| $b\bar{b} \rightarrow u\bar{u}$ | -0.03583 | -0.03583 | $-1.396 \cdot 10^{-7}$ | 0.1725 | 0.1725 | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-9.032 \cdot 10^{-6}$ | $-9.032 \cdot 10^{-6}$ | $-1.329 \cdot 10^{-7}$ | $2.351 \cdot 10^{-9}$ | $2.351 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $1.659 \cdot 10^{-6}$ | $1.659 \cdot 10^{-6}$ | $-1.206 \cdot 10^{-7}$ | $4.03 \cdot 10^{-10}$ | $4.03 \cdot 10^{-10}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0001651 | -0.0001651 | 0 | $1.39 \cdot 10^{-8}$ | $1.39 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.07576 | 0.07576 | $-7.919 \cdot 10^{-8}$ | 0.3378 | 0.3378 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.1248 | -0.1248 | $-8.011 \cdot 10^{-8}$ | 0.6053 | 0.6053 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.05032 | -0.05032 | $-1.391 \cdot 10^{-7}$ | 0.2464 | 0.2464 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -10.43 | -10.43 | 0 | 20.62 | 20.62 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $8.027 \cdot 10^{-11}$ | $8.027 \cdot 10^{-11}$ | $-1.246 \cdot 10^{-7}$ | $3.682 \cdot 10^{-20}$ | $3.682 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $4.012 \cdot 10^{-6}$ | $4.012 \cdot 10^{-6}$ | $-9.97 \cdot 10^{-8}$ | $9.772 \cdot 10^{-10}$ | $9.772 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-4.056 \cdot 10^{-10}$ | $-4.056 \cdot 10^{-10}$ | $-2.465 \cdot 10^{-8}$ | $1.089 \cdot 10^{-19}$ | $1.089 \cdot 10^{-19}$ | 0 |

2.58 Deltaucqq11

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $\bar{b}t \rightarrow \bar{d}u$ | 0.1375 | 0.1375 | $-1.454 \cdot 10^{-7}$ | 0.9598 | 0.9598 | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -35.76 | -35.76 | $-2.797 \cdot 10^{-8}$ | 8.946 | 8.946 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.7614 | 0.7614 | $-1.313 \cdot 10^{-8}$ | 0.5394 | 0.5394 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.4398 | -0.4398 | $-9.094 \cdot 10^{-8}$ | 1.356 | 1.356 | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $1.053 \cdot 10^{-5}$ | $1.053 \cdot 10^{-5}$ | 0 | $4.03 \cdot 10^{-10}$ | $4.03 \cdot 10^{-10}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.0001651 | -0.0001651 | 0 | $1.39 \cdot 10^{-8}$ | $1.39 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.5157 | 0.5157 | 0 | 0.3378 | 0.3378 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -10.43 | -10.43 | 0 | 20.62 | 20.62 | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $2.839 \cdot 10^{-7}$ | $2.839 \cdot 10^{-7}$ | $-1.057 \cdot 10^{-7}$ | $1.071 \cdot 10^{-10}$ | $1.071 \cdot 10^{-10}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $8.027 \cdot 10^{-11}$ | $8.027 \cdot 10^{-11}$ | $-1.121 \cdot 10^{-7}$ | $3.682 \cdot 10^{-20}$ | $3.682 \cdot 10^{-20}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $2.552 \cdot 10^{-5}$ | $2.552 \cdot 10^{-5}$ | 0 | $9.772 \cdot 10^{-10}$ | $9.772 \cdot 10^{-10}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-4.056 \cdot 10^{-10}$ | $-4.056 \cdot 10^{-10}$ | $-2.465 \cdot 10^{-8}$ | $1.089 \cdot 10^{-19}$ | $1.089 \cdot 10^{-19}$ | 0 |

2.59 Deltaucqq3

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $\bar{b}t \rightarrow \bar{d}u$ | 0.3656 | 0.3656 | $-1.094 \cdot 10^{-7}$ | 1.701 | 1.701 | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.9832 | -0.9832 | $-1.017 \cdot 10^{-8}$ | 2.887 | 2.887 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.01029 | 0.01029 | $-9.715 \cdot 10^{-8}$ | 0.04628 | 0.04628 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.4394 | 0.4394 | $3.641 \cdot 10^{-7}$ | 5.476 | 5.476 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0.009652 | 0.009652 | $-1.243 \cdot 10^{-7}$ | 0.04648 | 0.04648 | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $4.528 \cdot 10^{-6}$ | $4.528 \cdot 10^{-6}$ | $-1.325 \cdot 10^{-7}$ | $1.178 \cdot 10^{-9}$ | $1.178 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $5.849 \cdot 10^{-7}$ | $5.849 \cdot 10^{-7}$ | $-8.548 \cdot 10^{-8}$ | $1.421 \cdot 10^{-10}$ | $1.421 \cdot 10^{-10}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.1436 | -0.1436 | 0 | $3.014 \cdot 10^{-8}$ | $3.014 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.01844 | 0.01844 | $-1.085 \cdot 10^{-7}$ | 0.07942 | 0.07942 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.005306 | 0.005306 | $-1.885 \cdot 10^{-7}$ | 0.02967 | 0.02967 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.01434 | 0.01434 | $-1.395 \cdot 10^{-7}$ | 0.07316 | 0.07316 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.3524 | -0.3524 | $-2.838 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $2.355 \cdot 10^{-5}$ | $2.355 \cdot 10^{-5}$ | $-1.274 \cdot 10^{-7}$ | $5.922 \cdot 10^{-9}$ | $5.922 \cdot 10^{-9}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.146 \cdot 10^{-9}$ | $-1.146 \cdot 10^{-9}$ | 0 | $1.637 \cdot 10^{-19}$ | $1.637 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $2.957 \cdot 10^{-7}$ | $2.957 \cdot 10^{-7}$ | $-1.014 \cdot 10^{-7}$ | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.477 \cdot 10^{-11}$ | $-1.477 \cdot 10^{-11}$ | 0 | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |

2.60 Deltaucqq31

| | interference | | | square | | |
|---------------------------------|--------------|----------|------------------------|---------|---------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $\bar{b}t \rightarrow \bar{d}u$ | -0.06094 | -0.06094 | $-1.149 \cdot 10^{-7}$ | 0.4254 | 0.4254 | 0 |
| $b\bar{b} \rightarrow b\bar{b}$ | -0.9832 | -0.9832 | $-1.017 \cdot 10^{-8}$ | 2.887 | 2.887 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0.06535 | 0.06535 | 0 | 0.04628 | 0.04628 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.4394 | 0.4394 | $3.641 \cdot 10^{-7}$ | 5.476 | 5.476 | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|---|
| $b\bar{b} \rightarrow u\bar{u}$ | 0.1179 | 0.1179 | 0 | 0.1859 | 0.1859 | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $5.531 \cdot 10^{-5}$ | $5.531 \cdot 10^{-5}$ | $1.808 \cdot 10^{-8}$ | $4.713 \cdot 10^{-9}$ | $4.713 \cdot 10^{-9}$ | 0 |
| $d\bar{d} \rightarrow s\bar{s}$ | $3.712 \cdot 10^{-6}$ | $3.712 \cdot 10^{-6}$ | 0 | $1.421 \cdot 10^{-10}$ | $1.421 \cdot 10^{-10}$ | 0 |
| $s\bar{s} \rightarrow s\bar{s}$ | -0.1436 | -0.1436 | 0 | $3.014 \cdot 10^{-8}$ | $3.014 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | 0.1511 | 0.1511 | 0 | 0.07942 | 0.07942 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.1532 | 0.1532 | 0 | 0.1187 | 0.1187 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.2635 | 0.2635 | 0 | 0.2926 | 0.2926 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.3524 | -0.3524 | $-2.838 \cdot 10^{-8}$ | 4.121 | 4.121 | 0 |
| $u\bar{d} \rightarrow c\bar{s}$ | $-3.925 \cdot 10^{-6}$ | $-3.925 \cdot 10^{-6}$ | $-1.274 \cdot 10^{-7}$ | $1.48 \cdot 10^{-9}$ | $1.48 \cdot 10^{-9}$ | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.146 \cdot 10^{-9}$ | $-1.146 \cdot 10^{-9}$ | 0 | $1.637 \cdot 10^{-19}$ | $1.637 \cdot 10^{-19}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $1.882 \cdot 10^{-6}$ | $1.882 \cdot 10^{-6}$ | 0 | $7.204 \cdot 10^{-11}$ | $7.204 \cdot 10^{-11}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.477 \cdot 10^{-11}$ | $-1.477 \cdot 10^{-11}$ | 0 | $1.965 \cdot 10^{-20}$ | $1.965 \cdot 10^{-20}$ | 0 |

2.61 DeltaucuB

| | interference | | | square | | |
|------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow zc\bar{c}$ | $5.81 \cdot 10^{-15}$ | $5.81 \cdot 10^{-15}$ | $-4.131 \cdot 10^{-7}$ | $1.969 \cdot 10^{-19}$ | $1.969 \cdot 10^{-19}$ | $3.554 \cdot 10^{-7}$ |
| $HH \rightarrow zt\bar{t}$ | $-4.883 \cdot 10^{-7}$ | $-4.883 \cdot 10^{-7}$ | $-4.096 \cdot 10^{-7}$ | $1.695 \cdot 10^{-5}$ | $1.695 \cdot 10^{-5}$ | $3.539 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $1.586 \cdot 10^{-7}$ | $1.586 \cdot 10^{-7}$ | 0 | $1.913 \cdot 10^{-6}$ | $1.913 \cdot 10^{-6}$ | $-1.568 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $-2.013 \cdot 10^{-26}$ | $-2.013 \cdot 10^{-26}$ | 0 | $1.141 \cdot 10^{-35}$ | $1.141 \cdot 10^{-35}$ | $-2.63 \cdot 10^{-7}$ |
| $H\gamma \rightarrow c\bar{c}$ | $4.461 \cdot 10^{-14}$ | $4.461 \cdot 10^{-14}$ | $6.725 \cdot 10^{-8}$ | $3.113 \cdot 10^{-13}$ | $3.113 \cdot 10^{-13}$ | $-1.285 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t\bar{t}$ | 0.5077 | 0.5077 | $5.908 \cdot 10^{-8}$ | 1.497 | 1.497 | $-1.336 \cdot 10^{-7}$ |
| $H z \rightarrow t\bar{t}$ | -0.03121 | -0.03121 | $-4.166 \cdot 10^{-7}$ | 0.6356 | 0.6356 | $3.619 \cdot 10^{-7}$ |
| $H z \rightarrow u\bar{u}$ | $3.795 \cdot 10^{-22}$ | $3.795 \cdot 10^{-22}$ | $-4.216 \cdot 10^{-7}$ | $4.879 \cdot 10^{-31}$ | $4.879 \cdot 10^{-31}$ | $3.484 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $-5.527 \cdot 10^{-16}$ | $-5.527 \cdot 10^{-16}$ | $7.238 \cdot 10^{-8}$ | $1.014 \cdot 10^{-21}$ | $1.014 \cdot 10^{-21}$ | $2.958 \cdot 10^{-7}$ |
| $W^+W^- \rightarrow Ht\bar{t}$ | $1.902 \cdot 10^{-7}$ | $1.902 \cdot 10^{-7}$ | $2.103 \cdot 10^{-7}$ | $4.9 \cdot 10^{-8}$ | $4.9 \cdot 10^{-8}$ | $3.47 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.004261 | 0.004261 | $7.041 \cdot 10^{-8}$ | 0.001132 | 0.001132 | $3.535 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $1.099 \cdot 10^{-24}$ | $1.099 \cdot 10^{-24}$ | $-6.095 \cdot 10^{-6}$ | $3.883 \cdot 10^{-33}$ | $3.883 \cdot 10^{-33}$ | $3.605 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-4.663 \cdot 10^{-12}$ | $-4.663 \cdot 10^{-12}$ | $4.718 \cdot 10^{-7}$ | $2.424 \cdot 10^{-16}$ | $2.424 \cdot 10^{-16}$ | $3.713 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|-----------------------|
| $d\bar{d} \rightarrow c\bar{c}$ | $1.658 \cdot 10^{-12}$ | $1.658 \cdot 10^{-12}$ | $-6.033 \cdot 10^{-7}$ | $5.325 \cdot 10^{-17}$ | $5.325 \cdot 10^{-17}$ | $3.568 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | -0.0003088 | -0.0003088 | $9.068 \cdot 10^{-7}$ | 0.0004299 | 0.0004299 | $3.489 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | -0.003503 | -0.003503 | $3.996 \cdot 10^{-7}$ | 0.002623 | 0.002623 | $3.812 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | -0.003213 | -0.003213 | $4.046 \cdot 10^{-7}$ | 0.004059 | 0.004059 | $3.695 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.0004264 | 0.0004264 | $-7.74 \cdot 10^{-7}$ | 0.0009139 | 0.0009139 | $3.502 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.0001211 | 0.0001211 | $-2.477 \cdot 10^{-6}$ | 0.001229 | 0.001229 | $3.254 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.5091 | 0.5091 | $1.768 \cdot 10^{-7}$ | 0.1971 | 0.1971 | $3.551 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $-6.084 \cdot 10^{-23}$ | $-6.084 \cdot 10^{-23}$ | $1.644 \cdot 10^{-8}$ | $2.528 \cdot 10^{-32}$ | $2.528 \cdot 10^{-32}$ | $3.561 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $-2.052 \cdot 10^{-24}$ | $-2.052 \cdot 10^{-24}$ | $2.777 \cdot 10^{-6}$ | $1.886 \cdot 10^{-33}$ | $1.886 \cdot 10^{-33}$ | $3.712 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow c\bar{c}$ | $-9.267 \cdot 10^{-12}$ | $-9.267 \cdot 10^{-12}$ | $4.209 \cdot 10^{-7}$ | $5.366 \cdot 10^{-16}$ | $5.366 \cdot 10^{-16}$ | $3.541 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $2.176 \cdot 10^{-21}$ | $2.176 \cdot 10^{-21}$ | $1.838 \cdot 10^{-7}$ | $2.745 \cdot 10^{-31}$ | $2.745 \cdot 10^{-31}$ | $3.642 \cdot 10^{-7}$ |

2.62 DeltaucuG

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.07506 | -0.07506 | $6.662 \cdot 10^{-8}$ | 0.04044 | 0.04044 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-4.605 \cdot 10^{-21}$ | $-4.605 \cdot 10^{-21}$ | 0 | $9.958 \cdot 10^{-32}$ | $9.958 \cdot 10^{-32}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-5.503 \cdot 10^{-10}$ | $-5.503 \cdot 10^{-10}$ | 0 | $5.507 \cdot 10^{-15}$ | $5.507 \cdot 10^{-15}$ | 0 |
| $g\bar{g} \rightarrow t\bar{t}$ | -0.1267 | -0.1267 | 0 | 0.08226 | 0.08226 | 0 |
| $g\bar{g} \rightarrow u\bar{u}$ | $-2.509 \cdot 10^{-20}$ | $-2.509 \cdot 10^{-20}$ | 0 | $3.801 \cdot 10^{-31}$ | $3.801 \cdot 10^{-31}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | -0.1941 | -0.1941 | 0 | 0.03699 | 0.03699 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.1941 | -0.1941 | 0 | 0.02735 | 0.02735 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.1941 | -0.1941 | 0 | 0.03617 | 0.03617 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | -0.1483 | -0.1483 | 0 | 0.3432 | 0.3432 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-5.056 \cdot 10^{-21}$ | $-5.056 \cdot 10^{-21}$ | 0 | $1.274 \cdot 10^{-30}$ | $1.274 \cdot 10^{-30}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-5.503 \cdot 10^{-10}$ | $-5.503 \cdot 10^{-10}$ | 0 | $3.225 \cdot 10^{-15}$ | $3.225 \cdot 10^{-15}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $-1.59 \cdot 10^{-20}$ | $-1.59 \cdot 10^{-20}$ | 0 | $4.68 \cdot 10^{-31}$ | $4.68 \cdot 10^{-31}$ | 0 |

2.63 DeltaucuH

| | interference | | | square | | |
|-------------------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow Ht\bar{t}$ | $-3.978 \cdot 10^{-5}$ | $-3.978 \cdot 10^{-5}$ | 0 | $1.459 \cdot 10^{-5}$ | $1.459 \cdot 10^{-5}$ | 0 |
| $HH \rightarrow Hu\bar{u}$ | $-1.78 \cdot 10^{-25}$ | $-1.78 \cdot 10^{-25}$ | 0 | $2.442 \cdot 10^{-35}$ | $2.442 \cdot 10^{-35}$ | 0 |
| $HH \rightarrow W^+t\bar{b}$ | $1.325 \cdot 10^{-5}$ | $1.325 \cdot 10^{-5}$ | $-7.549 \cdot 10^{-8}$ | $4.745 \cdot 10^{-6}$ | $4.745 \cdot 10^{-6}$ | $-4.215 \cdot 10^{-8}$ |
| $HH \rightarrow W^-u\bar{d}$ | $-8.783 \cdot 10^{-28}$ | $-8.784 \cdot 10^{-28}$ | $-2.168 \cdot 10^{-5}$ | $5.175 \cdot 10^{-36}$ | $5.175 \cdot 10^{-36}$ | $-7.729 \cdot 10^{-8}$ |
| $HH \rightarrow zc\bar{c}$ | $-1.674 \cdot 10^{-14}$ | $-1.674 \cdot 10^{-14}$ | $-2.987 \cdot 10^{-7}$ | $5.556 \cdot 10^{-19}$ | $5.556 \cdot 10^{-19}$ | $-3.78 \cdot 10^{-7}$ |
| $HH \rightarrow zt\bar{t}$ | $-1.716 \cdot 10^{-6}$ | $-1.716 \cdot 10^{-6}$ | 0 | $8.635 \cdot 10^{-7}$ | $8.635 \cdot 10^{-7}$ | $-1.158 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $4.862 \cdot 10^{-9}$ | $4.862 \cdot 10^{-9}$ | $3.702 \cdot 10^{-7}$ | $2.851 \cdot 10^{-9}$ | $2.851 \cdot 10^{-9}$ | $2.455 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $3.778 \cdot 10^{-28}$ | $3.778 \cdot 10^{-28}$ | $1.323 \cdot 10^{-6}$ | $1.567 \cdot 10^{-37}$ | $1.567 \cdot 10^{-37}$ | $1.914 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $-3.676 \cdot 10^{-22}$ | $-3.676 \cdot 10^{-22}$ | $-1.088 \cdot 10^{-7}$ | $2.245 \cdot 10^{-31}$ | $2.245 \cdot 10^{-31}$ | 0 |
| $HW^- \rightarrow t\bar{b}$ | 0.01045 | 0.01045 | $6.697 \cdot 10^{-7}$ | 0.04715 | 0.04715 | 0 |
| $H\gamma \rightarrow c\bar{c}$ | $-2.001 \cdot 10^{-10}$ | $-2.001 \cdot 10^{-10}$ | $2.499 \cdot 10^{-7}$ | $3.227 \cdot 10^{-16}$ | $3.227 \cdot 10^{-16}$ | $2.479 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t\bar{t}$ | -0.1007 | -0.1007 | $1.986 \cdot 10^{-7}$ | 0.003005 | 0.003005 | $2.329 \cdot 10^{-7}$ |
| $H z \rightarrow t\bar{t}$ | -0.0118 | -0.0118 | $-5.086 \cdot 10^{-7}$ | 0.06379 | 0.06379 | $-1.568 \cdot 10^{-8}$ |
| $H z \rightarrow u\bar{u}$ | $-2.156 \cdot 10^{-21}$ | $-2.156 \cdot 10^{-21}$ | $-2.319 \cdot 10^{-7}$ | $2.332 \cdot 10^{-31}$ | $2.332 \cdot 10^{-31}$ | 0 |
| $W^+W^- \rightarrow Hb\bar{b}$ | $2.371 \cdot 10^{-6}$ | $2.371 \cdot 10^{-6}$ | $-4.218 \cdot 10^{-8}$ | $1.955 \cdot 10^{-7}$ | $1.955 \cdot 10^{-7}$ | $-5.116 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hc\bar{c}$ | $-3.434 \cdot 10^{-16}$ | $-3.434 \cdot 10^{-16}$ | $-2.912 \cdot 10^{-8}$ | $1.489 \cdot 10^{-20}$ | $1.489 \cdot 10^{-20}$ | $6.718 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Hd\bar{d}$ | $4.07 \cdot 10^{-27}$ | $4.07 \cdot 10^{-27}$ | $-1.474 \cdot 10^{-7}$ | $9.6 \cdot 10^{-48}$ | $9.6 \cdot 10^{-48}$ | $-2.083 \cdot 10^{-8}$ |
| $W^+W^- \rightarrow Ht\bar{t}$ | $2.853 \cdot 10^{-7}$ | $2.853 \cdot 10^{-7}$ | $7.01 \cdot 10^{-8}$ | $3.311 \cdot 10^{-7}$ | $3.311 \cdot 10^{-7}$ | $3.02 \cdot 10^{-8}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | $-1.006 \cdot 10^{-5}$ | $-1.006 \cdot 10^{-5}$ | 0 | $4.595 \cdot 10^{-7}$ | $4.595 \cdot 10^{-7}$ | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-4.277 \cdot 10^{-25}$ | $-4.277 \cdot 10^{-25}$ | 0 | $1.993 \cdot 10^{-36}$ | $1.993 \cdot 10^{-36}$ | 0 |
| $c\bar{c} \rightarrow \mu^+\mu^-$ | $-1.1 \cdot 10^{-17}$ | $-1.1 \cdot 10^{-17}$ | 0 | $1.754 \cdot 10^{-23}$ | $1.754 \cdot 10^{-23}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-6.334 \cdot 10^{-20}$ | $-6.334 \cdot 10^{-20}$ | 0 | $1.028 \cdot 10^{-25}$ | $1.028 \cdot 10^{-25}$ | 0 |
| $t\bar{t} \rightarrow \tau^+\tau^-$ | $-9.816 \cdot 10^{-7}$ | $-9.816 \cdot 10^{-7}$ | 0 | $2.958 \cdot 10^{-8}$ | $2.958 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow c\bar{c}$ | $-1.522 \cdot 10^{-6}$ | $-1.522 \cdot 10^{-6}$ | 0 | $4.534 \cdot 10^{-8}$ | $4.534 \cdot 10^{-8}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | $-2.045 \cdot 10^{-11}$ | $-2.045 \cdot 10^{-11}$ | 0 | $6.13 \cdot 10^{-13}$ | $6.13 \cdot 10^{-13}$ | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | $-8.146 \cdot 10^{-9}$ | $-8.146 \cdot 10^{-9}$ | 0 | $2.431 \cdot 10^{-10}$ | $2.431 \cdot 10^{-10}$ | 0 |

| | | | | | | |
|---------------------------------|-------------------------|-------------------------|---|------------------------|------------------------|---|
| $t\bar{t} \rightarrow t\bar{t}$ | 0.1983 | 0.1983 | 0 | 0.00906 | 0.00906 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-2.587 \cdot 10^{-31}$ | $-2.587 \cdot 10^{-31}$ | 0 | $2.222 \cdot 10^{-42}$ | $2.222 \cdot 10^{-42}$ | 0 |
| $u\bar{u} \rightarrow c\bar{c}$ | $-1.366 \cdot 10^{-20}$ | $-1.366 \cdot 10^{-20}$ | 0 | $2.199 \cdot 10^{-26}$ | $2.199 \cdot 10^{-26}$ | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | $6.262 \cdot 10^{-21}$ | $6.262 \cdot 10^{-21}$ | 0 | $4.684 \cdot 10^{-42}$ | $4.684 \cdot 10^{-42}$ | 0 |

2.64 DeltaucuW

| | interference | | | square | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow W^+ \bar{t}b$ | $-2.576 \cdot 10^{-6}$ | $-2.576 \cdot 10^{-6}$ | $8.928 \cdot 10^{-7}$ | $1.678 \cdot 10^{-5}$ | $1.678 \cdot 10^{-5}$ | 0 |
| $HH \rightarrow W^- u\bar{d}$ | $-1.271 \cdot 10^{-24}$ | $-1.271 \cdot 10^{-24}$ | $-4.72 \cdot 10^{-7}$ | $3.499 \cdot 10^{-36}$ | $3.499 \cdot 10^{-36}$ | $-4.572 \cdot 10^{-7}$ |
| $HH \rightarrow z c\bar{c}$ | $-1.396 \cdot 10^{-15}$ | $-1.396 \cdot 10^{-15}$ | $-8.596 \cdot 10^{-7}$ | $1.3 \cdot 10^{-19}$ | $1.3 \cdot 10^{-19}$ | $-7.692 \cdot 10^{-8}$ |
| $HH \rightarrow z t\bar{t}$ | $7.747 \cdot 10^{-6}$ | $7.747 \cdot 10^{-6}$ | $-6.067 \cdot 10^{-7}$ | $9.419 \cdot 10^{-5}$ | $9.419 \cdot 10^{-5}$ | $-1.062 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma t\bar{b}$ | $-1.91 \cdot 10^{-6}$ | $-1.91 \cdot 10^{-6}$ | $3.664 \cdot 10^{-7}$ | $2.589 \cdot 10^{-6}$ | $2.589 \cdot 10^{-6}$ | $3.09 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u\bar{d}$ | $8.068 \cdot 10^{-26}$ | $8.068 \cdot 10^{-26}$ | $1.983 \cdot 10^{-7}$ | $5.645 \cdot 10^{-36}$ | $5.645 \cdot 10^{-36}$ | $2.48 \cdot 10^{-7}$ |
| $HW^+ \rightarrow u\bar{d}$ | $-1.489 \cdot 10^{-21}$ | $-1.489 \cdot 10^{-21}$ | $-2.015 \cdot 10^{-7}$ | $7.028 \cdot 10^{-30}$ | $7.028 \cdot 10^{-30}$ | $-1.423 \cdot 10^{-8}$ |
| $HW^- \rightarrow \bar{t}b$ | -1.189 | -1.189 | $-8.408 \cdot 10^{-8}$ | 0.02409 | 0.02409 | $-8.301 \cdot 10^{-8}$ |
| $H\gamma \rightarrow c\bar{c}$ | $2.217 \cdot 10^{-14}$ | $2.217 \cdot 10^{-14}$ | $3.158 \cdot 10^{-7}$ | $1.054 \cdot 10^{-13}$ | $1.054 \cdot 10^{-13}$ | $3.795 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t\bar{t}$ | 0.1536 | 0.1536 | $3.256 \cdot 10^{-7}$ | 0.7496 | 0.7496 | $3.468 \cdot 10^{-7}$ |
| $H z \rightarrow t\bar{t}$ | 0.08304 | 0.08304 | $-6.382 \cdot 10^{-7}$ | 1.671 | 1.671 | $-1.197 \cdot 10^{-7}$ |
| $H z \rightarrow u\bar{u}$ | $-6.875 \cdot 10^{-22}$ | $-6.875 \cdot 10^{-22}$ | $-6.4 \cdot 10^{-7}$ | $4.109 \cdot 10^{-30}$ | $4.109 \cdot 10^{-30}$ | $-1.217 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H b\bar{b}$ | $-4.631 \cdot 10^{-6}$ | $-4.631 \cdot 10^{-6}$ | $-2.159 \cdot 10^{-7}$ | $5.114 \cdot 10^{-6}$ | $5.114 \cdot 10^{-6}$ | 0 |
| $W^+ W^- \rightarrow H c\bar{c}$ | $2.311 \cdot 10^{-15}$ | $2.311 \cdot 10^{-15}$ | 0 | $3.394 \cdot 10^{-19}$ | $3.394 \cdot 10^{-19}$ | $-1.178 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H d\bar{d}$ | $-1.4 \cdot 10^{-26}$ | $-1.4 \cdot 10^{-26}$ | $-2.142 \cdot 10^{-7}$ | $2.348 \cdot 10^{-45}$ | $2.348 \cdot 10^{-45}$ | 0 |
| $W^+ W^- \rightarrow H t\bar{t}$ | $8.05 \cdot 10^{-6}$ | $8.05 \cdot 10^{-6}$ | $-1.739 \cdot 10^{-7}$ | $5.137 \cdot 10^{-5}$ | $5.137 \cdot 10^{-5}$ | $-1.947 \cdot 10^{-8}$ |
| $\bar{b}t \rightarrow \bar{d}u$ | -0.002962 | -0.002962 | $-1.35 \cdot 10^{-7}$ | 0.007404 | 0.007404 | $-1.081 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.00507 | -0.00507 | $3.55 \cdot 10^{-7}$ | 0.06821 | 0.06821 | $-1.026 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow u\bar{u}$ | $-7.539 \cdot 10^{-23}$ | $-7.539 \cdot 10^{-23}$ | $-2.786 \cdot 10^{-7}$ | $2.348 \cdot 10^{-32}$ | $2.348 \cdot 10^{-32}$ | $-1.278 \cdot 10^{-7}$ |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | -0.002707 | -0.002707 | $-1.847 \cdot 10^{-7}$ | 0.004231 | 0.004231 | $-1.182 \cdot 10^{-7}$ |

| | | | | | | |
|--|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | $-7.368 \cdot 10^{-12}$ | $-7.368 \cdot 10^{-12}$ | $-8.143 \cdot 10^{-8}$ | $2.301 \cdot 10^{-16}$ | $2.301 \cdot 10^{-16}$ | $-1.304 \cdot 10^{-7}$ |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | $-7.508 \cdot 10^{-12}$ | $-7.508 \cdot 10^{-12}$ | $-1.731 \cdot 10^{-7}$ | $6.467 \cdot 10^{-16}$ | $6.467 \cdot 10^{-16}$ | $-1.082 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | $-1.054 \cdot 10^{-11}$ | $-1.054 \cdot 10^{-11}$ | $-2.847 \cdot 10^{-7}$ | $9.709 \cdot 10^{-16}$ | $9.709 \cdot 10^{-16}$ | $-1.03 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | -0.0002925 | -0.0002925 | $-1.47 \cdot 10^{-6}$ | 0.00233 | 0.00233 | $-8.583 \cdot 10^{-8}$ |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | -0.001188 | -0.001188 | $3.366 \cdot 10^{-7}$ | 0.0005568 | 0.0005568 | $-1.257 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | -0.002192 | -0.002192 | $4.563 \cdot 10^{-8}$ | 0.003975 | 0.003975 | $-1.258 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.002877 | -0.002877 | $-3.128 \cdot 10^{-7}$ | 0.007175 | 0.007175 | $-1.115 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.002804 | -0.002804 | $-2.853 \cdot 10^{-7}$ | 0.007147 | 0.007147 | $-1.119 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow t\bar{t}$ | 0.2175 | 0.2175 | $-9.194 \cdot 10^{-8}$ | 0.1843 | 0.1843 | $-1.085 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | $-1.222 \cdot 10^{-22}$ | $-1.222 \cdot 10^{-22}$ | $-1.636 \cdot 10^{-7}$ | $4.383 \cdot 10^{-33}$ | $4.383 \cdot 10^{-33}$ | $-1.141 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | $-4.512 \cdot 10^{-11}$ | $-4.512 \cdot 10^{-11}$ | $-1.773 \cdot 10^{-7}$ | $3.574 \cdot 10^{-16}$ | $3.574 \cdot 10^{-16}$ | $-8.394 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | $2.429 \cdot 10^{-20}$ | $2.429 \cdot 10^{-20}$ | $-4.118 \cdot 10^{-8}$ | $5.147 \cdot 10^{-31}$ | $5.147 \cdot 10^{-31}$ | $-1.166 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | $-2.046 \cdot 10^{-23}$ | $-2.046 \cdot 10^{-23}$ | $-5.377 \cdot 10^{-7}$ | $7.805 \cdot 10^{-33}$ | $7.805 \cdot 10^{-33}$ | $-1.153 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow c\bar{c}$ | $-9.638 \cdot 10^{-12}$ | $-9.638 \cdot 10^{-12}$ | $-5.188 \cdot 10^{-8}$ | $8.247 \cdot 10^{-16}$ | $8.247 \cdot 10^{-16}$ | $-1.091 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow u\bar{u}$ | $7.92 \cdot 10^{-21}$ | $7.92 \cdot 10^{-21}$ | $-8.838 \cdot 10^{-8}$ | $7.077 \cdot 10^{-31}$ | $7.077 \cdot 10^{-31}$ | $-9.892 \cdot 10^{-8}$ |

2.65 Deltaucud1

| | interference | | | square | | |
|---------------------------------|------------------------|------------------------|-----------------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | -0.01223 | -0.01223 | $3.271 \cdot 10^{-7}$ | 0.204 | 0.204 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $-1.93 \cdot 10^{-12}$ | $-1.93 \cdot 10^{-12}$ | $3.627 \cdot 10^{-7}$ | $5.206 \cdot 10^{-21}$ | $5.206 \cdot 10^{-21}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $-8.442 \cdot 10^{-7}$ | $-8.442 \cdot 10^{-7}$ | $3.554 \cdot 10^{-7}$ | $7.872 \cdot 10^{-10}$ | $7.872 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | -0.01176 | -0.01176 | $3.402 \cdot 10^{-7}$ | 0.1958 | 0.1958 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | -0.01135 | -0.01135 | $3.524 \cdot 10^{-7}$ | 0.1888 | 0.1888 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $5.205 \cdot 10^{-11}$ | $5.205 \cdot 10^{-11}$ | $3.65 \cdot 10^{-7}$ | $1.807 \cdot 10^{-20}$ | $1.807 \cdot 10^{-20}$ | 0 |

2.66 Deltaucud8

| | interference | | | square | | |
|---------------------------------|-------------------------|-------------------------|---------------|------------------------|------------------------|---------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0.269 | 0.269 | 0 | 0.08297 | 0.08297 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | $4.861 \cdot 10^{-12}$ | $4.861 \cdot 10^{-12}$ | 0 | $2.524 \cdot 10^{-22}$ | $2.524 \cdot 10^{-22}$ | 0 |
| $d\bar{d} \rightarrow c\bar{c}$ | $1.458 \cdot 10^{-5}$ | $1.458 \cdot 10^{-5}$ | 0 | $2.619 \cdot 10^{-10}$ | $2.619 \cdot 10^{-10}$ | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0.03919 | 0.03919 | 0 | 0.006593 | 0.006593 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0.06827 | 0.06827 | 0 | 0.01626 | 0.01626 | 0 |
| $u\bar{d} \rightarrow u\bar{d}$ | $-1.523 \cdot 10^{-10}$ | $-1.523 \cdot 10^{-10}$ | 0 | $2.48 \cdot 10^{-21}$ | $2.48 \cdot 10^{-21}$ | 0 |

2.67 sm

| | interference | | | square | | |
|------------------------------------|--------------|------|---------------|------------------------|------------------------|------------------------|
| | mod1 | mod2 | 1 - mod2/mod1 | mod1 | mod2 | 1 - mod2/mod1 |
| $HH \rightarrow HH$ | 0 | 0 | 0 | 0.06719 | 0.06719 | 0 |
| $HH \rightarrow HHH$ | 0 | 0 | 0 | $4.415 \cdot 10^{-8}$ | $4.415 \cdot 10^{-8}$ | 0 |
| $HH \rightarrow H\tau^+\tau^-$ | 0 | 0 | 0 | $1.03 \cdot 10^{-9}$ | $1.03 \cdot 10^{-9}$ | 0 |
| $HH \rightarrow Hb\bar{b}$ | 0 | 0 | 0 | $3.945 \cdot 10^{-9}$ | $3.945 \cdot 10^{-9}$ | 0 |
| $HH \rightarrow Hs\bar{s}$ | 0 | 0 | 0 | $9.112 \cdot 10^{-14}$ | $9.112 \cdot 10^{-14}$ | 0 |
| $HH \rightarrow Ht\bar{t}$ | 0 | 0 | 0 | $2.191 \cdot 10^{-5}$ | $2.191 \cdot 10^{-5}$ | 0 |
| $HH \rightarrow Hu\bar{u}$ | 0 | 0 | 0 | $6.973 \cdot 10^{-15}$ | $6.973 \cdot 10^{-15}$ | 0 |
| $HH \rightarrow Hzz$ | 0 | 0 | 0 | $7.801 \cdot 10^{-6}$ | $7.801 \cdot 10^{-6}$ | 0 |
| $HH \rightarrow W^+W^-$ | 0 | 0 | 0 | 0.0903 | 0.0903 | $-2.658 \cdot 10^{-7}$ |
| $HH \rightarrow W^+W^-\gamma$ | 0 | 0 | 0 | $2.645 \cdot 10^{-7}$ | $2.645 \cdot 10^{-7}$ | $1.361 \cdot 10^{-6}$ |
| $HH \rightarrow W^+\bar{t}b$ | 0 | 0 | 0 | $6.767 \cdot 10^{-6}$ | $6.767 \cdot 10^{-6}$ | $-3.842 \cdot 10^{-7}$ |
| $HH \rightarrow W^+e^-\bar{\nu}_e$ | 0 | 0 | 0 | $7.793 \cdot 10^{-8}$ | $7.793 \cdot 10^{-8}$ | $-3.208 \cdot 10^{-7}$ |
| $HH \rightarrow W^-u\bar{d}$ | 0 | 0 | 0 | $3.936 \cdot 10^{-6}$ | $3.936 \cdot 10^{-6}$ | $-4.319 \cdot 10^{-7}$ |
| $HH \rightarrow z\bar{b}b$ | 0 | 0 | 0 | $5.403 \cdot 10^{-6}$ | $5.403 \cdot 10^{-6}$ | $-9.254 \cdot 10^{-8}$ |
| $HH \rightarrow z\nu_e\bar{\nu}_e$ | 0 | 0 | 0 | $1.65 \cdot 10^{-7}$ | $1.65 \cdot 10^{-7}$ | 0 |
| $HH \rightarrow zc\bar{c}$ | 0 | 0 | 0 | $3.473 \cdot 10^{-7}$ | $3.473 \cdot 10^{-7}$ | $-1.44 \cdot 10^{-7}$ |

| | | | | | | |
|--|---|---|---|-----------------------|-----------------------|------------------------|
| $HH \rightarrow z d \bar{d}$ | 0 | 0 | 0 | $3.827 \cdot 10^{-7}$ | $3.827 \cdot 10^{-7}$ | $-1.045 \cdot 10^{-7}$ |
| $HH \rightarrow z e^+ e^-$ | 0 | 0 | 0 | $2.667 \cdot 10^{-8}$ | $2.667 \cdot 10^{-8}$ | $-3.749 \cdot 10^{-8}$ |
| $HH \rightarrow z t \bar{t}$ | 0 | 0 | 0 | 0.0001113 | 0.0001113 | 0 |
| $HH \rightarrow z z$ | 0 | 0 | 0 | 0.1247 | 0.1247 | 0 |
| $HW^+ \rightarrow \gamma t \bar{b}$ | 0 | 0 | 0 | $3.989 \cdot 10^{-6}$ | $3.989 \cdot 10^{-6}$ | $2.256 \cdot 10^{-7}$ |
| $HW^+ \rightarrow \gamma u \bar{d}$ | 0 | 0 | 0 | $2.227 \cdot 10^{-8}$ | $2.227 \cdot 10^{-8}$ | 0 |
| $HW^+ \rightarrow u \bar{d}$ | 0 | 0 | 0 | 0.02161 | 0.02161 | $-2.313 \cdot 10^{-7}$ |
| $HW^- \rightarrow \bar{t} b$ | 0 | 0 | 0 | 22.26 | 22.26 | 0 |
| $HW^- \rightarrow \gamma e^- \bar{\nu}_e$ | 0 | 0 | 0 | $5.175 \cdot 10^{-7}$ | $5.175 \cdot 10^{-7}$ | $-5.797 \cdot 10^{-8}$ |
| $HW^- \rightarrow \mu^- \bar{\nu}_\mu$ | 0 | 0 | 0 | 0.001194 | 0.001194 | $-2.513 \cdot 10^{-7}$ |
| $H\gamma \rightarrow b \bar{b}$ | 0 | 0 | 0 | 0.0002614 | 0.0002614 | $2.678 \cdot 10^{-7}$ |
| $H\gamma \rightarrow c \bar{c}$ | 0 | 0 | 0 | $2.791 \cdot 10^{-5}$ | $2.791 \cdot 10^{-5}$ | $2.15 \cdot 10^{-7}$ |
| $H\gamma \rightarrow d \bar{d}$ | 0 | 0 | 0 | $9.72 \cdot 10^{-11}$ | $9.72 \cdot 10^{-11}$ | $2.469 \cdot 10^{-7}$ |
| $H\gamma \rightarrow e^+ e^-$ | 0 | 0 | 0 | $3.41 \cdot 10^{-11}$ | $3.41 \cdot 10^{-11}$ | $2.639 \cdot 10^{-7}$ |
| $H\gamma \rightarrow t \bar{t}$ | 0 | 0 | 0 | 0.4476 | 0.4476 | $2.681 \cdot 10^{-7}$ |
| $H z \rightarrow \mu^+ \mu^-$ | 0 | 0 | 0 | 0.00246 | 0.00246 | $-4.066 \cdot 10^{-8}$ |
| $H z \rightarrow \nu_\tau \bar{\nu}_\tau$ | 0 | 0 | 0 | 0.005813 | 0.005813 | 0 |
| $H z \rightarrow b \bar{b}$ | 0 | 0 | 0 | 0.01354 | 0.01354 | $-1.477 \cdot 10^{-7}$ |
| $H z \rightarrow s \bar{s}$ | 0 | 0 | 0 | 0.006961 | 0.006961 | $-1.006 \cdot 10^{-7}$ |
| $H z \rightarrow t \bar{t}$ | 0 | 0 | 0 | 3.752 | 3.752 | 0 |
| $H z \rightarrow u \bar{u}$ | 0 | 0 | 0 | 0.008185 | 0.008185 | $-1.466 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H b \bar{b}$ | 0 | 0 | 0 | $1.41 \cdot 10^{-5}$ | $1.41 \cdot 10^{-5}$ | $-2.836 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H c \bar{c}$ | 0 | 0 | 0 | $6.692 \cdot 10^{-7}$ | $6.692 \cdot 10^{-7}$ | $-2.242 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H d \bar{d}$ | 0 | 0 | 0 | $8.918 \cdot 10^{-7}$ | $8.918 \cdot 10^{-7}$ | $-2.355 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow H t \bar{t}$ | 0 | 0 | 0 | 0.0001508 | 0.0001508 | $-2.652 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow W^+ W^-$ | 0 | 0 | 0 | 49.04 | 49.04 | $-2.651 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow \gamma \gamma$ | 0 | 0 | 0 | 0.1884 | 0.1884 | $5.307 \cdot 10^{-7}$ |
| $W^+ W^- \rightarrow \gamma \gamma \gamma$ | 0 | 0 | 0 | $1.434 \cdot 10^{-6}$ | $1.434 \cdot 10^{-6}$ | $7.67 \cdot 10^{-7}$ |
| $\bar{b} t \rightarrow \bar{d} u$ | 0 | 0 | 0 | 0.001691 | 0.001691 | $-2.366 \cdot 10^{-7}$ |

| | | | | | | |
|---|---|---|---|-----------------------|-----------------------|------------------------|
| $\gamma W^+ \rightarrow z W^+$ | 0 | 0 | 0 | 67.25 | 67.25 | $7.435 \cdot 10^{-8}$ |
| $\mu^+ \mu^- \rightarrow \tau^+ \tau^-$ | 0 | 0 | 0 | 0.03481 | 0.03481 | $3.448 \cdot 10^{-7}$ |
| $\nu_\tau \bar{\nu}_\tau \rightarrow \nu_\tau \bar{\nu}_\tau$ | 0 | 0 | 0 | 0.0005637 | 0.0005637 | 0 |
| $\nu_e \bar{\nu}_e \rightarrow \nu_\mu \bar{\nu}_\mu$ | 0 | 0 | 0 | 0.005878 | 0.005878 | 0 |
| $b\bar{b} \rightarrow \gamma\gamma$ | 0 | 0 | 0 | $7.962 \cdot 10^{-5}$ | $7.962 \cdot 10^{-5}$ | $4.898 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \mu^+ \mu^-$ | 0 | 0 | 0 | 0.002047 | 0.002047 | $-1.465 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow \nu_e \bar{\nu}_e$ | 0 | 0 | 0 | 0.002172 | 0.002172 | $-1.381 \cdot 10^{-7}$ |
| $b\bar{b} \rightarrow b\bar{b}$ | 0 | 0 | 0 | 1.953 | 1.953 | 0 |
| $b\bar{b} \rightarrow d\bar{d}$ | 0 | 0 | 0 | 0.5727 | 0.5727 | 0 |
| $b\bar{b} \rightarrow t\bar{t}$ | 0 | 0 | 0 | 0.3468 | 0.3468 | 0 |
| $b\bar{b} \rightarrow u\bar{u}$ | 0 | 0 | 0 | 0.4923 | 0.4923 | 0 |
| $b\bar{t} \rightarrow e^- \bar{\nu}_e$ | 0 | 0 | 0 | 0.003846 | 0.003846 | $-2.08 \cdot 10^{-7}$ |
| $c\bar{c} \rightarrow \mu^+ \mu^-$ | 0 | 0 | 0 | 0.004138 | 0.004138 | $1.692 \cdot 10^{-7}$ |
| $c\bar{s} \rightarrow \tau^+ \nu_\tau$ | 0 | 0 | 0 | 0.003369 | 0.003369 | $-2.374 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow c\bar{c}$ | 0 | 0 | 0 | 0.4924 | 0.4924 | 0 |
| $d\bar{d} \rightarrow e^+ e^-$ | 0 | 0 | 0 | 0.003209 | 0.003209 | $-1.558 \cdot 10^{-7}$ |
| $d\bar{d} \rightarrow s\bar{s}$ | 0 | 0 | 0 | 0.7427 | 0.7427 | 0 |
| $e^+ \nu_\mu \rightarrow e^+ \nu_\mu$ | 0 | 0 | 0 | 1.248 | 1.248 | 0 |
| $e^+ \nu_e \rightarrow \mu^+ \nu_\mu$ | 0 | 0 | 0 | 0.02347 | 0.02347 | $-2.557 \cdot 10^{-7}$ |
| $e^+ \nu_e \rightarrow e^+ \nu_e$ | 0 | 0 | 0 | 0.02161 | 0.02161 | $9.255 \cdot 10^{-8}$ |
| $e^+ \tau^- \rightarrow e^+ \tau^-$ | 0 | 0 | 0 | 0.02274 | 0.02274 | $6.157 \cdot 10^{-7}$ |
| $e^+ e^- \rightarrow \mu^+ \mu^-$ | 0 | 0 | 0 | 0.007851 | 0.007851 | $5.095 \cdot 10^{-7}$ |
| $e^+ e^- \rightarrow e^+ e^-$ | 0 | 0 | 0 | 0.05726 | 0.05726 | $6.112 \cdot 10^{-7}$ |
| $gg \rightarrow gg$ | 0 | 0 | 0 | 33.65 | 33.65 | 0 |
| $gg \rightarrow ggg$ | 0 | 0 | 0 | 0.004666 | 0.004666 | 0 |
| $gg \rightarrow t\bar{t}$ | 0 | 0 | 0 | 5.447 | 5.447 | 0 |
| $gg \rightarrow u\bar{u}$ | 0 | 0 | 0 | 0.3679 | 0.3679 | 0 |
| $s\bar{s} \rightarrow \nu_\tau \bar{\nu}_\tau$ | 0 | 0 | 0 | 0.000262 | 0.000262 | $1.908 \cdot 10^{-7}$ |
| $s\bar{s} \rightarrow s\bar{s}$ | 0 | 0 | 0 | 2.561 | 2.561 | 0 |

| | | | | | | |
|--|---|---|---|-----------|-----------|------------------------|
| $t\bar{t} \rightarrow \nu_\mu \bar{\nu}_\mu$ | 0 | 0 | 0 | 0.0006528 | 0.0006528 | 0 |
| $t\bar{t} \rightarrow \tau^+ \tau^-$ | 0 | 0 | 0 | 0.0008981 | 0.0008981 | $6.458 \cdot 10^{-7}$ |
| $t\bar{t} \rightarrow c\bar{c}$ | 0 | 0 | 0 | 0.8369 | 0.8369 | 0 |
| $t\bar{t} \rightarrow d\bar{d}$ | 0 | 0 | 0 | 0.5862 | 0.5862 | 0 |
| $t\bar{t} \rightarrow s\bar{s}$ | 0 | 0 | 0 | 0.5884 | 0.5884 | 0 |
| $t\bar{t} \rightarrow t\bar{t}$ | 0 | 0 | 0 | 5.307 | 5.307 | $-1.884 \cdot 10^{-8}$ |
| $u\bar{d} \rightarrow \mu^+ \nu_\mu$ | 0 | 0 | 0 | 0.01275 | 0.01275 | $-2.352 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow c\bar{s}$ | 0 | 0 | 0 | 0.04056 | 0.04056 | $-1.973 \cdot 10^{-7}$ |
| $u\bar{d} \rightarrow u\bar{d}$ | 0 | 0 | 0 | 106.2 | 106.2 | 0 |
| $u\bar{u} \rightarrow \nu_e \bar{\nu}_e$ | 0 | 0 | 0 | 0.001033 | 0.001033 | $-1.935 \cdot 10^{-7}$ |
| $u\bar{u} \rightarrow c\bar{c}$ | 0 | 0 | 0 | 0.563 | 0.563 | 0 |
| $u\bar{u} \rightarrow u\bar{u}$ | 0 | 0 | 0 | 29.63 | 29.63 | 0 |
| $zz \rightarrow W^+ W^-$ | 0 | 0 | 0 | 38.8 | 38.8 | $-4.896 \cdot 10^{-7}$ |
| $zz \rightarrow zz$ | 0 | 0 | 0 | 0.0619 | 0.0619 | 0 |