

$i$	$f_i(\Omega)$	$\Upsilon_i^{L,rr}(q^2)/kq^2$	$\eta_i^{L \rightarrow R}$
1	$P_0^0 Y_0^0$	$ H_0^L ^2 +  H_\perp^L ^2 +  H_\parallel^L ^2 +  S^L ^2 +  D_0^L ^2 +  D_\perp^L ^2 +  D_\parallel^L ^2$	+1
2	$F_1^1 Y_0^0$	$2 \left[ \frac{2}{\sqrt{5}} \text{Re}(H_0^L D_0^{L*}) + \text{Re}(S^L H_0^{L*}) + \sqrt{\frac{3}{5}} \text{Re}(H_\parallel^L D_\parallel^{L*} + H_\perp^L D_\perp^{L*}) \right]$	+1
3	$F_2^2 Y_0^0$	$\frac{\sqrt{5}}{7} ( D_\parallel^L ^2 +  D_\perp^L ^2) - \frac{1}{\sqrt{5}} ( H_\parallel^L ^2 +  H_\perp^L ^2) + \frac{2}{\sqrt{5}}  H_0^L ^2 + \frac{10}{7\sqrt{5}}  D_0^L ^2 + 2 \text{Re}(S^L D_0^{L*})$	+1
4	$F_3^3 Y_0^0$	$\frac{6}{\sqrt{35}} \left[ -\text{Re}(H_\parallel^L D_\parallel^{L*} + H_\perp^L D_\perp^{L*}) + \sqrt{3} \text{Re}(H_0^L D_0^{L*}) \right]$	+1
5	$F_4^4 Y_0^0$	$\frac{2}{7} \left[ -2( D_\parallel^L ^2 +  D_\perp^L ^2) + 3 D_0^L ^2 \right]$	+1
6	$F_0^0 Y_2^0$	$\frac{1}{2\sqrt{5}} ( D_\parallel^L ^2 +  D_\perp^L ^2) + ( H_\parallel^L ^2 +  H_\perp^L ^2) - 2 S^L ^2 - 2 D_0^L ^2 - 2 H_0^L ^2$	+1
7	$F_1^1 Y_2^0$	$\frac{\sqrt{3}}{5} \text{Re}(H_\parallel^L D_\parallel^{L*} + H_\perp^L D_\perp^{L*}) - \frac{2}{\sqrt{5}} \text{Re}(S^L H_0^{L*}) - \frac{4}{5} \text{Re}(H_0^L D_0^{L*})$	+1
8	$F_2^2 Y_2^0$	$\frac{1}{14} ( D_\parallel^L ^2 +  D_\perp^L ^2) - \frac{2}{7}  D_0^L ^2 - \frac{1}{10} ( H_\parallel^L ^2 +  H_\perp^L ^2) - \frac{2}{7}  H_0^L ^2 - \frac{2}{\sqrt{5}} \text{Re}(S^L D_0^{L*})$	+1
9	$F_3^3 Y_2^0$	$-\frac{3}{5\sqrt{7}} \left[ \text{Re}(H_\parallel^L D_\parallel^{L*} + H_\perp^L D_\perp^{L*}) + 2\sqrt{3} \text{Re}(H_0^L D_0^{L*}) \right]$	+1
10	$F_4^4 Y_2^0$	$-\frac{2}{7\sqrt{5}} ( D_\parallel^L ^2 +  D_\perp^L ^2 + 3 D_0^L ^2)$	+1
11	$P_1^1 \sqrt{2} \text{Re}(Y_2^1)$	$-\frac{3}{\sqrt{10}} \left[ \sqrt{\frac{2}{3}} \text{Re}(H_\parallel^L S^{L*}) - \sqrt{\frac{2}{15}} \text{Re}(H_\parallel^L D_0^{L*}) + \sqrt{\frac{2}{5}} \text{Re}(D_\parallel^L H_0^{L*}) \right]$	+1
12	$P_2^2 \sqrt{2} \text{Re}(Y_2^1)$	$-\frac{3}{5} \left[ \text{Re}(H_\parallel^L H_0^{L*}) + \sqrt{\frac{5}{3}} \text{Re}(D_\parallel^L S^{L*}) + \frac{5}{7\sqrt{3}} \text{Re}(D_\parallel^L D_0^{L*}) \right]$	+1
13	$P_3^3 \sqrt{2} \text{Re}(Y_2^1)$	$-\frac{6}{5\sqrt{14}} \left[ 2 \text{Re}(D_\parallel^L H_0^{L*}) + \sqrt{3} \text{Re}(H_\parallel^L D_0^{L*}) \right]$	+1
14	$P_4^4 \sqrt{2} \text{Re}(Y_2^1)$	$-\frac{6}{7\sqrt{2}} \text{Re}(D_\parallel^L D_0^{L*})$	+1
15	$F_1^1 \sqrt{2} \text{Im}(Y_2^1)$	$3 \left[ \frac{1}{\sqrt{15}} \text{Im}(H_\perp^L S^{L*}) + \frac{1}{5} \text{Im}(D_\perp^L H_0^{L*}) - \frac{1}{5\sqrt{3}} \text{Im}(H_\perp^L D_0^{L*}) \right]$	+1
16	$F_2^2 \sqrt{2} \text{Im}(Y_2^1)$	$3 \left[ \frac{1}{7\sqrt{3}} \text{Im}(D_\perp^L D_0^{L*}) + \frac{1}{5} \text{Im}(H_\perp^L H_0^{L*}) + \frac{1}{\sqrt{15}} \text{Im}(D_\perp^L S^{L*}) \right]$	+1
17	$F_3^3 \sqrt{2} \text{Im}(Y_2^1)$	$\frac{6}{5\sqrt{14}} \left[ 2 \text{Im}(D_\perp^L H_0^{L*}) + \sqrt{3} \text{Im}(H_\perp^L D_0^{L*}) \right]$	+1
18	$F_4^4 \sqrt{2} \text{Im}(Y_2^1)$	$\frac{6}{7\sqrt{2}} \text{Im}(D_\perp^L D_0^{L*})$	+1
19	$F_0^0 \sqrt{2} \text{Re}(Y_2^2)$	$-\frac{3}{2\sqrt{15}} ( H_\parallel^L ^2 -  H_\perp^L ^2) + ( D_\parallel^L ^2 -  D_\perp^L ^2)$	+1
20	$F_1^1 \sqrt{2} \text{Re}(Y_2^2)$	$-\frac{3}{5} \left[ \text{Re}(H_\parallel^L D_\parallel^{L*}) - \text{Re}(D_\perp^L H_\perp^{L*}) \right]$	+1
21	$F_2^2 \sqrt{2} \text{Re}(Y_2^2)$	$\frac{\sqrt{3}}{2} \left[ -\frac{1}{2} ( D_\parallel^L ^2 -  D_\perp^L ^2) + \frac{1}{5} ( H_\parallel^L ^2 -  H_\perp^L ^2) \right]$	+1
22	$F_3^3 \sqrt{2} \text{Re}(Y_2^2)$	$\frac{3}{5} \sqrt{\frac{3}{7}} \left[ \text{Re}(H_\parallel^L D_\parallel^{L*}) - \text{Re}(D_\perp^L H_\perp^{L*}) \right]$	+1
23	$F_4^4 \sqrt{2} \text{Re}(Y_2^2)$	$\frac{2}{7} \sqrt{\frac{3}{5}} ( D_\parallel^L ^2 -  D_\perp^L ^2)$	+1
24	$F_0^0 \sqrt{2} \text{Im}(Y_2^2)$	$\sqrt{\frac{3}{5}} \left[ \text{Im}(H_\perp^L H_\perp^{L*}) + \text{Im}(D_\perp^L D_\perp^{L*}) \right]$	+1
25	$F_1^1 \sqrt{2} \text{Im}(Y_2^2)$	$\frac{3}{5} \text{Im}(H_\perp^L D_\perp^{L*} + D_\perp^L H_\perp^{L*})$	+1
26	$F_2^2 \sqrt{2} \text{Im}(Y_2^2)$	$\sqrt{3} \left[ \frac{1}{2} \text{Im}(D_\perp^L D_\perp^{L*}) - \frac{1}{5} \text{Im}(H_\perp^L H_\perp^{L*}) \right]$	+1
27	$F_3^3 \sqrt{2} \text{Im}(Y_2^2)$	$-\frac{3}{5} \sqrt{\frac{3}{7}} \text{Im}(D_\perp^L H_\perp^{L*} + H_\perp^L D_\perp^{L*})$	+1
28	$F_4^4 \sqrt{2} \text{Im}(Y_2^2)$	$-\frac{4}{7} \sqrt{\frac{3}{5}} \text{Im}(D_\perp^L D_\perp^{L*})$	+1
29	$F_0^0 Y_1^0$	$-\sqrt{3} \left[ \text{Re}(H_\perp^L H_\perp^{L*}) + \text{Re}(D_\perp^L D_\perp^{L*}) \right]$	-1
30	$F_1^1 Y_1^0$	$-\frac{3}{\sqrt{5}} \text{Re}(H_\perp^L D_\perp^{L*} + H_\perp^L D_\perp^{L*})$	-1
31	$F_2^2 Y_1^0$	$-\frac{3}{\sqrt{15}} \left[ \frac{1}{2} \text{Re}(D_\perp^L D_\perp^{L*}) - \text{Re}(H_\perp^L H_\perp^{L*}) \right]$	-1
32	$F_3^3 Y_1^0$	$-\frac{9}{\sqrt{105}} \text{Re}(H_\perp^L D_\perp^{L*} + H_\perp^L D_\perp^{L*})$	-1
33	$F_4^4 Y_1^0$	$\frac{4\sqrt{3}}{7} \text{Re}(D_\perp^L D_\perp^{L*})$	-1
34	$P_1^1 \sqrt{2} \text{Re}(Y_1^1)$	$\sqrt{\frac{3}{5}} \left[ \sqrt{5} \text{Re}(H_\perp^L S^{L*}) + \sqrt{3} \text{Re}(D_\perp^L H_0^{L*}) - \text{Re}(H_\perp^L D_0^{L*}) \right]$	-1
35	$P_2^2 \sqrt{2} \text{Re}(Y_1^1)$	$3 \left[ \frac{1}{\sqrt{5}} \text{Re}(H_\perp^L H_0^{L*}) + \frac{1}{\sqrt{3}} \text{Re}(D_\perp^L S^{L*}) + \frac{5}{21} \sqrt{\frac{3}{5}} \text{Re}(D_\perp^L D_0^{L*}) \right]$	-1
36	$P_3^3 \sqrt{2} \text{Re}(Y_1^1)$	$\frac{6}{\sqrt{70}} \left[ 2 \text{Re}(D_\perp^L H_0^{L*}) + \sqrt{3} \text{Re}(H_\perp^L D_0^{L*}) \right]$	-1
37	$P_4^4 \sqrt{2} \text{Re}(Y_1^1)$	$\frac{3\sqrt{10}}{7} \text{Re}(D_\perp^L D_0^{L*})$	-1
38	$F_1^1 \sqrt{2} \text{Im}(Y_1^1)$	$-\sqrt{\frac{3}{5}} \left[ \sqrt{5} \text{Im}(H_\parallel^L S^{L*}) + \sqrt{3} \text{Im}(D_\perp^L H_0^{L*}) - \text{Im}(H_\parallel^L D_0^{L*}) \right]$	-1
39	$F_2^2 \sqrt{2} \text{Im}(Y_1^1)$	$-\sqrt{\frac{3}{5}} \left[ \sqrt{3} \text{Im}(H_\perp^L H_0^{L*}) + \sqrt{5} \text{Im}(D_\perp^L S^{L*}) + \frac{5}{7} \text{Im}(D_\perp^L D_0^{L*}) \right]$	-1
40	$F_3^3 \sqrt{2} \text{Im}(Y_1^1)$	$-6 \sqrt{\frac{1}{70}} \left[ 2 \text{Im}(D_\perp^L H_0^{L*}) + \sqrt{3} \text{Im}(H_\perp^L D_0^{L*}) \right]$	-1
41	$F_4^4 \sqrt{2} \text{Im}(Y_1^1)$	$-\frac{3}{7} \sqrt{10} \text{Im}(D_\perp^L D_0^{L*})$	-1