	Variational derivative of Lagrangian by fields
A_{μ} ρ^{+}_{ν} ρ^{-}_{ρ}	$\frac{e}{M_{\rho^2}}(M_W^2 \cdot a^2 \cdot p_2^{\rho}g^{\mu\nu} - M_W^2 \cdot a^2 \cdot p_2^{\mu}g^{\nu\rho} - M_W^2 \cdot a^2 \cdot p_3^{\nu}g^{\mu\rho} + M_W^2 \cdot a^2 \cdot p_3^{\mu}g^{\nu\rho})$
	$ + M_W^2 \cdot a^2 \cdot p_1^{\nu} g^{\mu\rho} - M_W^2 \cdot a^2 \cdot p_1^{\rho} g^{\mu\nu} + M_{\rho}^2 \cdot p_2^{\rho} g^{\mu\nu} - M_{\rho}^2 \cdot p_2^{\mu} g^{\nu\rho} - M_{\rho}^2 \cdot p_3^{\nu} g^{\mu\rho} + M_{\rho}^2 \cdot p_3^{\mu} g^{\nu\rho} $
	$+M_{ ho}{}^2\cdot p_1^{ u}g^{\mu ho}-M_{ ho}{}^2\cdot p_1^{ ho}g^{\mu u})$
$A_{\mu} W^{+}_{\nu} W^{-}_{\rho}$	$\frac{e}{M_{\rho}^{2}}(M_{\rho}^{2} \cdot p_{2}^{\rho}g^{\mu\nu} - M_{\rho}^{2} \cdot p_{2}^{\mu}g^{\nu\rho} - M_{\rho}^{2} \cdot p_{3}^{\nu}g^{\mu\rho} + M_{\rho}^{2} \cdot p_{3}^{\mu}g^{\nu\rho} + M_{\rho}^{2} \cdot p_{1}^{\nu}g^{\mu\rho})$
	$-M_{\rho}^{2} \cdot p_{1}^{\rho} g^{\mu\nu} + M_{W}^{2} \cdot a^{2} \cdot p_{2}^{\rho} g^{\mu\nu} - M_{W}^{2} \cdot a^{2} \cdot p_{2}^{\mu} g^{\nu\rho} - M_{W}^{2} \cdot a^{2} \cdot p_{3}^{\nu} g^{\mu\rho} + M_{W}^{2} \cdot a^{2} \cdot p_{3}^{\mu} g^{\nu\rho}$
	$+M_W^2 \cdot a^2 \cdot p_1^{ u} g^{\mu ho} - M_W^2 \cdot a^2 \cdot p_1^{ ho} g^{\mu u})$
\bar{b}_{ap} b_{bq} A_{μ}	$rac{1}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{b}_{ap}$ b_{bq} ω_{μ}	$\frac{1}{6} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_o^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2(2 - 3\sin \theta_w^2) \cdot M_{\rho}^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2})$
	$+4M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (2-3\sin\theta_w^2) \cdot M_\rho^2 \cdot \frac{(1-\gamma^5)_{cb}}{2}$
	$-2M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1-\gamma^5)_{cb}}{2})$
$ar{b}_{ap}$ b_{bq} $ ho^0_{\ \mu}$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$ar{b}_{ap}$ b_{bq} Z_{μ}	$-\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2 \sin \theta_w^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (3-2 \sin \theta_w^2) \cdot \frac{(1-\gamma^5)_{cb}}{2})$
$egin{array}{cccccccccccccccccccccccccccccccccccc$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V cb \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
	$-\frac{1}{2}\frac{\sqrt{2}\cdot V cb\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$egin{array}{cccccccccccccccccccccccccccccccccccc$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vtb \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vtb\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{b}_{ap} u_{bq} ρ^{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vub \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{b}_{ap} u_{bq} W^{μ}	$-rac{1}{2}rac{\sqrt{2}\cdot Vub\cdot e}{\sin heta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
\bar{c}_{ap} b_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V cb \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{c}_{ap} b_{bq} W^{+}_{μ}	$-rac{1}{2}rac{\sqrt{2}\cdot Vcb\cdot e}{\sin heta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
\bar{c}_{ap} c_{bq} A_{μ}	$-rac{2}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{c}_{ap}$ c_{bq} ω_{μ}	$\begin{vmatrix} -\frac{2}{3}e\delta_{pq}\gamma_{ac}^{\mu} \cdot \delta_{cb} \\ -\frac{1}{6}\frac{M_{W} \cdot a \cdot e}{\cos\theta_{w}^{2} \cdot M_{\rho}^{3} \cdot \sin\theta_{w}} \delta_{pq}\gamma_{ac}^{\mu} ((2 - 3\sin\theta_{w}^{2}) \cdot M_{\rho}^{2} \cdot \frac{(1 - \gamma^{5})_{cb}}{2} + 2M_{W}^{2} \cdot \sin\theta_{w}^{2} \cdot a^{2} \cdot \frac{(1 - \gamma^{5})_{cb}}{2} \end{vmatrix}$
	$+4(2-3\sin\theta_w^2)\cdot M_{\rho^2}^2\cdot \frac{(1+\gamma^5)_{cb}}{2} + 8M_W^2\cdot \sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2})$
	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{c}_{ap} c_{bq} Z_{μ}	$-\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} ((3 - 4\sin \theta_w^2) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 4\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2})$

Fields in the vertex	Variational derivative of Lagrangian by fields
\bar{c}_{ap} d_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vcd \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{c}_{ap} d_{bq} W^+_{μ}	$-\frac{1}{2} \frac{\sqrt{2} \cdot V c d \cdot e}{\sin \theta_w} \cdot \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2}$
\bar{c}_{ap} s_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V cs \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{c}_{ap} s_{bq} W^+_{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vcs\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$egin{array}{cccc} ar{d}_{ap} & c_{bq} & ho^-{}_{\mu} \end{array}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V c d \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{d}_{ap} c_{bq} W^{μ}	$-\frac{1}{2} \frac{\sqrt{2} \cdot V c d \cdot e}{\sin \theta_w} \cdot \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2}$
$ \bar{d}_{ap} d_{bq} A_{\mu}$	$\frac{1}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
\bar{d}_{ap} d_{bq} ω_{μ}	$\frac{1}{6} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2(2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2})$
	$+4M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (2-3\sin\theta_w^2) \cdot M_{\rho}^2 \cdot \frac{(1-\gamma^5)_{cb}}{2}$
	$-2M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1-\gamma^5)_{cb}}{2})$
\bar{d}_{ap} d_{bq} ρ^0_{μ}	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{d}_{ap} d_{bq} Z_{μ}	$ -\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2 \sin \theta_w^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (3-2 \sin \theta_w^2) \cdot \frac{(1-\gamma^5)_{cb}}{2}) $
\bar{d}_{ap} t_{bq} ρ^{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vtd \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{d}_{ap} t_{bq} W^{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vtd\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{d}_{ap} u_{bq} ρ^{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vud \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{d}_{ap} u_{bq} W^{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vud\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$\bar{e}_a e_b A_\mu$	$e\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{e}_a$ e_b ω_μ	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} ((2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} + 2M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2})$
	$+2(2-3\sin\theta_w^2)\cdot M_{\rho^2}\cdot \frac{(1+\gamma^5)_{cb}}{2} + 4M_W^2\cdot \sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2})$
$\bar{e}_a e_b {\rho^0}_{\mu}$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$ar{e}_a$ e_b Z_μ	$\frac{1}{2} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \gamma_{ac}^{\mu} \left(\left(1 - 2\sin \theta_w^2 \right) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 2\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2} \right)$
$\bar{e}_a \nu^e{}_b \rho^-{}_\mu$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{e}_a \nu^e_b W^\mu$	$-\frac{1}{2}\frac{\sqrt{2}\cdot e}{\sin\theta_w}\cdot\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$\bar{\mu}_a$ μ_b A_μ	$e\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$\bar{\mu}_a$ μ_b ω_μ	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} ((2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} + 2M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2})$

Fields in the vertex	Variational derivative of Lagrangian by fields
	$+2(2-3\sin\theta_w^2)\cdot M_{\rho^2}\cdot \frac{(1+\gamma^5)_{cb}}{2} + 4M_W^2\cdot \sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2})$
$\bar{\mu}_a \mu_b {\rho^0}_\mu$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
	$\frac{1}{2} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \gamma_{ac}^{\mu} \left(\left(1 - 2\sin \theta_w^2 \right) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 2\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2} \right)$
	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{\mu}_a \nu^{\mu}{}_b W^{-}{}_{\mu}$	$-\frac{1}{2}\frac{\sqrt{2}\cdot e}{\sin\theta_w}\cdot\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$\bar{\tau}_a \tau_b A_\mu$	$e\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{ au}_a$ $ au_b$ ω_μ	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} ((2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} + 2M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2}$
	$+2(2-3\sin\theta_w^2)\cdot M_{\rho}^2\cdot \frac{(1+\gamma^5)_{cb}}{2} + 4M_W^2\cdot \sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2})$
$\bar{ au}_a$ τ_b $\rho^0_{\ \mu}$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{ au}_a$ τ_b Z_μ	$\frac{1}{2} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \gamma_{ac}^{\mu} \left(\left(1 - 2\sin \theta_w^2 \right) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 2\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2} \right)$
$\bar{\tau}_a \nu^{\tau}_b \rho^{-}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{\tau}_a \nu^{\tau}_b W^{-}_{\mu}$	$-rac{1}{2}rac{\sqrt{2}\cdot e}{\sin heta_w}\cdot\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
H H H	$-\frac{3}{2}\frac{MH^2 \cdot e}{M_W \cdot \sin \theta_w}$
H ω_{μ} ω_{ν}	$\frac{M_W^3 \cdot \sin \theta_w^3 \cdot a^2 \cdot e}{\cos \theta_w^4 \cdot M_\rho^2} \cdot g^{\mu\nu}$
$H \omega_{\mu} \rho^{0}_{\nu}$	$-\frac{M_W^3 \cdot \sin \theta_w \cdot a^2 \cdot e}{\cos \theta_w^2 \cdot M_\rho^2} \cdot g^{\mu\nu}$
H ω_{μ} Z_{ν}	$\frac{M_W^2 \cdot \sin \theta_w \cdot a \cdot e}{\cos \theta_w^3 \cdot M_{ ho}} \cdot g^{\mu u}$
$H \rho^+_{\mu} \rho^{\nu}$	$\frac{M_W^3 \cdot a^2 \cdot e}{M_{ ho}^2 \cdot \sin \theta_w} \cdot g^{\mu u}$
$H \rho^+_{\mu} W^{\nu}$	$-rac{M_W^2 \cdot a \cdot e}{M_ ho \cdot \sin heta_w} \cdot g^{\mu u}$
$H \rho^{\ \mu} W^+_{\ \nu}$	$-rac{M_W^2 \cdot a \cdot e}{M_ ho \cdot \sin heta_w} \cdot g^{\mu u}$
$H \rho^0_{\ \mu} \rho^0_{\ \nu}$	$\frac{M_W^3 \cdot a^2 \cdot e}{M_{ ho}^2 \cdot \sin \theta_w} \cdot g^{\mu u}$
$H \rho^0_{\ \mu} Z_{\nu}$	
$H W^+_{\mu} W^{\nu}$	
	$\frac{M_W \cdot e}{\cos \theta_w^2 \cdot \sin \theta_w} \cdot g^{\mu\nu}$
	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_{\rho}^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_{\rho}^2 + 2M_W^2 a^2)$
$\bar{\nu}^e{}_a e_b W^+{}_\mu$	$-rac{1}{2}rac{\sqrt{2}\cdot e}{\sin heta_w}\cdot\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$

Fields in the vertex	Variational derivative of Lagrangian by fields
$\bar{\nu}^e{}_a {\nu^e}_b \omega_\mu$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} ((2 - 3\sin \theta_w^2) M_\rho^2 + 2M_W^2 \sin \theta_w^2 a^2)$
$\bar{\nu}^e{}_a$ $\nu^e{}_b$ $\rho^0{}_\mu$	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{\nu}^e{}_a$ $\nu^e{}_b$ Z_μ	$-rac{1}{2}rac{e}{\cos heta_w\cdot\sin heta_w}\cdot\gamma^{\mu}_{ac}rac{(1-\gamma^5)_{cb}}{2}$
$\bar{\nu}^{\mu}{}_{a}$ μ_{b} $\rho^{+}{}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{\nu}^{\mu}{}_{a}$ μ_{b} $W^{+}{}_{\mu}$	$-rac{1}{2}rac{\sqrt{2}\cdot e}{\sin heta_w}\cdot\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
$\bar{\nu}^{\mu}{}_{a}$ $\nu^{\mu}{}_{b}$ ω_{μ}	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} ((2 - 3\sin \theta_w^2) M_\rho^2 + 2M_W^2 \sin \theta_w^2 a^2)$
$\bar{ u}^{\mu}{}_{a}$ $\nu^{\mu}{}_{b}$ $\rho^{0}{}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{ u}^{\mu}{}_{a}$ $\nu^{\mu}{}_{b}$ Z_{μ}	$-rac{1}{2}rac{e}{\cos heta_w\cdot\sin heta_w}\cdot\gamma^{\mu}_{ac}rac{(1-\gamma^5)_{cb}}{2}$
$\bar{\nu}^{\tau}{}_{a}$ τ_{b} $\rho^{+}{}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{\nu}^{\tau}{}_{a}$ τ_{b} $W^{+}{}_{\mu}$	$-rac{1}{2}rac{\sqrt{2}\cdot e}{\sin heta_w}\cdot\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
$\bar{ u}^{ au}{}_{a}$ $ u^{ au}{}_{b}$ ω_{μ}	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} ((2 - 3\sin \theta_w^2) M_\rho^2 + 2M_W^2 \sin \theta_w^2 a^2)$
$\bar{ u}^{ au}{}_a$ ${ u}^{ au}{}_b$ ${ ho^0}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$\bar{ u}^{ au}{}_{a}$ $ u^{ au}{}_{b}$ Z_{μ}	$-rac{1}{2}rac{e}{\cos heta_w\cdot\sin heta_w}\cdot\gamma^{\mu}_{ac}rac{(1-\gamma^5)_{cb}}{2}$
ρ^+_{μ} ρ^{ν} ρ^0_{ρ}	$-\frac{e}{M_{\rho^{3}} \cdot M_{W} \cdot \sin \theta_{w} \cdot a} (M_{W}^{4} \cdot a^{4} \cdot p_{1}^{\nu} g^{\mu \rho} - M_{W}^{4} \cdot a^{4} \cdot p_{1}^{\rho} g^{\mu \nu} - M_{W}^{4} \cdot a^{4} \cdot p_{2}^{\mu} g^{\nu \rho} + M_{W}^{4} \cdot a^{4} \cdot p_{2}^{\rho} g^{\mu \nu}$
	$+M_W^4 \cdot a^4 \cdot p_3^{\mu} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot p_3^{\nu} g^{\mu\rho} - M_{\rho}^4 \cdot p_1^{\nu} g^{\mu\rho} + M_{\rho}^4 \cdot p_1^{\rho} g^{\mu\nu} + M_{\rho}^4 \cdot p_2^{\mu} g^{\nu\rho} - M_{\rho}^4 \cdot p_2^{\rho} g^{\mu\nu}$
	$-M_{\rho}{}^4 \cdot p_3^{\mu} g^{\nu\rho} + M_{\rho}{}^4 \cdot p_3^{\nu} g^{\mu\rho})$
ρ^+_{μ} ρ^{ν} Z_{ρ}	$\frac{\cos\theta_w \cdot e}{M_{\rho}^2 \cdot \sin\theta_w} (M_W^2 \cdot a^2 \cdot p_1^{\nu} g^{\mu\rho} - M_W^2 \cdot a^2 \cdot p_1^{\rho} g^{\mu\nu} - M_W^2 \cdot a^2 \cdot p_2^{\mu} g^{\nu\rho} + M_W^2 \cdot a^2 \cdot p_2^{\rho} g^{\mu\nu}$
	$+M_W{}^2 \cdot a^2 \cdot p_3^{\mu} g^{\nu\rho} - M_W{}^2 \cdot a^2 \cdot p_3^{\nu} g^{\mu\rho} + M_{\rho}{}^2 \cdot p_1^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_1^{\rho} g^{\mu\nu} - M_{\rho}{}^2 \cdot p_2^{\mu} g^{\nu\rho} + M_{\rho}{}^2 \cdot p_2^{\rho} g^{\mu\nu}$
	$+ M_{ ho}^{\; 2} \cdot p_3^{\mu} g^{ u ho} - M_{ ho}^{\; 2} \cdot p_3^{ u} g^{\mu ho})$
$\rho^+{}_\mu \rho^0{}_\nu W^-{}_\rho$	$\frac{e}{M_{\rho^2 \cdot \sin \theta_w}} (M_W^2 \cdot a^2 \cdot p_1^{\rho} g^{\mu\nu} - M_W^2 \cdot a^2 \cdot p_1^{\nu} g^{\mu\rho} - M_W^2 \cdot a^2 \cdot p_3^{\mu} g^{\nu\rho} + M_W^2 \cdot a^2 \cdot p_3^{\nu} g^{\mu\rho})$
	$+ M_W^2 \cdot a^2 \cdot p_2^\mu g^{\nu\rho} - M_W^2 \cdot a^2 \cdot p_2^\rho g^{\mu\nu} + M_\rho^2 \cdot p_1^\rho g^{\mu\nu} - M_\rho^2 \cdot p_1^\nu g^{\mu\rho} - M_\rho^2 \cdot p_3^\mu g^{\nu\rho} + M_\rho^2 \cdot p_3^\nu g^{\mu\rho} + M_\rho^2 $
	$+M_ ho^2\cdot p_2^\mu g^{ u ho}-M_ ho^2\cdot p_2^ ho g^{\mu u})$
$\rho^-{}_\mu \rho^0{}_\nu W^+{}_\rho$	$\frac{e}{M_{\rho^2 \sin \theta_w}} (M_W^2 \cdot a^2 \cdot p_3^{\mu} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot p_3^{\nu} g^{\mu\rho} - M_W^2 \cdot a^2 \cdot p_1^{\rho} g^{\mu\nu} + M_W^2 \cdot a^2 \cdot p_1^{\nu} g^{\mu\rho})$
	$+M_W{}^2 \cdot a^2 \cdot p_2^{\rho} g^{\mu\nu} - M_W{}^2 \cdot a^2 \cdot p_2^{\mu} g^{\nu\rho} + M_{\rho}{}^2 \cdot p_3^{\mu} g^{\nu\rho} - M_{\rho}{}^2 \cdot p_3^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_1^{\rho} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_1^{\nu} g^{\mu\rho} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\rho} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\nu\rho} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} - M_{\rho}{}^2 \cdot p_2^{\nu} g^{\mu\nu} + M_{\rho}{}^2 \cdot p_2^{\nu} g^{\nu\rho} - M_{\rho}$
	$+M_{\rho}^{2}\cdot p_{2}^{\rho}g^{\mu\nu}-M_{\rho}^{2}\cdot p_{2}^{\mu}g^{\nu\rho})$

Fields in the vertex	Variational derivative of Lagrangian by fields
\bar{s}_{ap} c_{bq} ρ^{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V cs \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{s}_{ap} c_{bq} W^{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vcs\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{s}_{ap} s_{bq} A_{μ}	$\frac{1}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{s}_{ap}$ s_{bq} ω_{μ}	$\frac{1}{6} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2(2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2})$
	$+4M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (2-3\sin\theta_w^2) \cdot M_{\rho}^2 \cdot \frac{(1-\gamma^5)_{cb}}{2}$
	$-2M_W^2 \cdot \sin\theta_w^2 \cdot a^2 \cdot \frac{(1-\gamma^5)_{cb}}{2})$
$ar{s}_{ap}$ s_{bq} $ ho^0_{\ \mu}$	$\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{s}_{ap} s_{bq} Z_{μ}	$ -\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} (2\sin \theta_w^2 \cdot \frac{(1+\gamma^5)_{cb}}{2} - (3-2\sin \theta_w^2) \cdot \frac{(1-\gamma^5)_{cb}}{2}) $
\bar{s}_{ap} t_{bq} $ ho^{\mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V t s \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{s}_{ap} t_{bq} W^{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vts\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{s}_{ap} u_{bq} ρ^{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vus \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{s}_{ap} u_{bq} W^{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vus\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{t}_{ap} b_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V t b \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{t}_{ap} b_{bq} W^+_{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vtb\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{t}_{ap} d_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vtd \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{t}_{ap} d_{bq} W^{+}_{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vtd\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
\bar{t}_{ap} s_{bq} ρ^+_{μ}	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot V t s \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{t}_{ap} s_{bq} W^{+}_{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vts\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$
$ar{t}_{ap}$ t_{bq} A_{μ}	$-\frac{2}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
$ar{t}_{ap}$ t_{bq} ω_{μ}	$ -\frac{1}{6} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} ((2 - 3\sin \theta_w^2) \cdot M_\rho^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} + 2M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} $
	$+4(2-3\sin\theta_w^2)\cdot M_{\rho^2}\cdot \frac{(1+\gamma^5)_{cb}}{2} + 8M_W^2\cdot \sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2})$
\bar{t}_{ap} t_{bq} ρ^0_{μ}	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
	$ -\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} ((3 - 4\sin \theta_w^2) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 4\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2}) $
\bar{u}_{ap} b_{bq} $\rho^+_{\ \mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vub \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{u}_{ap} b_{bq} W^{+}_{μ}	$-\frac{1}{2}\frac{\sqrt{2}\cdot Vub\cdot e}{\sin\theta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}\frac{(1-\gamma^5)_{cb}}{2}$

Fields in the vertex	Variational derivative of Lagrangian by fields
	$1 M_W \cdot \sqrt{2} \cdot Vud \cdot a \cdot e s$ $\mathcal{A}_W \cdot (1-\gamma^5)_{cb} \cdot (M_W^2 + 2M_W^2)_{cb}$
$\begin{bmatrix} \bar{u}_{ap} & d_{bq} & \rho^+_{\mu} \end{bmatrix}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vud \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1-\gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{u}_{ap} d_{bq} W^{+}_{μ}	$-rac{1}{2}rac{\sqrt{2\cdot Vud\cdot e}}{\sin heta_w}\cdot\delta_{pq}\gamma_{ac}^{\mu}rac{(1-\gamma^5)_{cb}}{2}$
$ \bar{u}_{ap} s_{bq} \rho^+_{\ \mu}$	$-\frac{1}{2} \frac{M_W \cdot \sqrt{2} \cdot Vus \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
\bar{u}_{ap} s_{bq} W^{+}_{μ}	$-rac{1}{2}rac{\sqrt{2}\cdot Vus\cdot e}{\sin heta_w}\cdot\delta_{pq}\gamma^{\mu}_{ac}rac{(1-\gamma^5)_{cb}}{2}$
\bar{u}_{ap} u_{bq} A_{μ}	$-rac{2}{3}e\delta_{pq}\gamma^{\mu}_{ac}\cdot\delta_{cb}$
\bar{u}_{ap} u_{bq} ω_{μ}	$ -\frac{1}{6} \frac{M_W \cdot a \cdot e}{\cos \theta_w^2 \cdot M_{\rho}^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} ((2 - 3\sin \theta_w^2) \cdot M_{\rho}^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} + 2M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot \frac{(1 - \gamma^5)_{cb}}{2} $
	$+4(2-3\sin\theta_w^2)\cdot M_{\rho^2}\cdot \frac{(1+\gamma^5)_{cb}}{2} + 8M_W^2\cdot\sin\theta_w^2\cdot a^2\cdot \frac{(1+\gamma^5)_{cb}}{2}$
$ \bar{u}_{ap} u_{bq} {\rho^0}_{\mu}$	$-\frac{1}{2} \frac{M_W \cdot a \cdot e}{M_\rho^3 \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} \frac{(1 - \gamma^5)_{cb}}{2} (M_\rho^2 + 2M_W^2 a^2)$
$ \bar{u}_{ap} u_{bq} Z_{\mu}$	$-\frac{1}{6} \frac{e}{\cos \theta_w \cdot \sin \theta_w} \delta_{pq} \gamma_{ac}^{\mu} ((3 - 4\sin \theta_w^2) \cdot \frac{(1 - \gamma^5)_{cb}}{2} - 4\sin \theta_w^2 \cdot \frac{(1 + \gamma^5)_{cb}}{2})$
$W^+_{\mu} W^{\nu} Z_{\rho}$	$\frac{\cos\theta_w \cdot e}{\sin\theta_w \cdot M_{\rho^2}} (M_{\rho^2} \cdot p_1^{\nu} g^{\mu\rho} - M_{\rho^2} \cdot p_1^{\rho} g^{\mu\nu} - M_{\rho^2} \cdot p_2^{\mu} g^{\nu\rho} + M_{\rho^2} \cdot p_2^{\rho} g^{\mu\nu} + M_{\rho^2} \cdot p_3^{\mu} g^{\nu\rho}$
	$-M_{\rho}^{2} \cdot p_{3}^{\nu} g^{\mu\rho} + M_{W}^{2} \cdot a^{2} \cdot p_{1}^{\nu} g^{\mu\rho} - M_{W}^{2} \cdot a^{2} \cdot p_{1}^{\rho} g^{\mu\nu} - M_{W}^{2} \cdot a^{2} \cdot p_{2}^{\mu} g^{\nu\rho} + M_{W}^{2} \cdot a^{2} \cdot p_{2}^{\rho} g^{\mu\nu}$
	$+M_W^2 \cdot a^2 \cdot p_3^{\mu} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot p_3^{\nu} g^{\mu\rho})$
$A_{\mu} A_{\nu} \rho^{+}{}_{\rho} \rho^{-}{}_{\sigma}$	$-\frac{e^2}{M_{\rho^2}}(2M_W^2 \cdot a^2 \cdot g^{\mu\nu}g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\rho}g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma}g^{\nu\rho})$
	$+2M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma}-M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma}-M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho})$
$A_{\mu} A_{\nu} W^{+}{}_{\rho} W^{-}{}_{\sigma}$	$-\frac{e^2}{M_{\rho}^2}(2M_{\rho}^2 \cdot g^{\mu\nu}g^{\rho\sigma} - M_{\rho}^2 \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^2 \cdot g^{\mu\sigma}g^{\nu\rho} + 2M_W^2 \cdot a^2 \cdot g^{\mu\nu}g^{\rho\sigma}$
	$-M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho})$
$A_{\mu} \rho^{+}_{\ \nu} \rho^{-}_{\ \rho} \rho^{0}_{\ \sigma}$	$\frac{e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$-2M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma} + M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma})$
$A_{\mu} \rho^{+}_{\ \nu} \rho^{-}_{\ \rho} Z_{\sigma}$	$-\frac{\cos\theta_w \cdot e^2}{M_{\rho}^2 \cdot \sin\theta_w} (2M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$+2M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho} - M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma})$
$A_{\mu} \rho^{+}_{\ \nu} \rho^{0}_{\ \rho} W^{-}_{\ \sigma}$	$-\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w}} (2M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$+2M_{\rho}^{2} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2} \cdot g^{\mu\sigma}g^{\nu\rho} - M_{\rho}^{2} \cdot g^{\mu\nu}g^{\rho\sigma})$
$A_{\mu} \rho^{-}_{\nu} \rho^{0}_{\rho} W^{+}_{\sigma}$	$-\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w}} (2M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho})$
	$+2M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma} - M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho})$
$\begin{array}{ c c c c c c } A_{\mu} & W^{+}_{\nu} & W^{-}_{\rho} & Z_{\sigma} \end{array}$	$ -\frac{\cos\theta_w \cdot e^2}{\sin\theta_w \cdot M_{\rho}^2} (2M_{\rho}^2 \cdot g^{\mu\sigma} g^{\nu\rho} - M_{\rho}^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_{\rho}^2 \cdot g^{\mu\nu} g^{\rho\sigma} + 2M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} $

Fields in the vertex	Variational derivative of Lagrangian by fields
	$-M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma})$
H H H	$-\frac{3}{4}\frac{MH^2 \cdot e^2}{M_W^2 \cdot \sin \theta_w^2}$
H H ω_{μ} ω_{ν}	$\frac{1}{2} \frac{M_W^2 \cdot \sin \theta_w^2 \cdot a^2 \cdot e^2}{\cos \theta_w^4 \cdot M_\rho^2} \cdot g^{\mu\nu}$
$H H \omega_{\mu} \rho^{0}_{\nu}$	$-rac{1}{2}rac{M_W^2\cdot a^2\cdot e^2}{\cos heta_w^2\cdot M_ ho^2}\cdot g^{\mu u}$
H H ω_{μ} $Z_{ u}$	$\frac{1}{2} \frac{M_W \cdot a \cdot e^2}{\cos \theta_w^{3} \cdot M_\rho} \cdot g^{\mu\nu}$
H H ρ^+_{μ} ρ^{ν}	$rac{1}{2}rac{M_W^2\cdot a^2\cdot e^2}{M_ ho^2\cdot \sin heta_w^2}\cdot g^{\mu u}$
H H ρ^+_{μ} W^{ν}	$-rac{1}{2}rac{M_W\cdot a\cdot e^2}{M_ ho\cdot\sin heta_w^2}\cdot g^{\mu u}$
H H ρ^{μ} W^+_{ν}	$-rac{1}{2}rac{M_W\cdot a\cdot e^2}{M_ ho\cdot\sin heta_w^2}\cdot g^{\mu u}$
H H $\rho^0_{\ \mu}$ $\rho^0_{\ \nu}$	$\frac{1}{2} \frac{M_W^2 \cdot a^2 \cdot e^2}{M_{ ho}^2 \cdot \sin \theta_w^2} \cdot g^{\mu u}$
H H $\rho^0_{\ \mu}$ Z_{ν}	$-\frac{1}{2}\frac{M_W \cdot a \cdot e^2}{\cos \theta_w \cdot M_\rho \cdot \sin \theta_w^2} \cdot g^{\mu\nu}$
H H W^+_{μ} W^{ν}	$\frac{1}{2} \frac{e^2}{\sin \theta_w^2} \cdot g^{\mu\nu}$
H H Z_{μ} $Z_{ u}$	$\frac{1}{2} \frac{e^2}{\cos \theta_w^2 \cdot \sin \theta_w^2} \cdot g^{\mu\nu}$
ρ^+_{μ} ρ^+_{ν} ρ^{ρ} ρ^{σ}	$\frac{e^2}{M_{\rho^4} \cdot M_W^2 \cdot \sin \theta_w^2 \cdot a^2} (2M_W^6 \cdot a^6 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^6 \cdot a^6 \cdot g^{\mu\sigma} g^{\nu\rho} + 2M_{\rho^6} \cdot g^{\mu\nu} g^{\rho\sigma}$
	$-M_{\rho}^{\ 6} \cdot g^{\mu\sigma}g^{\nu\rho} - M_{W}^{\ 6} \cdot a^{6} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{\ 6} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ -\frac{e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w^2 \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma}) $
	$-2M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma} + M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w^2}} (2M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} + 2M_{\rho^2}^2 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$-M_{\rho}^{2} \cdot g^{\mu\sigma}g^{\nu\rho} - M_{W}^{2} \cdot a^{2} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\rho^+_{\mu} \rho^{\nu} \rho^{\rho} W^+_{\sigma}$	$ -\frac{e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w^2 \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma}) $
	$-2M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma} + M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma})$
$\rho^+_{\mu} \rho^{\nu} \rho^0_{\rho} \rho^0_{\sigma}$	$ -\frac{e^2}{M_{\rho^4} \cdot M_W^2 \cdot \sin \theta_w^2 \cdot a^2} (2M_W^6 \cdot a^6 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^6 \cdot a^6 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^6 \cdot a^6 \cdot g^{\mu\sigma} g^{\nu\rho}) $
	$+2M_{\rho}^{6} \cdot g^{\mu\nu}g^{\rho\sigma} - M_{\rho}^{6} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{6} \cdot g^{\mu\sigma}g^{\nu\rho})$
$\rho^+_{\mu} \rho^{\nu} \rho^0_{\rho} Z_{\sigma}$	$\frac{\cos \theta_w \cdot e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w^2 \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho}$
	$-2M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma} + M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho})$
$\rho^+_{\mu} \rho^{\nu} W^+_{\rho} W^{\sigma}$	$\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w^2}} (2M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma})$

Fields in the vertex	Variational derivative of Lagrangian by fields
	$+2M_{\rho}^{2} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2} \cdot g^{\mu\sigma}g^{\nu\rho} - M_{\rho}^{2} \cdot g^{\mu\nu}g^{\rho\sigma})$
$\rho^+_{\mu} \rho^{\nu} Z_{\rho} Z_{\sigma}$	$ - \frac{\cos\theta_w^2 \cdot e^2}{M_{\rho^2} \cdot \sin\theta_w^2} (2M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} $
	$+2M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma}-M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma}-M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho})$
$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w^2 \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma})$
	$-2M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho} + M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\left \begin{array}{cccc} \rho^+{}_{\mu} & \rho^0{}_{\nu} & W^-{}_{\rho} & Z_{\sigma} \end{array} \right $	$ -\frac{\cos\theta_w \cdot e^2}{M_{\rho^2 \cdot \sin\theta_w^2}} (2M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} $
	$+2M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma}-M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma}-M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho})$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w^2}} (2M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} + 2M_{\rho^2}^2 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$-M_{\rho}^{2} \cdot g^{\mu\sigma}g^{\nu\rho} - M_{W}^{2} \cdot a^{2} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^{2} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\rho^{\mu} \rho^0_{\nu} \rho^0_{\rho} W^+_{\sigma}$	$\frac{e^2}{M_{\rho^3} \cdot M_W \cdot \sin \theta_w^2 \cdot a} (2M_W^4 \cdot a^4 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^4 \cdot a^4 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^4 \cdot a^4 \cdot g^{\mu\nu} g^{\rho\sigma})$
	$-2M_{\rho}^{4} \cdot g^{\mu\sigma}g^{\nu\rho} + M_{\rho}^{4} \cdot g^{\mu\rho}g^{\nu\sigma} + M_{\rho}^{4} \cdot g^{\mu\nu}g^{\rho\sigma})$
	$ - \frac{\cos\theta_w \cdot e^2}{M_{\rho^2 \cdot \sin\theta_w^2}} (2M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho} - M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} $
	$+2M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma}-M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho}-M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma})$
$\rho^{0}_{\mu} \rho^{0}_{\nu} W^{+}_{\rho} W^{-}_{\sigma}$	$-\frac{e^2}{M_{\rho^2 \cdot \sin \theta_w}^2} (2M_W^2 \cdot a^2 \cdot g^{\mu\nu} g^{\rho\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho})$
	$+2M_{\rho}^{2}\cdot g^{\mu\nu}g^{\rho\sigma}-M_{\rho}^{2}\cdot g^{\mu\rho}g^{\nu\sigma}-M_{\rho}^{2}\cdot g^{\mu\sigma}g^{\nu\rho})$
$W^{+}_{\mu} W^{+}_{\nu} W^{-}_{\rho} W^{-}_{\sigma}$	$\frac{e^2}{\sin\theta_w^{2} \cdot M_{\rho}^{2}} (2M_{\rho}^{2} \cdot g^{\mu\nu}g^{\rho\sigma} - M_{\rho}^{2} \cdot g^{\mu\sigma}g^{\nu\rho} + 2M_{W}^{2} \cdot a^{2} \cdot g^{\mu\nu}g^{\rho\sigma} - M_{W}^{2} \cdot a^{2} \cdot g^{\mu\sigma}g^{\nu\rho}$
	$-M_{\rho}^{2} \cdot g^{\mu\rho}g^{\nu\sigma} - M_{W}^{2} \cdot a^{2} \cdot g^{\mu\rho}g^{\nu\sigma})$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ -\frac{\cos\theta_w^2 \cdot e^2}{\sin\theta_w^2 \cdot M_{\rho^2}} (2M_{\rho}^2 \cdot g^{\mu\nu}g^{\rho\sigma} - M_{\rho}^2 \cdot g^{\mu\rho}g^{\nu\sigma} - M_{\rho}^2 \cdot g^{\mu\sigma}g^{\nu\rho} + 2M_W^2 \cdot a^2 \cdot g^{\mu\nu}g^{\rho\sigma} $
	$-M_W^2 \cdot a^2 \cdot g^{\mu\rho} g^{\nu\sigma} - M_W^2 \cdot a^2 \cdot g^{\mu\sigma} g^{\nu\rho})$