

1. Dirac 正费米子 ψ 入射外线: $\psi, \lambda \xrightarrow{p} \bullet = u(\mathbf{p}, \lambda), \quad \psi, \lambda \xleftarrow{p} \bullet = \bar{v}(\mathbf{p}, \lambda).$

2. Dirac 反费米子 $\bar{\psi}$ 入射外线: $\bar{\psi}, \lambda \xrightarrow{p} \bullet = \bar{v}(\mathbf{p}, \lambda), \quad \bar{\psi}, \lambda \xleftarrow{p} \bullet = u(\mathbf{p}, \lambda).$

3. Dirac 正费米子 ψ 出射外线: $\bullet \xrightarrow{p} \psi, \lambda = \bar{u}(\mathbf{p}, \lambda), \quad \bullet \xleftarrow{p} \psi, \lambda = v(\mathbf{p}, \lambda).$

4. Dirac 反费米子 $\bar{\psi}$ 出射外线: $\bullet \xrightarrow{p} \bar{\psi}, \lambda = v(\mathbf{p}, \lambda), \quad \bullet \xleftarrow{p} \bar{\psi}, \lambda = \bar{u}(\mathbf{p}, \lambda).$

5. Majorana 费米子 χ 入射外线: $\chi, \lambda \xrightarrow{p} \bullet = u(\mathbf{p}, \lambda), \quad \chi, \lambda \xleftarrow{p} \bullet = \bar{v}(\mathbf{p}, \lambda).$

6. Majorana 费米子 χ 出射外线: $\bullet \xrightarrow{p} \chi, \lambda = \bar{u}(\mathbf{p}, \lambda), \quad \bullet \xleftarrow{p} \chi, \lambda = v(\mathbf{p}, \lambda).$

7. Dirac 费米子传播子: $\bullet \xrightarrow{p} \bullet = \frac{i(\not{p} + m_\psi)}{p^2 - m_\psi^2 + i\epsilon}, \quad \bullet \xleftarrow{p} \bullet = \frac{i(-\not{p} + m_\psi)}{p^2 - m_\psi^2 + i\epsilon}.$

8. Majorana 费米子传播子: $\bullet \xrightarrow{p} \bullet = \frac{i(\not{p} + m_\chi)}{p^2 - m_\chi^2 + i\epsilon}.$

9. Yukawa 相互作用顶点:

	$= i\kappa \Gamma_1,$		$= i\kappa \Gamma_2,$
	$= i\kappa \Gamma_1^C,$		$= i\kappa \Gamma_2^C.$