with all terms as denoted.

\[
\begin{align*}
\overline{\overline{\overline{A}} : \overline{B}} & = C, \\
\overline{\overline{\overline{A}} : \overline{B}} & = C
\end{align*}
\]
For the 2nd order interaction between charged fermions and the electromagnetic field,

\[
\left(\epsilon^{2}\frac{1}{2} \right) \int \int \int_{\infty}^{0} \frac{e^{2}}{e^{2} + P^{2}} \left[ \right. \left\{ \right. \frac{2}{(\epsilon^{2})} \left( \frac{\partial^{2}}{\partial x_{1}^{2}} \right) \left. \right\} \left. \right\} \left( \frac{\partial^{2}}{\partial x_{2}^{2}} \right) \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right\} \left. \right}
\[ \sum_{k=1}^{n} \theta_k = \begin{bmatrix} \mathbf{A}(x) \mathbf{w}^T \mathbf{A}(x) \mathbf{w} \end{bmatrix} \]
The individual terms in the sum \( \langle 0 | Q_0 | 0 \rangle \) each represent potential 2nd order interactions among 2 fermions and a photon. The Feynman graph techniques (Feynman, 1949) are amongst organizing techniques for the calculation of a 3 x 3 matrix.

I'll develop things first in an intuitive, pictographic way. The following rules are very useful and it will become clear at that point.

For an unpaired neuron \( v(x) \) or \( \bar{v}(x) \), we draw a line with an arrow to or from a vertex.

An unpaired \( A(x) \) is either (no arrow)
The connected terms, remember, are

\[ T<01A(x_1)A(x_2)10> = \alpha(x_1)\beta(x_2) \]

but only.

And

\[ T<01A(x_1)A(x_2)10> = \tilde{\psi}(x_1)\tilde{\psi}(x_2) \]

are non-zero. They are represented as connecting between space time points.

\[ \langle 01 \tilde{\psi}(x_1)\tilde{\psi}(x_2)10 \rangle = \langle 01A(x_1)A(x_2)10 \rangle = \langle 01\tilde{\psi}(x_1)\tilde{\psi}(x_2)10 \rangle \]

Now we can break down the 8 non-zero terms in the Dushman expansion and sketch a space time picture for each one. - recognizing potential physical processes as we go.
Local part of the electron Fermi surface terms:

\[
| \text{Type} > = | e \pm \theta > \\
|m_{\text{type}} > = | e \pm \theta >
\]

Summing over all \( e \) and \( \theta \),

\[
\text{where we can consider the classical component}
\]
\[ \begin{align*}
-\frac{\partial}{\partial t} \psi(x) & = \frac{i}{\hbar} \left[ H, \psi(x) \right] \\
& = \psi(x) \left( \hat{a}^\dagger + \hat{a} \right) \Theta \leq \psi(x) \right]
\end{align*} \]

From Eq. (5) we get the satisfaction of some unit to true in the photon number. The state \( \phi \) is

\[ \begin{align*}
0 = & \langle 0 | (\hat{a} + \hat{a}^\dagger) | 0 \rangle = \\
& \langle 0 | 1, 1 | 0 \rangle - \langle 0 | 0, 2 | 0 \rangle \\
& \langle 0 | 0, 0 | 0 \rangle \\
& \langle 0 | 1, 0 | 0 \rangle
\end{align*} \]

\[ \begin{align*}
0 = & \langle 0 | (\hat{a} + \hat{a}^\dagger) | 0 \rangle = \\
& \langle 0 | 0, 0 | 0 \rangle - \langle 0 | 1, 1 | 0 \rangle \\
& \langle 0 | 1, 0 | 0 \rangle
\end{align*} \]