

$$\frac{0}{\tilde{\sigma}^\mu} \Big| \begin{array}{c} \sigma^\mu \\ 0 \end{array} \begin{bmatrix} x \\ \mu \\ \tilde{\varphi}_\mu^* \end{bmatrix} = m \begin{bmatrix} x \\ \tilde{\varphi}_\mu^* \end{bmatrix}$$

$$\frac{0}{A \tilde{\sigma}_B^\mu} \Big| \begin{array}{c} A \sigma_B^\mu \\ 0 \end{array} \begin{bmatrix} x^B \\ \mu \\ \tilde{\varphi}_\mu^* \end{bmatrix} = m \begin{bmatrix} x^A \\ \tilde{\varphi}_\mu^* \end{bmatrix}$$

$$-m \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = \begin{matrix} x^B \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} B \\ \mu \end{matrix} \tilde{\sigma}_A^\mu = \begin{matrix} x^B \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} B \\ \mu \end{matrix} \tilde{\sigma}_A^\mu$$

$$A \tilde{\sigma}_B^\mu \begin{matrix} x^B \\ \tilde{\varphi}_\mu^* \end{matrix} - m \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} A \\ \mu \end{matrix} = 0$$

$$-m \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} B \\ \mu \end{matrix} \sigma_A^\mu = \begin{matrix} x \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} B \\ \mu \end{matrix} \sigma_A^\mu$$

$$A \sigma_B^\mu \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} - m \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = \begin{matrix} x^A \\ \tilde{\varphi}_\mu^* \end{matrix} \begin{matrix} * \\ \mu \end{matrix} = 0$$