

$$\begin{array}{ll}
\left\{ \begin{array}{l} \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} \\ \mu \end{array} \right. & \stackrel{\substack{\text{A} \\ \text{B}}}{{\mathbb H}} = -m^{\mathbf A} \\
& \stackrel{\mu}{{\mathbb H}} = {}^B_{\mathbb H}^* B \tilde{\sigma}_A^\mu
\end{array}$$

$$\begin{array}{ll}
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = -m^x \mathbf A \\
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = {}^x_{\mathbb H}^B B \tilde{\sigma}_A^\mu
\end{array}$$

$$\begin{array}{ll}
\left\{ \begin{array}{l} \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} \\ \mu \end{array} \right. & = -m^A_{\mathbb H} \\
& \stackrel{\mu}{{\mathbb H}} = {}^B_{\mathbb H}^* B \sigma_A^\mu
\end{array}$$

$$\begin{array}{ll}
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = -m^x \mathbb H^A \\
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = {}^x \mathbb H^B B \sigma_A^\mu
\end{array}$$

$$\left\{ \begin{array}{l} \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} \\ \mu \end{array} \right. & = {}^A_{\mathbb H} \tilde{\sigma}_B^\mu {}^B \mathbb H - m^* \mathbb H_A \\
& \stackrel{\mu}{{\mathbb H}} = 0
\end{array}$$

$$\begin{array}{ll}
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = {}^A_{\mathbb H} \tilde{\sigma}_B^\mu {}^B \mathbb H - m^x \mathbb H^A \\
x \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} & = \boxed{\begin{array}{c} x \text{A} \\ x \text{B} \\ \vdots \\ x \text{C} \end{array}} = 0
\end{array}$$

$$\left\{ \begin{array}{l} \boxed{\begin{array}{c} \text{A} \\ \text{B} \\ \vdots \\ \text{C} \end{array}} \\ \mu \end{array} \right. & = {}^A \sigma_B^\mu {}^B \mathbb H - m^A \mathbb H \\
& \stackrel{\mu}{{\mathbb H}} = 0
\end{math>$$

$$\begin{array}{c|c} 0 & \sigma^\mu \\ \hline \widetilde{\sigma}^\mu & 0 \end{array} \begin{bmatrix} {}^x \Psi_{\mu_-} \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-} \end{bmatrix} = m \begin{bmatrix} {}^x \Psi \\ {}^x \Psi^* \\ \vdots \\ {}^x \Psi \end{bmatrix}$$

$$\begin{array}{c|c} 0 & {}^A \sigma_B^\mu \\ \hline {}^A \widetilde{\sigma}_B^\mu & 0 \end{array} \begin{bmatrix} {}^x \Psi_{\mu_-}^B \\ {}^x \Psi_{\mu_-}^B \\ \vdots \\ {}^x \Psi_{\mu_-}^B \end{bmatrix} = m \begin{bmatrix} {}^x \Psi_A \\ {}^x \Psi_A^* \\ \vdots \\ {}^x \Psi_A \end{bmatrix}$$

$$-m {}^x \Psi_A = \begin{bmatrix} {}^x \Psi_{\mu_-} \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-} \end{bmatrix}_A = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-} \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-} \end{bmatrix}}_\mu^\mu = \underbrace{{}^x \Psi_{\mu_-}^B}_{\mu} {}^B \widetilde{\sigma}_A^\mu = {}^x \Psi_{\mu_-}^B {}^B \widetilde{\sigma}_A^\mu$$

$${}^A \widetilde{\sigma}_B^\mu {}^x \Psi_{\mu_-}^B - m {}^x \Psi_A^* = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-}^* \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^* \end{bmatrix}}_\mu = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-}^* \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^* \end{bmatrix}}_\mu^\mu = 0$$

$$-m {}^x \Psi_{\mu_-}^A = \begin{bmatrix} {}^x \Psi_{\mu_-}^A \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^A \end{bmatrix}_* = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-}^A \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^A \end{bmatrix}}_\mu^\mu = \underbrace{{}^x \Psi_{\mu_-}^B}_{\mu} {}^B \sigma_A^\mu = {}^x \Psi_{\mu_-}^B {}^B \sigma_A^\mu$$

$${}^A \sigma_B^\mu {}^x \Psi_{\mu_-}^B - m {}^x \Psi_{\mu_-}^A = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-}^A \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^A \end{bmatrix}}_\mu = \underbrace{\begin{bmatrix} {}^x \Psi_{\mu_-}^A \\ {}^x \Psi_{\mu_-}^* \\ \vdots \\ {}^x \Psi_{\mu_-}^A \end{bmatrix}}_\mu^\mu = 0$$