In the beginning, there was nothing. Then, there was

$$\mathcal{L} = -\frac{1}{4}F_{\mu\nu}F^{\mu\nu}$$
$$+i\overline{\psi}D\psi + h.c.$$
$$+\overline{\psi}_i y_i j \psi_j \phi + h.c.$$
$$+|D_\mu \phi|^2 - V(\phi).$$

(1)

Now, before we get too far ahead of ourselves, let us take the time to understand *where* Eq. 1, known as the Standard Model Lagrangian, comes from and what it represents. This chapter will be dedicated to this endeavour.