Higher Dimensional Operators in EFT's

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An Effective Field Theory (EFT) has a finite number of parameters for given energy scale, E, and accuracy, ϵ.

- For each set of interactions of some dimension $D = k - 4$, there are a fininte number of parameters that describe the set of interactions.
- The coefficient of terms with dimension $k - 4$ are proportional to:

$$\left(\frac{E}{M}\right)^k$$

- This means we only need to include terms up to dimension $k^* - 4$ such that

$$\left(\frac{E}{M}\right)^{k^*} \approx \epsilon$$