

# Le Lagrangien T0

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2025

# Chapter 1

## Le Lagrangien T0

### 1.1 Introduction

Le Lagrangien est la fonction centrale de la mécanique classique et de la théorie des champs.

### 1.2 Lagrangien classique

$$L = T - V = \frac{1}{2}m\dot{x}^2 - V(x) \quad (1.1)$$

### 1.3 Lagrangien du Modèle Standard

$$\mathcal{L}_{SM} = \mathcal{L}_{jauge} + \mathcal{L}_{Higgs} + \mathcal{L}_{fermions} + \mathcal{L}_{Yukawa} \quad (1.2)$$

**title**

Le Lagrangien T0 ajoute un terme  $\xi$  :

$$\mathcal{L}_{T0} = \mathcal{L}_{SM} + \mathcal{L}_{\xi} \quad (1.3)$$

### 1.4 Terme $\xi$

$$\mathcal{L}_{\xi} = -\frac{1}{2}\partial_{\mu}\phi_{\xi}\partial^{\mu}\phi_{\xi} - V(\phi_{\xi}) \quad (1.4)$$

où  $\phi_{\xi}$  est le champ  $\xi$ .

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