

Constante Gravitationnelle

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2025

Chapitre 1

Constante Gravitationnelle

1.1 Introduction

La constante gravitationnelle G est l'une des constantes fondamentales les moins bien mesurées. La théorie T0 offre une dérivation de G à partir du paramètre ξ .

1.2 Valeur expérimentale

$$G = 6,674 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2} \quad (1.1)$$

1.3 Dérivation T0

Dans la théorie T0, G est liée à ξ par :

$$G = \frac{\hbar c}{m_P^2} = f(\xi) \quad (1.2)$$

title

La constante gravitationnelle émerge de la géométrie du champ ξ :

$$G \cdot \xi = \text{constante dimensionnelle} \quad (1.3)$$

1.4 Masse de Planck

La masse de Planck :

$$m_P = \sqrt{\frac{\hbar c}{G}} \approx 2,18 \times 10^{-8} \text{ kg} \quad (1.4)$$

Dans la théorie T0, cette masse est liée au paramètre ξ par :

$$m_P = \xi^{-n} \cdot m_e \quad (1.5)$$

1.5 Implications

1. Unification de la gravitation et de la mécanique quantique
2. Explication de la faiblesse de la gravitation
3. Prédiction de nouveaux effets gravitationnels

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