

Introduction à la Théorie T0

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Chapitre 1

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Introduction

Ce livre présente l'état actuel du cadre de dualité temps-masse T0 et ses applications aux masses des particules, aux constantes fondamentales, à la mécanique quantique, à la gravitation et à la cosmologie.

La partie principale du livre consiste en une série de documents centraux T0. Ces chapitres reflètent la compréhension actuelle de la théorie et de ses conséquences quantitatives. Dans la mesure du possible, le matériel a été réorganisé et unifié afin que la structure de la théorie soit aussi transparente que possible.

À la fin du livre, plusieurs documents plus anciens sont inclus dans une annexe. Ces textes représentent des stades antérieurs du développement du cadre T0. Ils n'ont pas été supprimés car ils rendent visible l'évolution des idées et le raffinement des formules. Dans de nombreux cas, on peut voir comment les approximations ont été améliorées, comment les cas spéciaux ont été généralisés et comment de nouvelles données empiriques ont contribué à affiner ou corriger les arguments antérieurs.

La version «live» de la théorie est maintenue dans un dépôt GitHub public :

<https://github.com/jpascher/T0-Time-Mass-Duality>

Les sources LaTeX des chapitres de ce livre proviennent de ce dépôt. Si des erreurs conceptuelles ou numériques sont trouvées, elles seront d'abord corrigées là-bas. Cela signifie que la version PDF du livre que vous lisez est un instantané d'un projet en évolution continue. Pour la version la plus récente des documents, y compris les nouvelles annexes ou corrections, le dépôt GitHub devrait toujours être considéré comme la référence principale.

L'intention de cette compilation est double :

- offrir un chemin cohérent et lisible à travers les idées et résultats centraux du cadre T0 ;
- documenter dans l'annexe le développement historique de ces idées, y compris les faux départs, les formulations intermédiaires et les premiers ajustements aux données expérimentales.

1.1 Le Cadre T0 : Aperçu

Le cadre T0 est basé sur une idée simple mais profonde : le temps et la masse sont duaux l'un à l'autre. Cette dualité est exprimée par le paramètre fondamental ξ , qui quantifie la force du couplage temps-masse.

1.1.1 Le Paramètre Fondamental ξ

Le paramètre central de la théorie T0 est :

$$\xi = \frac{4}{3} \times 10^{-4} \approx 1,333 \times 10^{-4} \quad (1.1)$$

Ce paramètre apparaît dans toutes les prédictions de la théorie et relie des phénomènes apparemment sans rapport entre eux.

1.1.2 Concepts Fondamentaux

title

La théorie T0 unifie :

- Les masses des particules par des facteurs géométriques
- Les constantes fondamentales par le paramètre ξ
- La mécanique quantique et la gravitation par la dualité temps-masse

1.2 Structure de ce Livre

Le livre est structuré comme suit :

1. **Fondamentaux** : Bases mathématiques et cadre théorique
2. **Physique des Particules** : Applications aux masses des leptons et aux moments magnétiques anomaux
3. **Cosmologie** : Implications cosmologiques et tests
4. **Annexes** : Documents historiques et détails techniques

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