

# Cosmologie Géométrique

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# Chapter 1

## Cosmologie Géométrique

### 1.1 Introduction

La cosmologie géométrique étudie la structure à grande échelle de l'univers. La théorie T0 offre une approche géométrique unifiée.

### 1.2 Géométrie de l'univers

Trois géométries possibles :

1. Plate ( $k = 0$ )
2. Sphérique ( $k > 0$ )
3. Hyperbolique ( $k < 0$ )

#### title

Dans T0, la géométrie est déterminée par le champ  $\xi$  :

$$R = f(\xi) \tag{1.1}$$

où  $R$  est le rayon de courbure.

### 1.3 Courbure et matière

L'équation de Friedmann modifiée :

$$H^2 + \frac{k}{a^2} = \frac{8\pi G}{3}\rho + \Lambda_\xi \tag{1.2}$$

où  $\Lambda_\xi$  est la contribution du champ  $\xi$ .

### 1.4 Structure fractale

L'univers T0 a une structure fractale à toutes les échelles.

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