

# Processus de Markov

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# Chapter 1

## Processus de Markov

### 1.1 Introduction

Les processus de Markov sont des modèles stochastiques où l'état futur ne dépend que de l'état présent.

### 1.2 Définition

Un processus de Markov satisfait :

$$P(X_{n+1}|X_n, X_{n-1}, \dots) = P(X_{n+1}|X_n) \quad (1.1)$$

#### title

Les fluctuations quantiques du champ  $\xi$  peuvent être modélisées comme un processus de Markov.

### 1.3 Chaînes de Markov

Les transitions entre états sont décrites par une matrice :

$$P = \begin{pmatrix} p_{11} & p_{12} \\ p_{21} & p_{22} \end{pmatrix} \quad (1.2)$$

### 1.4 Évolution quantique

Dans la théorie T0, l'évolution des états quantiques suit :

$$\rho(t + dt) = M(\xi) \cdot \rho(t) \quad (1.3)$$

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