

# QUANTUM FIELD THEORY IN DE SITTER SPACETIME

*by*

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## **Lecture 1**

DeSitter basics : different coordinate patches, horizons, ... ; propagators for free scalar field in deSitter spacetime.

## **Lecture 2**

Wick rotation ; cosmic no hair theorem for propagators ; Unruh effect ; Feynman rules for interacting quantum field theories in deSitter spacetime, loop integrals (time permitting).

## **Lecture 3**

Basics of entanglement ; entanglement across deSitter horizons ; speculative ideas.