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# Hunting for new physics in the primordial Universe

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# Hunting for New Physics in the Primordial Universe

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in 1991

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The cover is a sketch of the primordial era of the Universe. Time evolves from bottom to top. In chronological order, it shows the inflation stage, temperature anisotropies in the cosmic microwave background (image taken from the legacy release of the Planck satellite), and the formation of large scale structures (galaxy distribution image taken from the website of the Millennium Simulation Project). Examples of the new physics effects studied in this thesis are depicted by scalar field potentials, trajectories and a curved field space, while various Feynman diagrams correspond to some interesting physical processes during inflation.
The back cover is the first four lines of *Inquiries of Heaven* by Qu Yuan, a Chinese poet who lived during the Warring States period around 2300 years ago. The calligraphy was performed by Wang Chunliang, with the help of Wang Hongling.

*To my parents*

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