## Amplitude Calculation for Inflaton, Reheaton, and Graviton

Quan-feng WU\*

Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100049, China

March 1,  $2025^{\dagger}$ 

## Abstract

In this Git repository<sup>1</sup>, the amplitude calculations for the inflaton, reheaton, and graviton are presented. The technical details are presented in this note, and the reproducible WOLFRAM MATHEMATICA notebooks are available in the directory of Mathematica\_notebooks/<sup>2</sup>. This note and this Git repository are the supplementary materials for the paper TBD: arXiv:2503:xxxxxx. If it is helpful for your research, please cite the paper<sup>3</sup>.

## Contents

<sup>\*</sup>E-mail: wuquanfeng@ihep.ac.cn

<sup>†</sup>This note © 2024 by Quan-feng WU is licensed under CC BY-NC-ND 4.0. @ 189

<sup>&</sup>lt;sup>1</sup>https://github.com/Fenyutanchan/amplitude-for-inflaton-reheaton-graviton

<sup>&</sup>lt;sup>2</sup>All of the Wolfram Mathematica notebooks are licensed under the MIT License.

<sup>&</sup>lt;sup>3</sup>It would be greatly appreciated if the reader cite this Git repository explicitly as well (see README.md for the citation information).