

PrimordialPy: a Python library for computing primordial power spectrum and PBHs abundances in single-field inflation

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Abstract

PrimordialPy is a Python library that

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¹²

¹⁴ 1 Introduction

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¹⁶ into sections with short descriptive titles, including an introduction and a conclusion.

¹⁷ 2 Physics of single-field inflation

¹⁸ Use sections to structure your article's presentation.

19 Equations should be centered; multi-line equations should be aligned.

$$H = \sum_{j=1}^N \left[J(S_j^x S_{j+1}^x + S_j^y S_{j+1}^y + \Delta S_j^z S_{j+1}^z) - h S_j^z \right]. \quad (1)$$

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22 preprint [2], please include authors, title (please ensure proper capitalization) and arXiv link.
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61 [1] H. A. Bethe, *Zur Theorie der Metalle. i. Eigenwerte und Eigenfunktionen der linearen Atom-*
62 *kette*, Zeit. für Physik **71**, 205 (1931), doi:[10.1007/BF01341708](https://doi.org/10.1007/BF01341708).

63 [2] P. Ginsparg, *It was twenty years ago today ...*, <http://arxiv.org/abs/1108.2700>.