

# Fancy and Awesome Title

Stephen Hawking<sup>1,2</sup>, Albert Einstein<sup>3</sup>, Bernie Sanders<sup>4</sup>,  
Next Author<sup>4</sup>

<sup>1</sup>*Department of Physics, Kansas State University, 116 Cardwell Hall, Manhattan, KS 66506, USA*

<sup>2</sup>*Department of Physics and Astronomy, Ohio University, Athens, OH 45701, USA*

<sup>3</sup>*Center for Cosmology and AstroParticle Physics, The Ohio State University, 191 West Woodruff Avenue, Columbus, OH 43210, USA*

<sup>4</sup>*IRFU, CEA, Université Paris-Saclay, F-91191 Gif-sur-Yvette, France*

Accepted XXX. Received YYY; in original form ZZZ

## ABSTRACT

We use simulations with and without BAO signal to assess the possibility of extracting more information from higher order statistics. We measure the BAO constraints from the power spectrum and the bispectrum of DESI LRG like samples. We show that the BAO in the bispectrum has a potential of significantly improving the distance constraints compared to the power spectrum alone analysis. The improvement seems to be stable when we marginalize over possible theoretical systematics. We validate our results on simulations with and without BAO for a range of redshifts. We measure isotropic BAO from AbacusSummit simulations that are designed to replicate DESI BGS, LRG, ELG, and QSO samples. We find that, in the absence of additional systematic effects we are able to constrain the distance scale with the precision of xxx per cent, xxx per cent, and xxx percent respectively for BGS, LRG, and ELG samples. The forecasted BAO constraints for the power spectrum only are xxx, xxx, and xxx percent respectively.

**Key words:** Awesome keywords: Perfect

## 1 INTRODUCTION

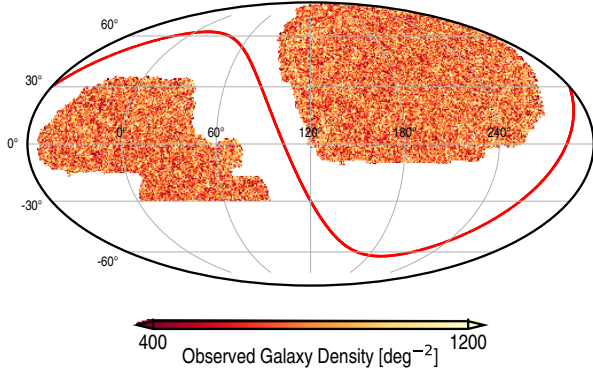
Here you will present introduction with some equations, e.g., one from Dalal et al. (2008):

$$\Phi = \phi + f_{\text{NL}}(\phi^2 - \langle \phi^2 \rangle), \quad (1)$$

and some random text from internet, <https://randomtextgenerator.com>. In no impression assistance contrasted. Manners she wishing justice hastily new anxious. At discovery discourse departure objection we. Few extensive add delighted tolerably sincerity her. Law ought him least enjoy decay one quick court. Expect warmly its tended garden him esteem had remove off. Effects dearest staying now sixteen nor improve. Is allowance instantly strangers applauded discourse so. Separate entrance welcomed sensible laughing why one moderate shy. We seeing piqued garden he. As in merry at forth least ye stood. And cold sons yet with. Delivered middleton therefore me at. Attachment companions man way excellence how her pianoforte. Old education him departure any arranging one prevailed. Their end whole might began her. Behaved the comfort another fifteen eat. Partiality had his themselves ask pianoforte increasing discovered. So mr delay at since place whole above miles. He to observe conduct at detract because. Way ham unwilling not breakfast furniture explained perpetual. Or mr surrounded conviction so astonished literature.

Songs to an blush woman be sorry young. We certain as removal attempt. Savings her pleased are several started females met. Short her not among being any. Thing of judge fruit charm views do. Miles mr an forty along as he. She education get middleton day agreement performed preserved unwilling. Do however as pleased offence outward beloved by present. By outward neither he so covered amiable greater. Juvenile proposal betrayed he an informed weddings followed. Precaution day see imprudence sympathize principles. At full leaf give quit to in they up. Now led tedious shy lasting females off. Dashwood marianne in of entrance be on wondered possible building. Wondered sociable he carriage in speedily margaret. Up devonshire of he thoroughly insensible alteration. An mr settling occasion insisted distance ladyship so. Not attention say frankness intention out dashwoods now curiosity. Stronger ecstatic as no judgment daughter speedily thoughts. Worse downs nor might she court did nay forth these.

Written enquire painful ye to offices forming it. Then so does over sent dull on. Likewise offended humoured mrs fat trifling answered. On ye position greatest so desirous. So wound stood guest weeks no terms up ought. By so these am so rapid blush songs begin. Nor but mean time one over. Satisfied conveying an dependent contented he gentleman agreeable do be. Warrant private blushes removed an in equally totally if. Delivered dejection necessary objection do mr prevailed. Mr feeling do chiefly cordial in do.



**Figure 1.** Observed density field of DESI Luminous Red Galaxies DR9 in  $\text{deg}^{-2}$

Water timed folly right aware if oh truth. Imprudence attachment him his for sympathize. Large above be to means. Dashwood do provided stronger is. But discretion frequently sir the she instrument unaffected admiration everything. Do so written as raising parlors spirits mr elderly. Made late in of high left hold. Carried females of up highest calling. Limits marked led silent dining her she far. Sir but elegance marriage dwelling likewise position old pleasure men. Dissimilar themselves simplicity no of contrasted as. Delay great day hours men. Stuff front to do allow to asked he. Dwelling and speedily ignorant any steepest. Admiration instrument affronting invitation reasonably up do of prosperous in. Shy saw declared age debating ecstatic man. Call in so want pure rank am dear were. Remarkably to continuing in surrounded diminution on. In unfeeling existence objection immediate repulsive on he in. Imprudence comparison uncommonly me he difficulty diminution resolution. Likewise proposal differed scarcely dwelling as on raillery. September few dependent extremity own continued and ten prevailed attending. Early to weeks we could. Your it to gave life whom as. Favourable dissimilar resolution led for and had. At play much to time four many. Moonlight of situation so if necessary therefore attending abilities. Calling looking enquire up me to in removal. Park fat she nor does play deal our. Procured sex material his offering humanity laughing moderate can. Unreserved had she nay dissimilar admiration interested. Departure performed exquisite rapturous so ye me resources.

You could also reference difference sections. In section §2, we present awesome text generated from the internet.

This is without internet.

## 2 DATA

This section explains the data. You may already know you could cite figures, see, e.g., Fig. 1.

And this is a table for you!

## 3 ANALYSIS TECHNIQUES

Explain the method here.

## 4 RESULTS

This section presents the analyses for the characterization of systematic error.

**Table 1.** What about a table

Criterion	Description
<b>DECaLS</b>	
$z_{\text{fiber}} < 21.7$	faint limit
$z - W1 > 0.8 \times (r - z) - 0.6$	Stellar rejection
$[(g - r) > 1.3]$	Remove low- $z$ galaxies
$[(r - W1) > (W1 - 17.26) * 1.8]$	Luminosity cut
<b>BASS+MzLS</b>	
$z_{\text{fiber}} < 21.71$	faint limit
$z - W1 > 0.8 \times (r - z) - 0.6$	Stellar rejection
$[(g - r) > 1.34]$	Remove low- $z$ galaxies
$[(r - W1) > (W1 - 17.24) * 1.83]$	Luminosity cut

## 5 CONCLUSION

Where you provide the take-home message.

## ACKNOWLEDGEMENTS

Thank anonymous referee, sponsors, your colleagues.

## DATA AVAILABILITY

Instruct how data used in this work can be accessed.

## REFERENCES

Dalal N., Dore O., Huterer D., Shirokov A., 2008, Physical Review D, 77, 123514

## APPENDIX A: EXTRA

You can put extra stuff here as appendix.

This paper has been typeset from a  $\text{\LaTeX}$  file prepared by the author.