# Investigating the Gaussianity of Supernova SALT2 Summary Statistics

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Accepted XXX. Received YYY; in original form ZZZ

## ABSTRACT

Write an abstract.

## 1 INTRODUCTION

Few sentences on cosmology.

Use of supernova in cosmology.

SALT2.

Previous studies using summary statistics and their data sets.

Assumed gaussianity.

DES supernova (segue to precision)

Precision measurements, systematics more important than ever

Thus motivation

# 2 NEXT SECTION

Think of section title

Supernova models, summary statistics, why they are used (instead of light curve data), and the fitting methodologies that have been used in the past to get summary statistics.

## 3 NEXT SECTION

to investigate, go to lowest level and simulate light curves

to start with, realise only canonical supernova from abs mag with some scatter, using WMAP9 cosmology. Do this for shallow and deep fields, and fit the light curves using different methods.

 $compare\ the\ different\ methods$ 

section detailing the bias as a function of redshift (and ston if possible).

# 4 CONCLUSIONS

The last numbered section should briefly summarise what has been done, and describe the final conclusions which the authors draw from their work.

## ACKNOWLEDGEMENTS

The Acknowledgements section is not numbered. Here you can thank helpful colleagues, acknowledge funding agencies, telescopes and facilities used etc. Try to keep it short.

## APPENDIX A: SOME EXTRA MATERIAL

If you want to present additional material which would interrupt the flow of the main paper, it can be placed in an Appendix which appears after the list of references.

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