Constraining M_ν with the Bispectrum II: the Information Content of the Galaxy Bispectrum

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ABSTRACT

Keywords: cosmology: —

1. INTRODUCTION

intro goes here

2. SIMULATIONS

Very brief description of the simulations. Just highlight the numbers

3. HALO OCCUPATION DISTRIBUTION

We're interested in quantifying the information content of the galaxy bispectrum. With a perturbation theory approach, this would involve incorporating a bias model for galaxies (*e.g.* **???**). Instead, for our simulation driven approach, we use the halo occupation distribution (HOD) framework (*e.g.* **?????**). The HOD model specifies how

- description of HODs in general and how we're going to use them our bias model. This is the framework used to construct simulated mock catalogs and used ubiquitously in galaxy clustering analyses. Moreover, it's used for emulator set ups (Aemulus), which as we mention earlier is the only hopes for accurately modeling the high k.

- We use the standard **?** model, which has been used extensively. Discuss the obvious shortcomings of the model. However, **?** did not find strong evidence for assembly bias and we're going for simplicity here.

- description of the halo mass constraints we're dealing with and how this prevents us from directly using best-fit HOD parameters from the literature. In fact, due to this constraint we modify the HOD parameters.

- plots showing how our HOD choice compares to HODs of the SDSS samples. Some handwavy arguments about how it shouldn't matter too much.

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4. RESULTS

5. SUMMARY

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APPENDIX

REFERENCES