

## HD106906 Working Papers

YIFAN ZHOU<sup>1</sup>

<sup>1</sup>*Steward Observatory*

### ABSTRACT

This documents keep the main result for *Cloud Atlas* HD106906b ([Bailey et al. 2013](#)) observations.

### 1. INTRODUCTION

HD106906b is a mid-L type planetary mass companion ([Bailey et al. 2013](#)).

### 2. OBSERVATIONS

We observed HD106906b in

### 3. DATA REDUCTIONS

### 4. RESULTS

### 5. DISCUSSION

1. the variability
2. SED for HD106906, further determine its spectral type
3. the limit on the inclination (see [Vos et al. 2018](#))
4. possible astrometry constrains (what about the distortion correction for WFC3)
5. limit on additional companions
6. lack of large amplitude detection for planetary mass companions.

For the last point, take the variability occurrence rate from ([Vos et al. 2018](#); [Metchev et al. 2015](#)), test whether the low mass companions' variability occurrence rate agree with the low surface gravity field objects

### REFERENCES

Bailey, V., Meshkat, T., Reiter, M., et al.

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2015, [ApJ](#), 799, 154
- Vos, J. M., Allers, K. N., Biller, B. A., et al.  
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