

Radial Velocity Upper Limits on Planets around Aurora Candidates GJ 1151 and GJ 412A

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ABSTRACT

We don't find a star or giant planet around GJ 1151 or GJ 412A but we cannot rule out anything below $5 M_{\oplus}$.

We infer a high resolution spectrum of GJ 1151 which is pretty cool. 

1. INTRODUCTION

Vedantham et al (submitted) have detected GJ 1151 at low radio frequencies with LOFAR, indicating a possible star-planet magnetic interaction analogous to Jupiter-Io.

2. HARPS RV DATA

3. DISCUSSION

4. CONCLUSIONS

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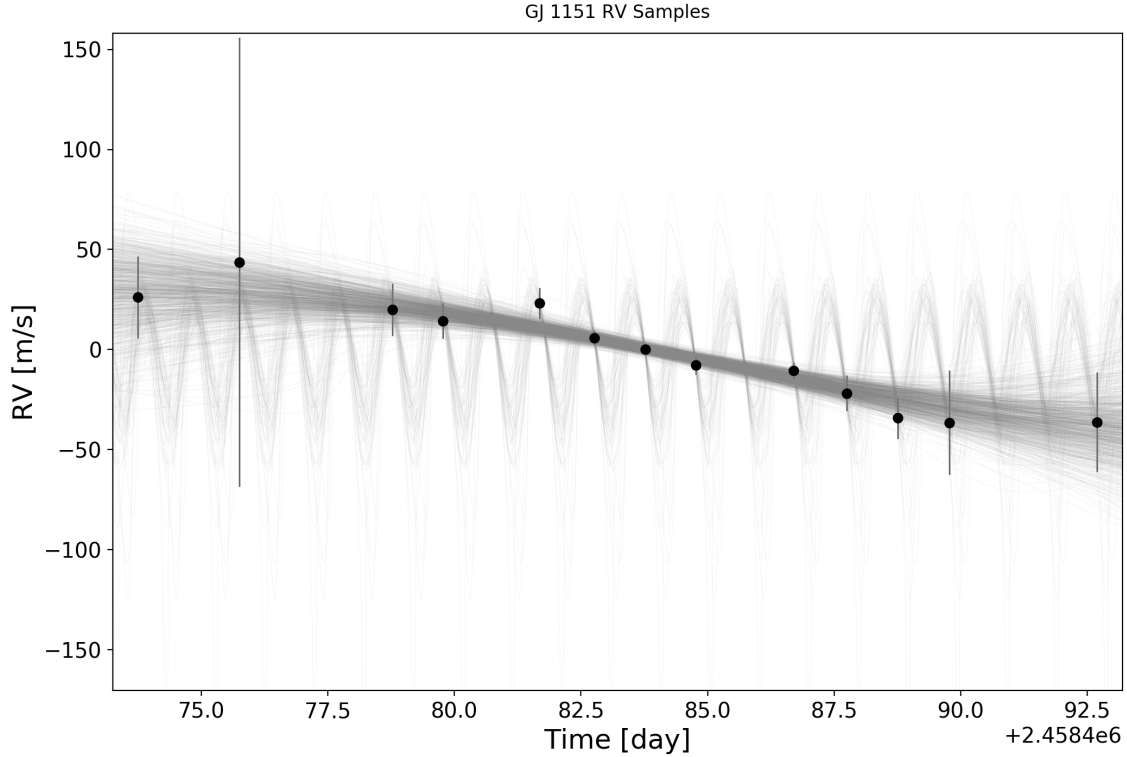


Figure 1. The Joker posterior samples.

BJSP acknowledges being on the traditional territory of the Lenape Nations and recognizes that Manhattan continues to be the home to many Algonkian peoples. We give blessings and thanks to the Lenape people and Lenape Nations in recognition that we are carrying out this work on their indigenous homelands.

This research made use of NASA’s Astrophysics Data System; the SIMBAD database, operated at CDS, Strasbourg, France; the IPython package (Pérez & Granger 2007); SciPy (Jones et al. 2001); and Astropy, a community-developed core Python package for Astronomy (Astropy Collaboration et al. 2013). Some of the data presented in this paper were obtained from the Mikulski Archive for Space Telescopes (MAST). STScI is operated by the Association of Universities for Research in Astronomy, Inc., under NASA contract NAS5-26555. Support for MAST for non-HST data is provided by the NASA Office of Space Science via grant NNX13AC07G and by other grants and contracts.

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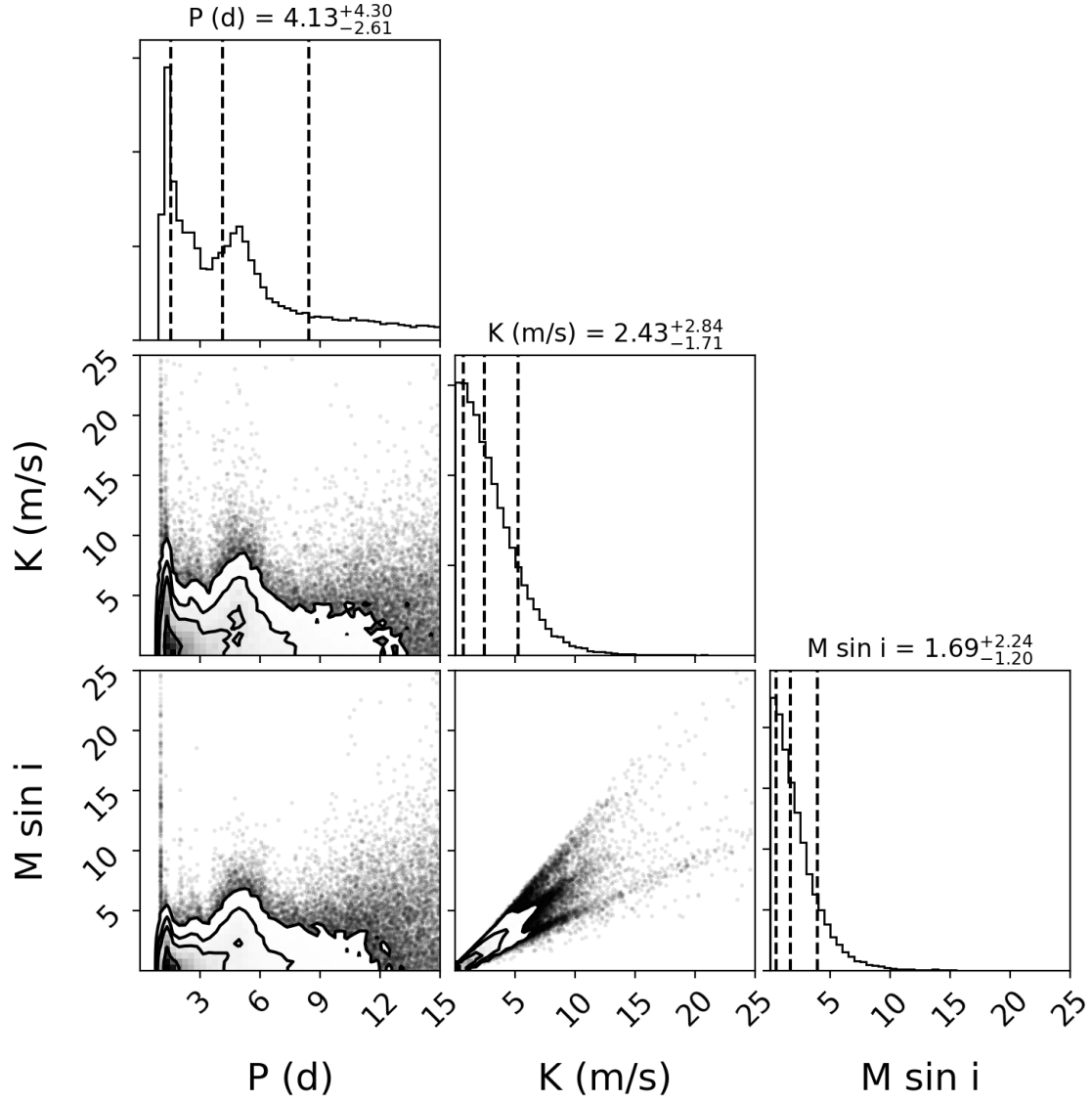


Figure 2. Cornerplot of posterior from The Joker.

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Computing in Science and Engineering,
9, 21, doi: [10.1109/MCSE.2007.53](https://doi.org/10.1109/MCSE.2007.53)

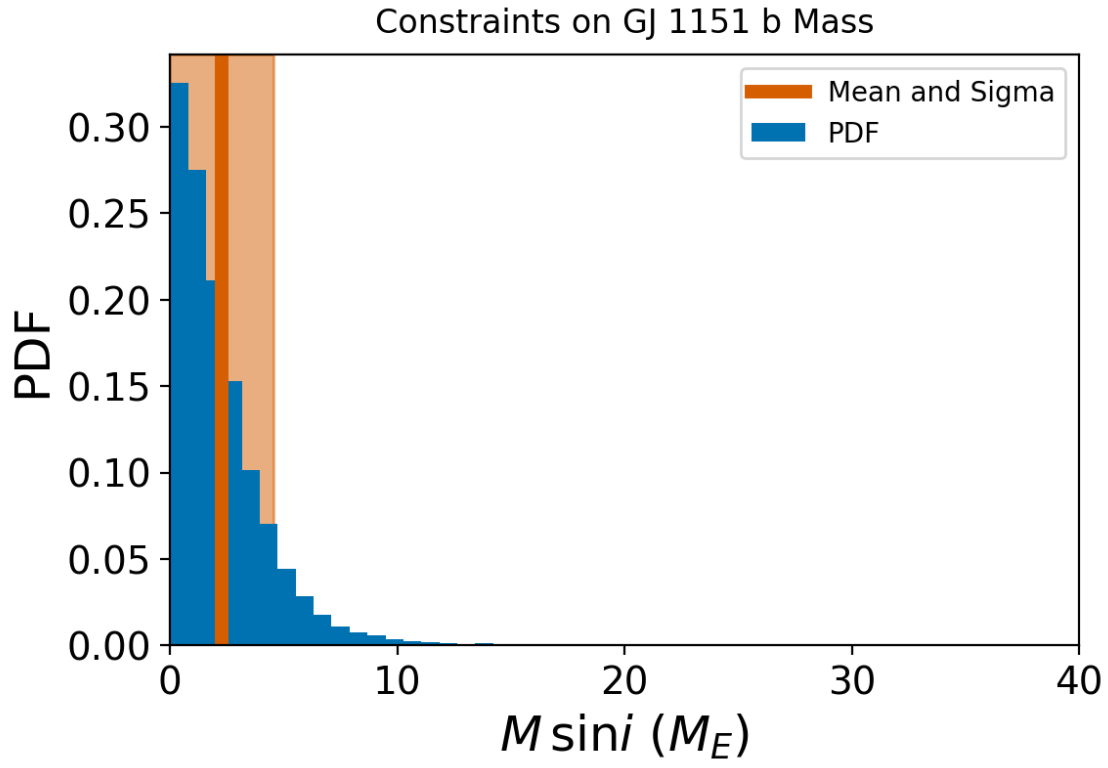


Figure 3. Planet mass posterior.