Report for AST4723
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INSERT TITLE HERE

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Report for AST4723

ABSTRACT

This project was undertaken for this reason and what we found was...

1. INTRODUCTION

The introduction should contain sufficient background on the topic of your research that the reader understands what you are doing and why. It is important here and elsewhere in the paper to cite references when appropriate. While one can do this manually – e.g (Vollbach et al. 1997), the easiest was to do this is with bibtex and the cite commands, because this automatically updates the references in both the text and the reference list at the end. For example, you can put the reference **?**, or if you want it in line rather than in braces, then **?**. To compile the documents you must then also have a .bib file (e.g. ast4723.bib) that contains the ADS bibtex entry, with the article name given as hamann2008, as in the example with this document. The document are then compiled by typing:

bibtex ast4723 latex ast4723.tex ; dvips -o ast4723.ps ast4723.dvi latex ast4723.tex ; dvips -o ast4723.ps ast4723.dvi

Mote that you have to latex it twice after adding references for all the references to get updated. The following examples of sections are intended to provide a rough guideline for how you may wish to structure your paper. You are not required to maintain this format, but should use a similar, sensible approach.

You may need to have emulateapj.cls in the same directory as your document.

2. OBSERVATIONS

In this section you should describe your observations. Look at a real paper (or at least the sample.tex file with emulateapj) to get an idea for what is appropriate in this section. Be sure to include information about what nights you observed and any key issues related to your data quality. If you are using archival data, then you should describe when the data was originally obtained and still describe things such as the instrument and telescope.

3. DATA REDUCTIONS

This section is your chance to describe everything that you did to process your data. List clearly how you reduced the data and did the photometry. If you wish to divide this into subsections, you can do so as illustrated below.

3.1. *Bias Subtraction and Flatfielding*

To subtract the bias, we...

3.2. *Really weird stuff that I had to do for my data*

There was a bad region shaped like a parrot in the middle of the detector, which required...

3.3. *Image Stacking*

We aligned the images using...

3.4. *Photometric Calibration*

4. DATA ANALYSIS

This section should describe the scientific analysis done for your project. If you are making a light curve for example, here is where you would describe how you made it and what you measured. Remember that your write-up should contain figures, such as Figure **??**. Note that this reference to the figure is collected to a label in the figure caption, so if you add others the number will automatically update

5. RESULTS AND DISCUSSION (CAN EASILY BE SEPARATE SECTIONS)

Fairly self explanatory. You should think carefully about what your results mean. Speculation is good, but it should be grounded in the data – wild speculation is bad. If you want to add any equations in the text, this can be done in the fashion below. Note that the online latex references, including the ones linked off the web page, provide the necessary information for constructing more complex equations. If you want to include equation symbols inline in the text, then you place them between dollar signs, as shown below.

Consider the equation

$$\bar{v} = \exp(\tau^{-1}) \tag{1}$$

where $\bar{v}$ is the mean velocity of a purple balloon, and τ is the mean free path of the balloon. If we have a velocity $\bar{v} = 5 \pm 1$ km s^{-1}, what is τ?

yourname@astro.ufl.edu

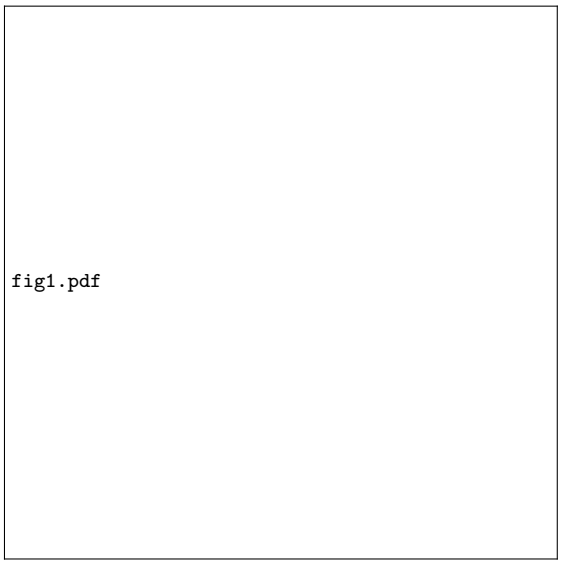

FIG. 1.— An example of a figure included in the text.

One last item that we have not discussed is tables. There is an example in this document in Table **??**, which is the same as in sample.tex.

Anyone whom you would like to thank would go in this section (not required).

APPENDIX

APPENDIX MATERIAL

If you want to go into a lot of detail about something that you feel doesn't belong in the main part of the paper, this would be the place to do it.

For this document, I will simply note that for the bibliographies, the manual way of including a bibliography is

```
\begin{thebibliography}{}
\bibitem[Auri\‘ere(1982)]{aur82} Auri\‘ere, M.  1982, \aap,
    109, 301
\bibitem[Canizares et al.(1978)]{can78} Canizares, C. R.,
    Grindlay, J. E., Hiltner, W. A., Liller, W., \&
    McClintock, J. E.  1978, \apj, 224, 39
\bibitem[Djorgovski \& King(1984)]{djo84} Djorgovski, S.,
    \& King, I. R.  1984, \apjl, 277, L49
\bibitem[Hagiwara \& Zeppenfeld(1986)]{hag86} Hagiwara, K., \&
    Zeppenfeld, D.  1986, Nucl.Phys., 274, 1
\bibitem[Harris \& van den Bergh(1984)]{har84} Harris, W. E.,
    \& van den Bergh, S.  1984, \aj, 89, 1816
\bibitem[King(1966)]{kin66}  King, I. R.  1966, \aj, 71, 276
\bibitem[Ortolani et al.(1985)]{ort85} Ortolani, S., Rosino, L.,
    \& Sandage, A.  1985, \aj, 90, 473
\bibitem[Peterson(1976)]{pet76} Peterson, C. J.  1976, \aj, 81, 617
\end{thebibliography}
```

while the automated way, assuming that you have generated a .bib file is

```
\bibliographystyle{apj}
\bibliography{ast4723}
```

which for the file ast4723.bib and this tex file generates the reference list seen below. A nice aspect of this approach is that if you don't use a reference in the paper it automatically gets removed from the reference list at the end. The one additional file that you need to have for this approach is apj.bst, which is posted on the web page.

TABLE 1
Sample table taken from **?**

POS	chip	ID	X	Y	RA	DEC	IAU± δ IAU	IAP1± δ IAP1	IAP2 ± δ IAP2	star	E	Comment
0	2	1	1370.99	57.35	6.651120	17.131149	21.344±0.006	2 4.385±0.016	23.528±0.013	0.0	9	-
0	2	2	1476.62	8.03	6.651480	17.129572	21.641±0.005	2 3.141±0.007	22.007±0.004	0.0	9	-
0	2	3	1079.62	28.92	6.652430	17.135000	23.953±0.030	2 4.890±0.023	24.240±0.023	0.0	-	-
0	2	4	114.58	21.22	6.655560	17.148020	23.801±0.025	2 5.039±0.026	24.112±0.021	0.0	-	-
0	2	5	46.78	19.46	6.655800	17.148932	23.012±0.012	2 3.924±0.012	23.282±0.011	0.0	-	-
0	2	6	1441.84	16.16	6.651480	17.130072	24.393±0.045	2 6.099±0.062	25.119±0.049	0.0	-	-
0	2	7	205.43	3.96	6.655520	17.146742	24.424±0.032	2 5.028±0.025	24.597±0.027	0.0	-	-
0	2	8	1321.63	9.76	6.651950	17.131672	22.189±0.011	2 4.743±0.021	23.298±0.011	0.0	4	edge

Note. — Table **??** is published in its entirety in the electronic edition of the *Astrophysical Journal*. A portion is shown here for guidance regarding its form and content.

[a] Sample footnote for table **??** that was generated with the deluxetable environment
[b] Another sample footnote for table **??**