

## Homework[0]: LaTeX & GitHub Demonstration

SEAN P. MATT<sup>1</sup>

<sup>1</sup>*University of Oklahoma, Department of Astronomy*

### ABSTRACT

An abstract is not necessary for an ASTR 5900 report, but feel free to add one if you want.

#### 1. LINKS TO CODE

Here is a link to a file for this project:

[https://github.com/spmatt/ASTR5900\\_OU/blob/main/Seans\\_HW00\\_example.md](https://github.com/spmatt/ASTR5900_OU/blob/main/Seans_HW00_example.md)

It is not very interesting.

#### 2. MAIN TASK

This is a sentence.

In French: C'est une phrase.

In Python: `print("This is a sentence.")`

The LaTeX template I've used here is one provided by some astronomy journals (i.e., provided by the AAS for their journals). If you know of a journal that you have or are likely to write a paper for, why not use that journal's LaTeX template/format for your project reports in ASTR 5900? That way, you are practicing for paper-writing in your discipline.

##### 2.1. Reference to Figure

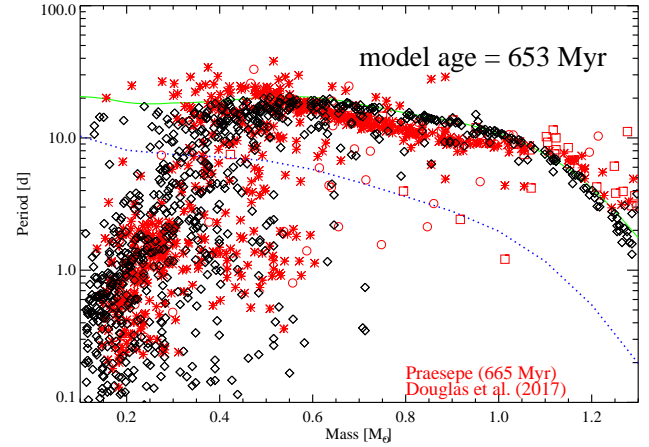
Figure 1 shows my sample figure. It is kinda nice, but I'm not going to describe it here. If this were a real report, I would be sure that every figure that is shown is also referenced and described in the text.

Don't worry about the placement of the location of your figure. Just let LaTeX put it where it wants. Do make sure they appear in the same order that you refer to them in the text. And normally, they should appear only at the top of a page (not in-line with text, and they should never have text above them; those rules are being violated in this docuemnt because the figure is on the first page, but no big deal).

##### 2.2. Equation Flex

A major strength of LaTeX is the ability to typeset beautiful equations. Normally, when giving an equation for something that looks like a torque on a star,

$$T = -T_0 \left( \frac{\tau_{cz}}{\tau_{cz\odot}} \right)^p \left( \frac{\Omega_*}{\Omega_\odot} \right)^{p+1}, \quad (1)$$



**Figure 1.** Here is an example figure, showing rotation periods of stars as a function of their mass. The red asterisk symbols are stars observed in the Praesepe open cluster, and the black diamond symbols are from a model evolving stars observed in the Upper Scorpius open cluster (age 8 Myr) to the age of Praesepe. If this were a real report, this caption would be much more descriptive than this.

I would follow it with a definition of all variables not already defined and possibly a description of why I'm showing this equation.

#### 3. QUESTION 2

This homework doesn't have question numbers.  
The end.