

## Independent Observing Project Description

ASTR:1070 (Stars, Galaxies, and the Universe) Lab

For your observing project, you will document your study of an astronomical object in greater detail than we've done in lab, taking on the role of an amateur astronomer. In science, we strive to explain how we collected our data and how we analyzed it as clearly as possible. This is so that other scientists can reperform our experiment and (hopefully!) confirm our results. We communicate how we collected the observations, analyzed the data, and arrived at a conclusion as part of a publication in scientific journals. Professional journals are "peer-reviewed", meaning they are vetted by other scientists for clarity and correctness. *A goal throughout your final project is to offer enough details that your work could be peer-reviewed – if a classmate looked at your paper or presentation, they should follow it closely enough to be able to reproduce your work.*

For your project, select an object as directed during Project Workday I. Every group must pick a different object. You will then collect observational data of that object with the Van Allen Observatory. You will then produce an astronomical data product, which will be a tri-color image. You'll lastly make a calculation based on that data, which will be a small angle formula physical size calculation, and report your results to the class and your instructor.