

## Astronomy 450: Astronomical Instrumentation Technology

Homework 1: Due date Sept. 8 at 2:00 pm. Please hand in this homework via email to [hodapp@ifa.hawaii.edu](mailto:hodapp@ifa.hawaii.edu) with the subject line “ASTR 450 homework 2”. Homework submissions time-stamped after 2:00 pm on the due date in the UH email system will be ignored. I will discuss the homework at the beginning of the class on Sept. 1, and submissions after that time would obviously have an unfair advantage.

This homework serves to familiarize you with the complex issue of radio frequency allocation and specifically with the frequency ranges allocated for radio astronomy research. Please google “frequency allocation” and find a graphical representation of the frequency allocations in the U.S. Study that chart and write up a list of the frequency ranges allocated and exclusively allocated to radio astronomy. Identify at least two specific emission lines of astronomical importance corresponding to allocated frequency ranges.