

Physics 343 Lecture # 4:
Lab # 2 + Temperatures + Statistics

Lab # 2: more observations of the Sun...

First part of lab: measure the aperture efficiency of the SRT.

Second part of lab: assess level of solar variability.

First part: use one of your section's Lab 1 datasets, unless you decide you need new data, which can be obtained in real time or later depending on the time of your section.

Second part: you will create script fragments that can be run Th/Fr/Sa/Su/Mo as part of a larger master script, and be sent “service mode” data.

Some details about the SRT

Digital receiver modes:

1 = 500 kHz bandwidth, 64 channels (default)

2 = 250 kHz bandwidth, 64 channels

3 = 125 kHz bandwidth, 64 channels

4 = 1218.75 kHz bandwidth, 156 channels

Current calibration scheme: raw data in instrument counts are automatically multiplied by “calcons” = 1.0 (vs. 0.12 from earlier) to obtain antenna temperatures in K. SRT software reports this antenna temperature on screen and in output files.