

Physics 343 Lecture # 4:
Lab # 2 + 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.

Most data will (again) be taken in service mode. For solar variability studies, you will create script fragments that will be merged to form a single master script. This will be run Friday, Saturday, Sunday, Monday, and Tuesday, and the data for your specific slot (see instructions) will be emailed to you.

19 emails + 1 office visit about Lab # 1. Don't be shy!

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.

Example: Bayesian redshift estimation

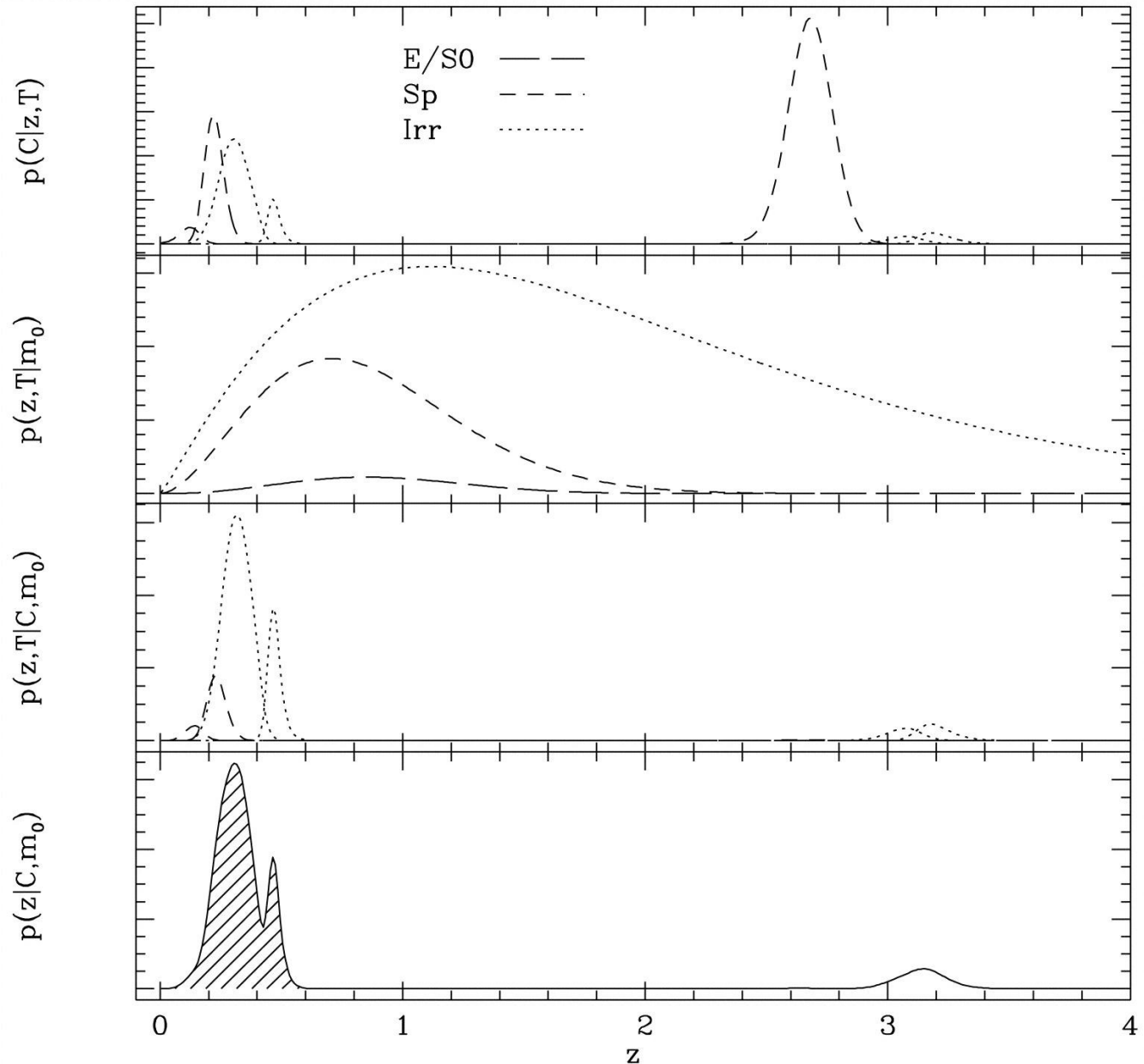
C = observed colors

z = redshift

T = type/template

m₀ = magnitude

Benitez (2000)



Quiz