

Topic 2: Stellar spectral classification

Questions for discussion:

- 1) Why might temperature affect the appearance of a stellar spectrum?
- 2) Why do stellar spectra usually show absorption lines?
- 3) If two stars have the same temperature, does that necessarily mean that the spectral lines will appear nearly identical?

Homework questions:

Q1) In the eclipse photos, we saw enhance areas of the chromosphere that appeared red. What does the appearance of the chromosphere indicate about its physical conditions; i.e., why does it appear red and why does it only appear against the dark background of space?

Q2) Using the "[Stellar parameters for various spectral types](#)" link. Compare the distances of G5 I, G5 III, and G5 V stars that are observed to have the same apparent magnitude of 11.5. (This illustrates the importance of determining the luminosity class of a star and not just the MK type.)