

## ISSIAAtomicData/phase2\_20161006/03\_MHD

- mhd2ints: Reads in a PLUTO snapshot, computes Fe XIII intensities for each slice in z, sums the results along z to create an integrated intensity. A small region is selected and the peak and mean intensities are determined. Some nuances
  - The emissivities computed 01\_chianti\_errors need some ‘extra’ factors (e.g., elemental abundance, ionization fraction) to be useful for comparison with observations in absolute units. They are added in here.

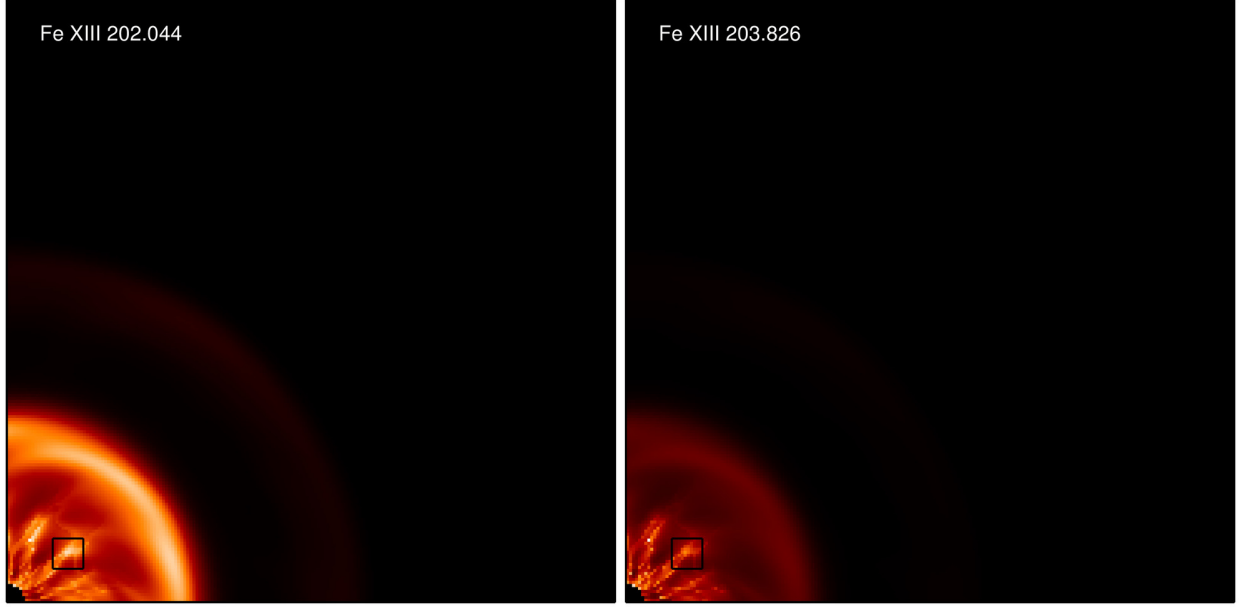


Figure 1: The integrated (in z) intensities in two Fe XIII lines of interest.

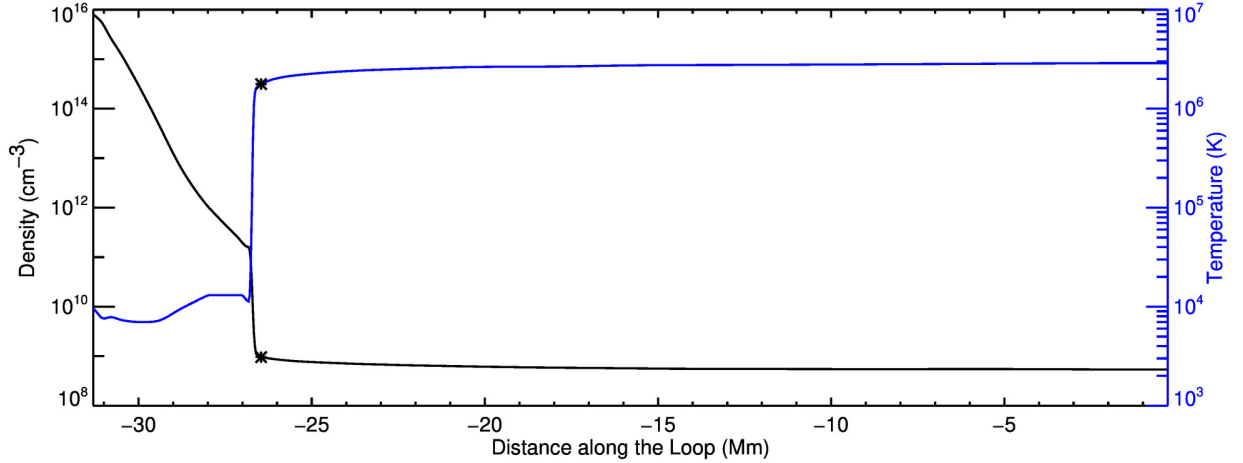


Figure 2: The temperature and density along z for the peak intensity in Fe XIII 203.826.

The peak and mean Fe XIII 203.826 intensities for the small field of view are

$$\begin{array}{rclcl}
 \text{peak} & = & 109.1 & / & 141.0 & = & 0.77 \\
 \text{mean} & = & 59.7 & / & 95.3 & = & 0.63
 \end{array}$$

- To do: Compute intensities for all of the Fe XIII emission lines of interest. Only the 202 and 204 lines have been calculated at present.