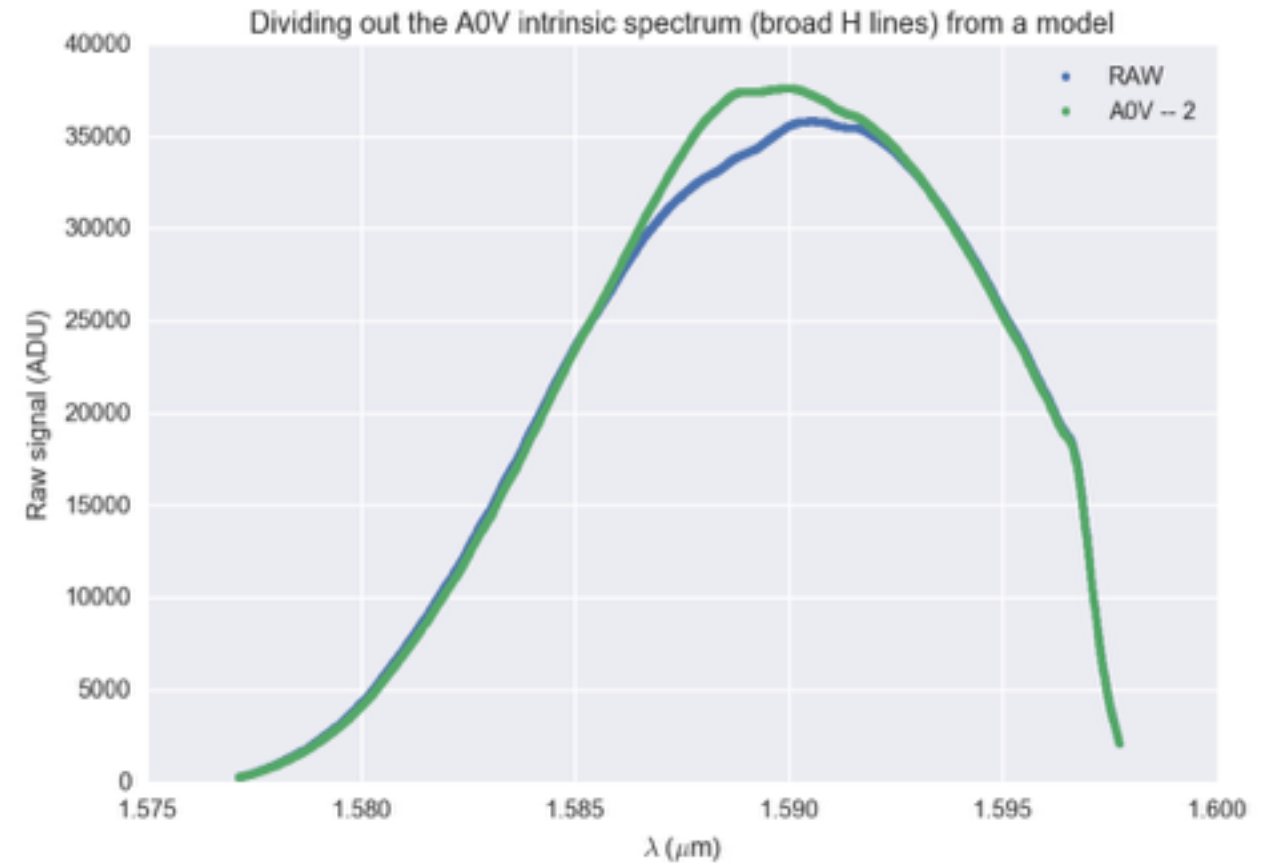
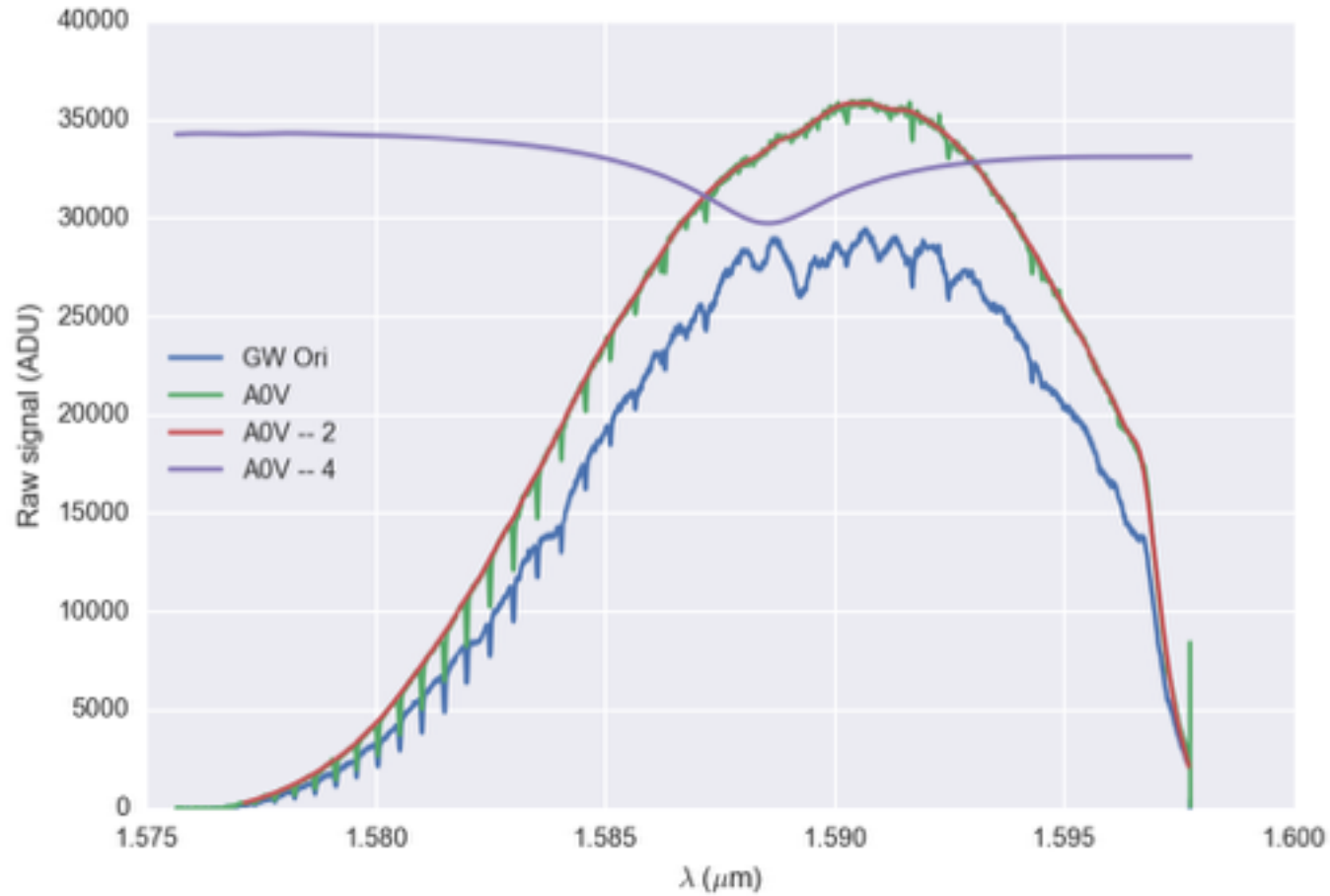
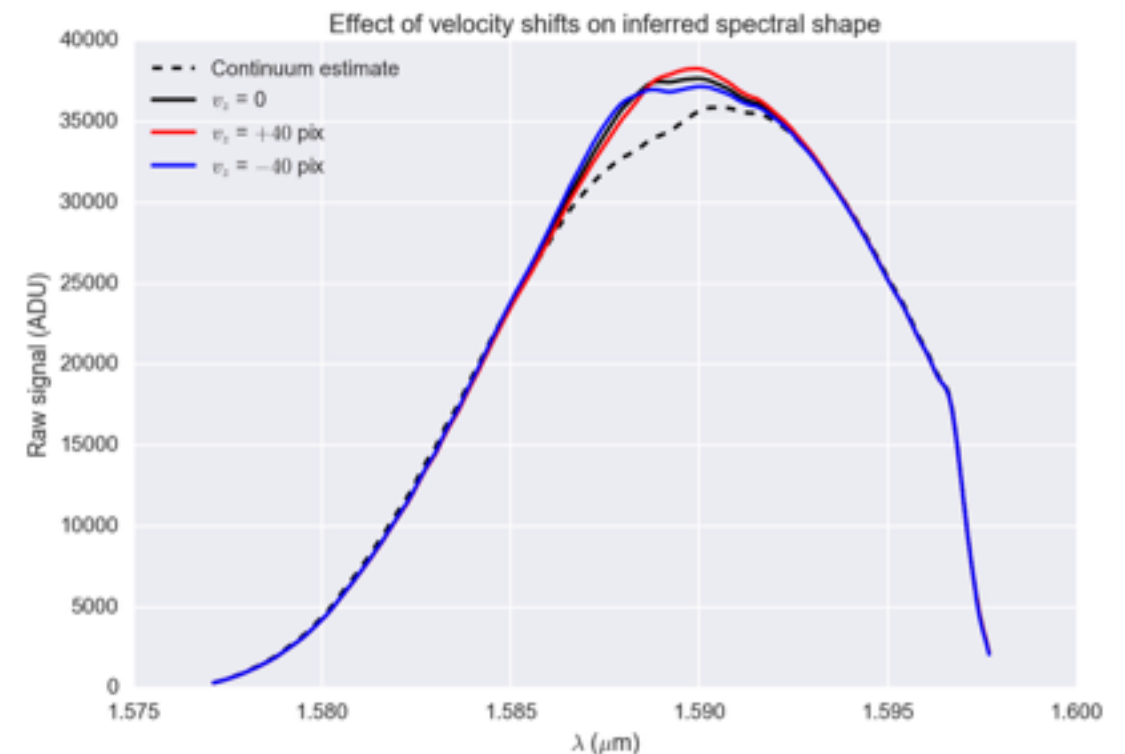


15840 - 15900Å -- There is a broad H line in the telluric spectrum (purple)

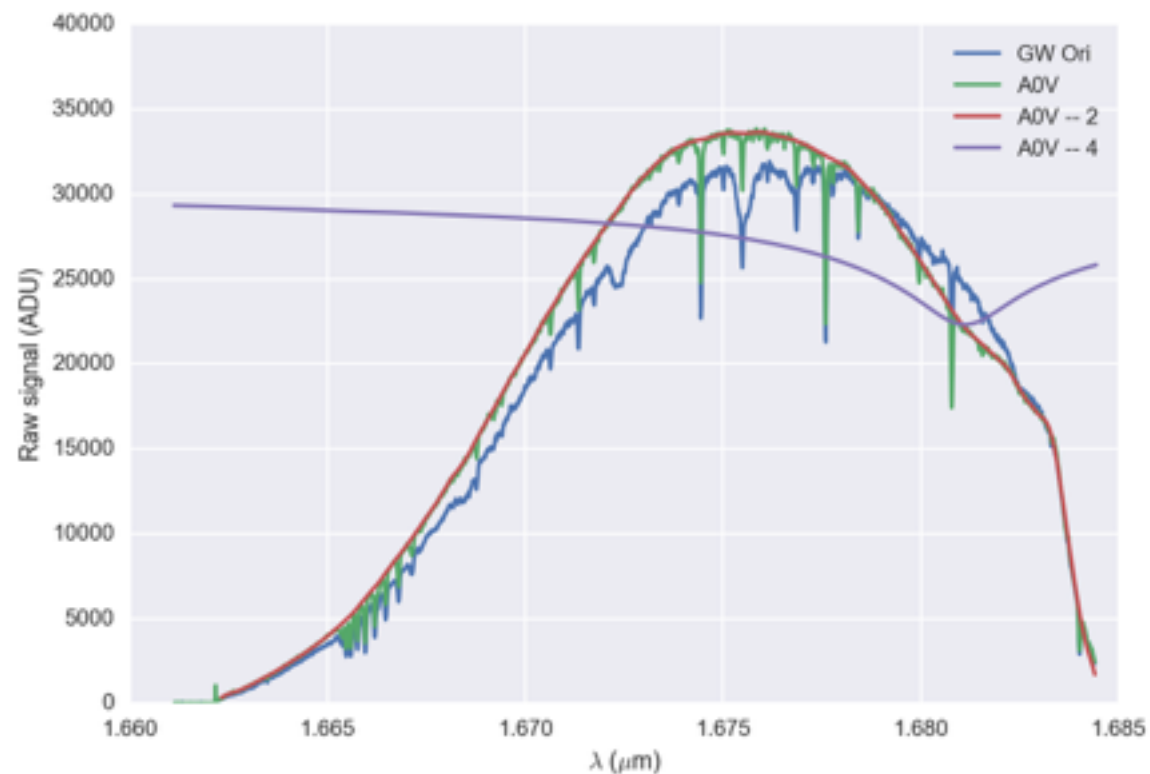


The Imperfect model (purple) leaves small spectral shape artifacts in the imperfectly corrected spectral shape

Velocity shifts, but also line depth differences in the A0V star leave broad spectral shape artifacts.

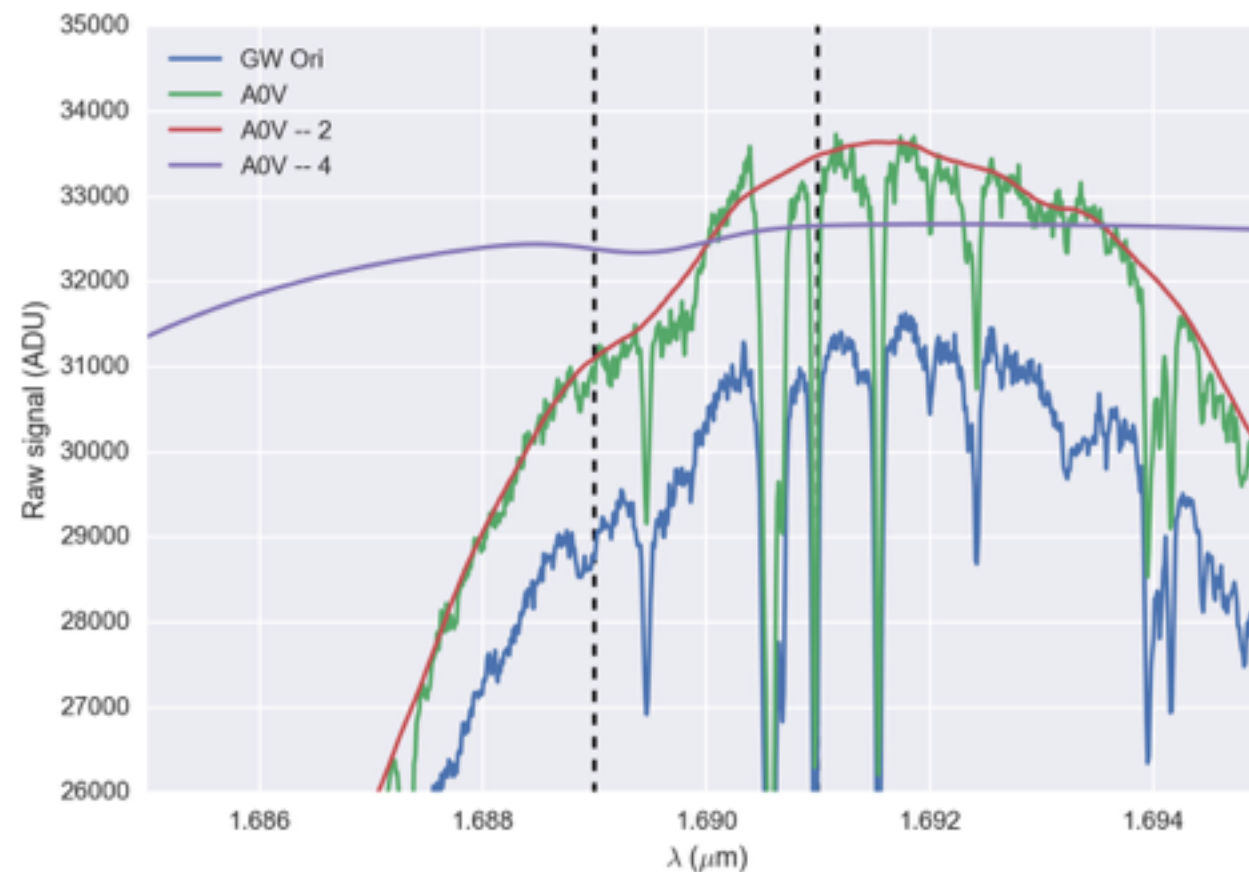


16760 - 16820Å -- Same effect



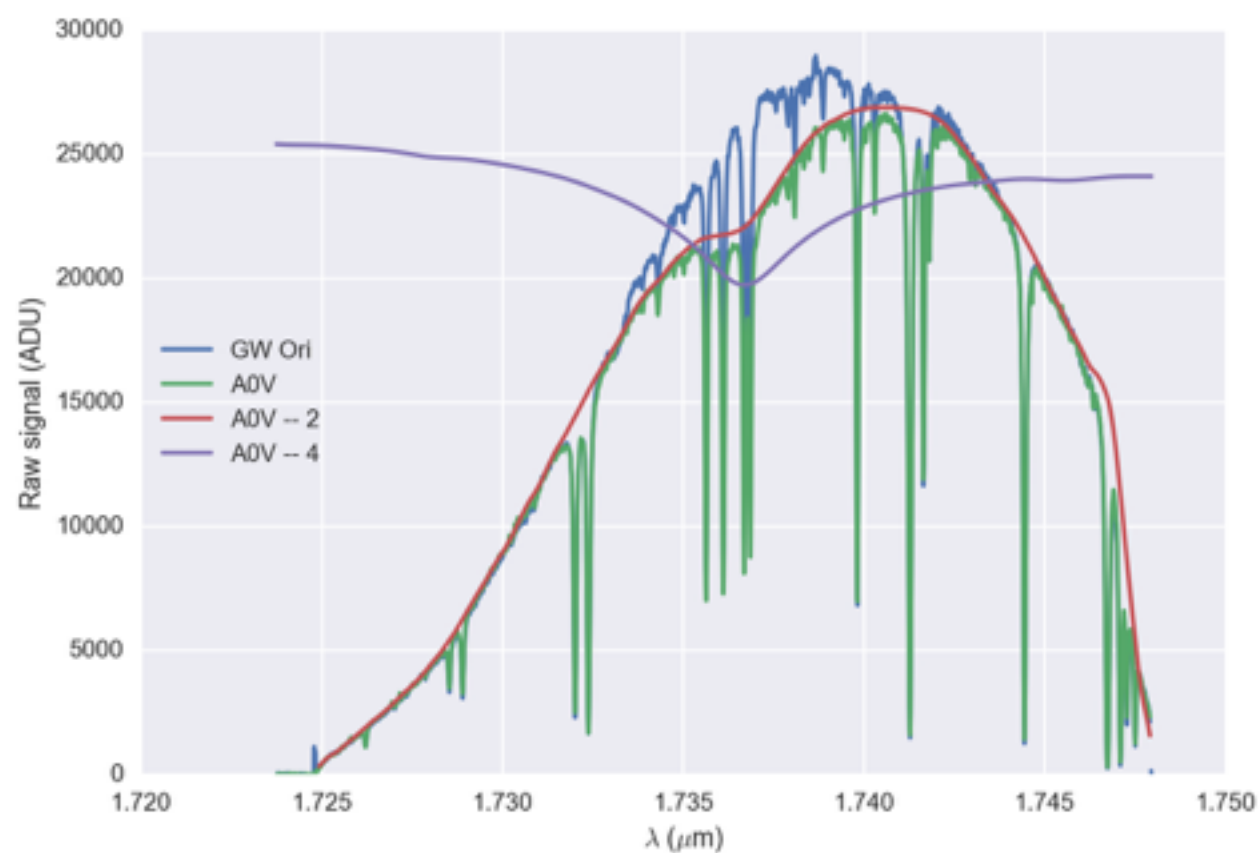
16890 - 16910Å

Likely an artifact



17320 - 17400Å

Same



21660 A



These could be artifacts too

What are folks doing for telluric correction on IGRINS? I've been watching the IGRINS plp updates, and it looks like the current supported mode for telluric correction is described here:

<https://github.com/igrins/plp/wiki/Plotting-spectra-&-divide-by-A0V>
(which was updated 7 days ago)

But the page acknowledges the shortcomings of such a procedure. Notably, "No correction in wavelength shift and airmass difference is corrected".

I quantified how much of an effect wavelength shift could have on the spectral shape here: <https://github.com/igrins/plp/issues/19>

I suspect folks in the IGRINS community have had to overcome some of these limitations. Are there any community resources available for telluric correction, beyond what the pipeline does? Are there any Jupyter notebooks someone is willing to share? I know telluric correction impacts some science cases more than others, so maybe the pipeline A0V division is good enough. Also, what ever happened to Kevin Gullikson's code-- is anyone using that? Anyways, any guidance here is appreciated! Thanks.

-gully to Greg Mace, Kim Sokal, and Kyle Kaplan on March 29

Kyle's summary is accurate. The pipeline does well enough for most people. The real problem is if you are trying to measure the hydrogen emission lines in a YSO, then a poor Vega correction will screw you. Nobody is doing that right now.

-Greg Mace to me in an Email on March 31