IGRINS-2 SV Observation Evaluation Form 1 form per science case

Title: Specphots with hot and cool stars

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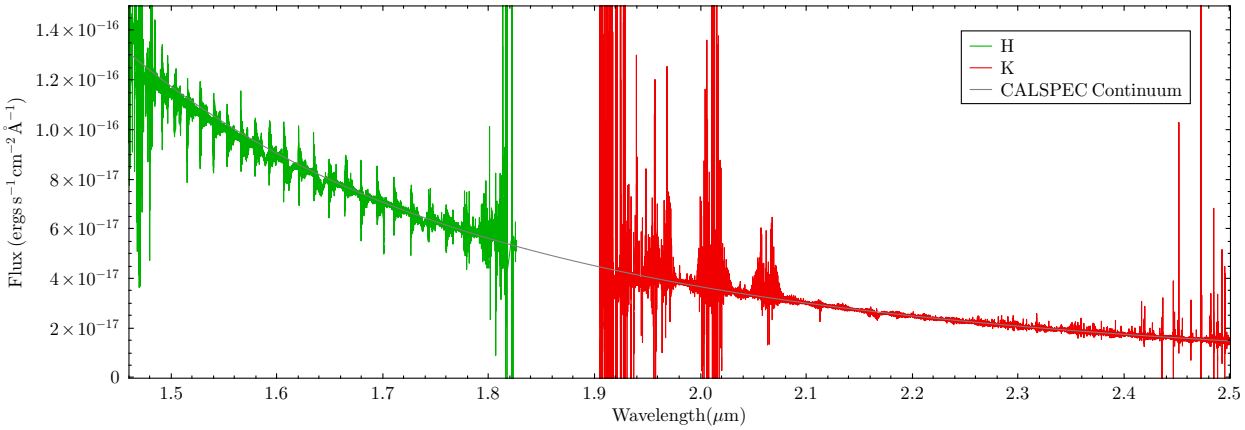
Description of the primary goals and the main findings

Spectrophotometric standards are a classic tool to measure spectral response, providing also cross-calibration between different instruments and allowing absolute comparison of object fluxes. While the near-infrared spectrophotometric flux standard is not as well established as the optical counterpart, vetting of near-infrared flux is essential for any new instrumentation, and multiple science cases (for e.g. emission line fluxes). Here we aimed to conduct high SNR observations of well characterized specphot standards of hot dwarfs (with broad absorption lines) and solar analog calibrators. The ultimate aim of this would be to examine the final absolute flux calibration of spectra achieved compared to the literature, in addition to crude slit throughput estimates, opening the door for future programs requiring absolute fluxing. From the targets proposed, only one target was fully observer (10 Lac), whose details are below.

Name	Object type	RA	Dec	K (mag)	Time (hr)
10 Lac	O9V	22:39:15	39:03:01	5.5	1 obs. of 0.5hr

The data were reduced using the latest version of the data reduction pipeline (igrins-dev-2). An extra reduction step provided by JJ Lee was followed to improve the order edges (removal of spikes, and improve order overlap). Below are the final 1D spectra in both H and K.



Currently, work is on-going to mainly improve the telluric correction, fluxing, and artefacts before moving ahead with a comparison to the model standard spectra.

Additional comments on IGRINS-2 performance:

Suggestions for improvements:

It would be useful if the data reduction pipeline produced an order merged product along with the current data products.

Any additional comments about IGRINS-2 SV