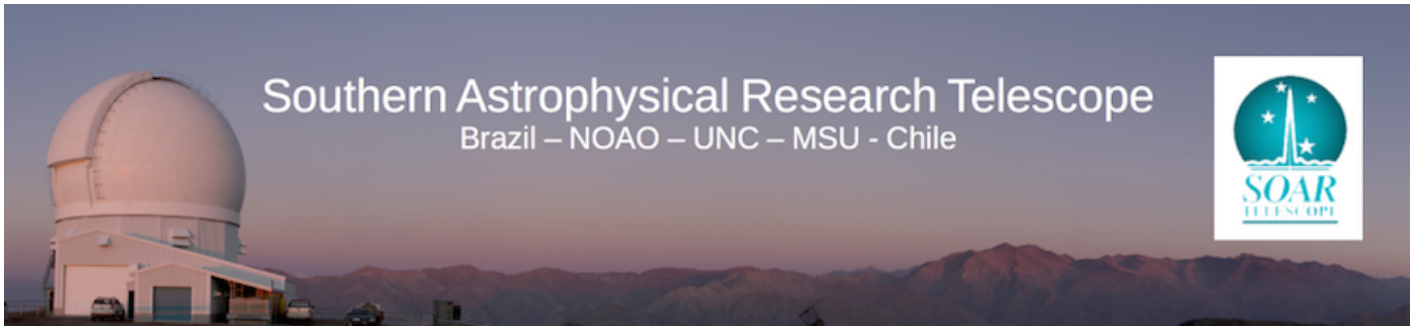

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Release of the Goodman Spectrograph Data Reduction Pipeline

Submitted by cbriceno on Mon, 2018-04-30 22:27

We announce the first release of the Goodman Data-Reduction Pipeline (DRP) [1], a Python-based package for producing science-ready, wavelength-calibrated, one-dimensional (1-D) spectra. The pipeline is an ongoing work aimed to provide SOAR users with an easy to use, documented software package for reducing images and spectra obtained with the Goodman High-Throughput Spectrograph.

The pipeline is primarily intended to be run on a dedicated data-reduction computer (see Running on SOAR Server [2]).
Initial processing is done by the `redccd` module, which trims the images, and carries out bias and flat corrections, and applies cosmic ray rejection. Spectroscopic processing is done by `redspec` and carries out the following steps:

- Identify multiple point-source targets (spectra of more than one object in the slit);
- Trace the spectra
- Extract the spectra
- Estimate and subtract background
- Find the wavelength solution
- Linearize data (resample)
- Write wavelength solution to FITS header
- Create a new file for the wavelength calibrated 1-D spectrum

Available Spectroscopic Modes in First Release

Grating	Mode	Filter	Comparison Lamps

400 l/mm	400 M1	--	HgAr, HgArNe
	400 M2	GG455	Ar, Ne, HgAr, HgArNe, CuHeAr, FeHeAr

Links
[1] http://www.ctio.noirlab.edu/soar/content/goodman-data-reduction-pipeline
[2] http://www.ctio.noirlab.edu/soar/content/running-soar-server