

Notes on existing grism packages

File Types

A list of the input/output files and their formats for the various grism packages.

PyLINEAR

Inputs

- obs.lst, sed.lst, individual SED files: all space-delimited tabular ascii files. Looks like there is also a WCS file in this format for the simulation module, and an flt.lst file listing the observation images for the cutout and/or extraction modules.
- A config file, in YAML format, specifying the parameters of the run, locations of input files and other metadata. See defaults.yml at <https://github.com/Russell-Ryan/pyLINEAR/blob/master/pylinear/config/defaults.yml>.
- A segmentation map in FITS format.
- Beam info, flat field, and detector files in HDF5 format.

Outputs

- HDF5 file containing grouped spectra (Russell notes in the docs that this could move to ASDF)

Grizli

NIRCAM_Gsim

aXe/aXeSim

Performance

Notes on if/how each existing package parallelizes their processing, as well as general notes on speed/performance.

Simulation

For now, see https://github.com/spacetelescope/astrogrism_sandbox/blob/forward_modeling/ForwardModeling.ipynb