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SPECFOCUS: An IRAF Task for Focusing Spectrographs

F. Valdes (NOAO/IRAF)

An IRAF task for measuring the point-spread function (PSF) along the dispersion and wavelength shifts across the dispersion in two dimensional arc spectra is described. In typical use a set of spectra are obtain with various spectrograph focusing and alignment adjustments and the PSF information and shift information is derived and presented in tabular and graphical forms. Within each image the spectra may be divided into a number of samples along the dispersion and across the dispersion to investigate variations at different points in the detector at fixed focus settings. With many spectra and many samples interpreting the measurements is challenging. The task provides an interactive graphical interface to display the measurements in a number of interesting ways. The underlying algorithm for measuring the PSF and shifts is the auto/cross-correlation of spectral arc samples.