

NIRIS - Near InfraRed Imaging Spectropolarimeter

The Near InfraRed Imaging Spectropolarimeter (NIRIS) is the direct successor to IRIM. NIRIS will utilize dual Fabry-Pérot etalons that provide a larger, 85 arcsec, field of view and ~6 times greater throughput resulting in a faster scan cadence of 1 sec for spectroscopic and 10 sec for full Stokes polarimetric measurements. The dual-beam optical design will image two simultaneous polarization states onto a 2024x2048 HgCdTe closed-cycle He cooled IR array. The primary lines of interests for NIRIS are the Fe I 1565 nm doublet which is the most Zeeman sensitive probe of the magnetic field in the deepest photosphere and the He I 1083 nm multiplet that is the best currently available diagnostics of upper chromospheric magnetic fields.

Species	Wavelength	Bandpass	Field of view	Image scale	Vector spectro-polarimetry
Fe I	1564.85 nm	0.1 Å	85" round	0.083"/pix	10 sec
Fe I	1565.29 nm	0.1 Å	85" round	0.083"/pix	10 sec
He I	1083.25 nm	0.05 Å	85" round	0.083"/pix	10 sec
Si I	1082.70 nm	0.05 Å	85" round	0.083"/pix	10 sec