Infrared Stokes Polarimeter
on the Solar Flare Telescope
NAOJ, Mitaka Campus

T. Sakurai
you are here

Solar Flare Telescope
original configuration (1991)

Hα

V//, B∥
Fe 6337Å

white light

vector B
Fe 6303Å

four PhD theses so far
two more coming soon
current and planned configuration

Stokes Polarimeter 1.56\(\mu\)m, 1.083\(\mu\)m

vector B

Fe 6303Å

vector B

H\(\alpha\)

ferroelectric liquid crystal modulators
Hα Full Stokes Polarimetry
• 15cm aperture
• full disk scan (two swaths), 1.75”/pixel
• 6.3pm/pixel @1.56 μm, 4.1pm/pixel @1.083 μm
• InGaAs camera, 512X640 pixels, 60fps
IR camera

15cm objective lens

off-axis paraboloid mirror

grating

scan mechanism

liquid crystal polarimeter

spectrograph slit
Fe I 1.56μm
to be operational in 2006 winter
Norikura Solar Observatory, NAOJ
Green-Line (Fe $\text{xiv}$, 2MK) Doppler Movie
(Norikura Solar Observatory, NAOJ)
Coronal Loop Oscillation Excited by a Flare
period ~ 10-15 min, amplitude ~ 5km/s

K.Hori et al., in preparation