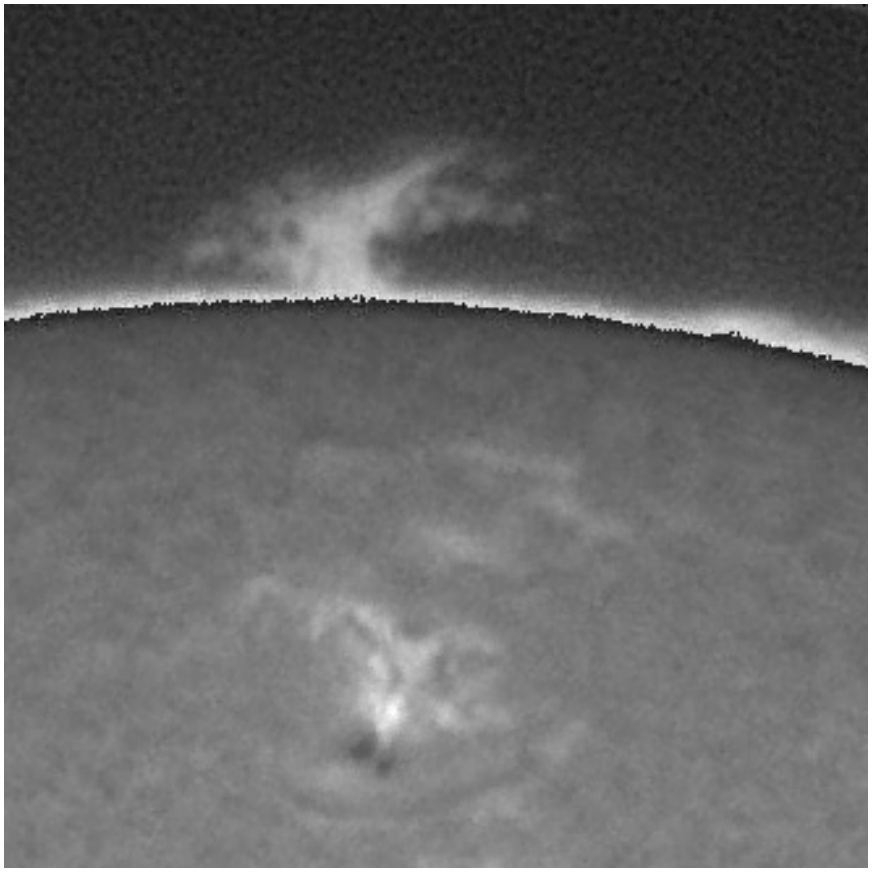
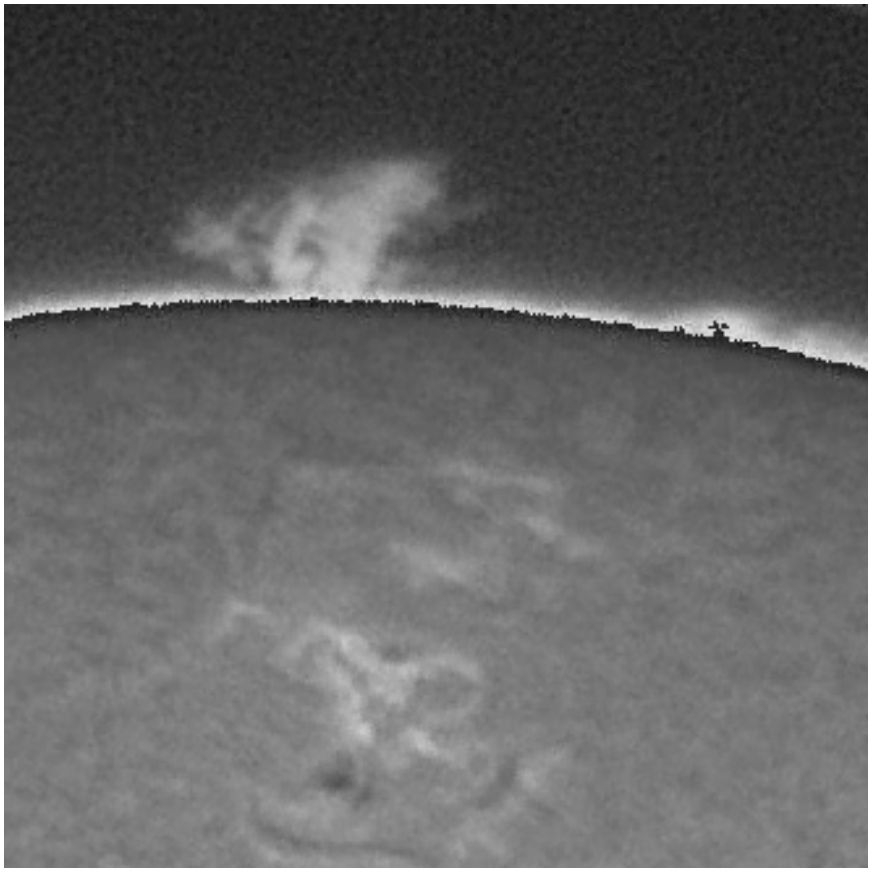
1 Aug 2014

THEMIS target: bright prominence at the East limb
THEMIS scan duration: 2 hod 24 min
Context Hα images from GONG

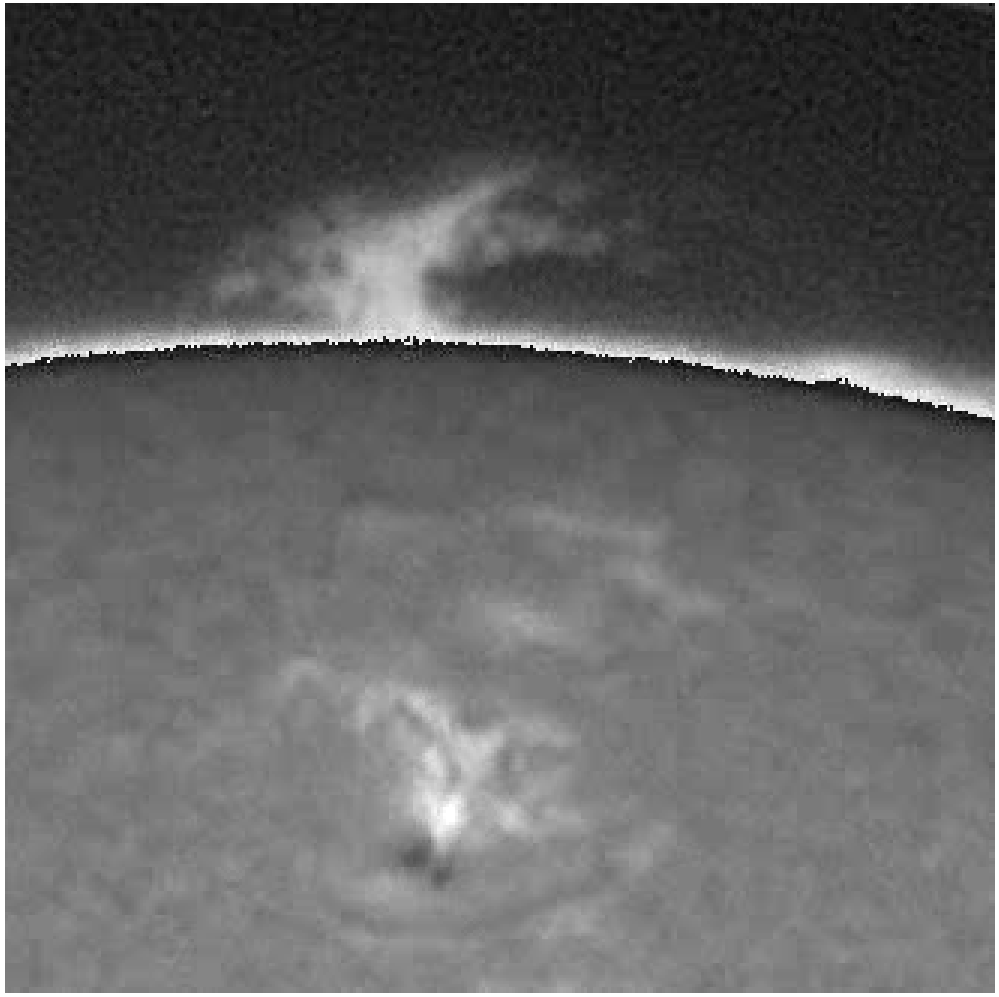
Target prominence at scan start 15:09



and at scan end 17:33

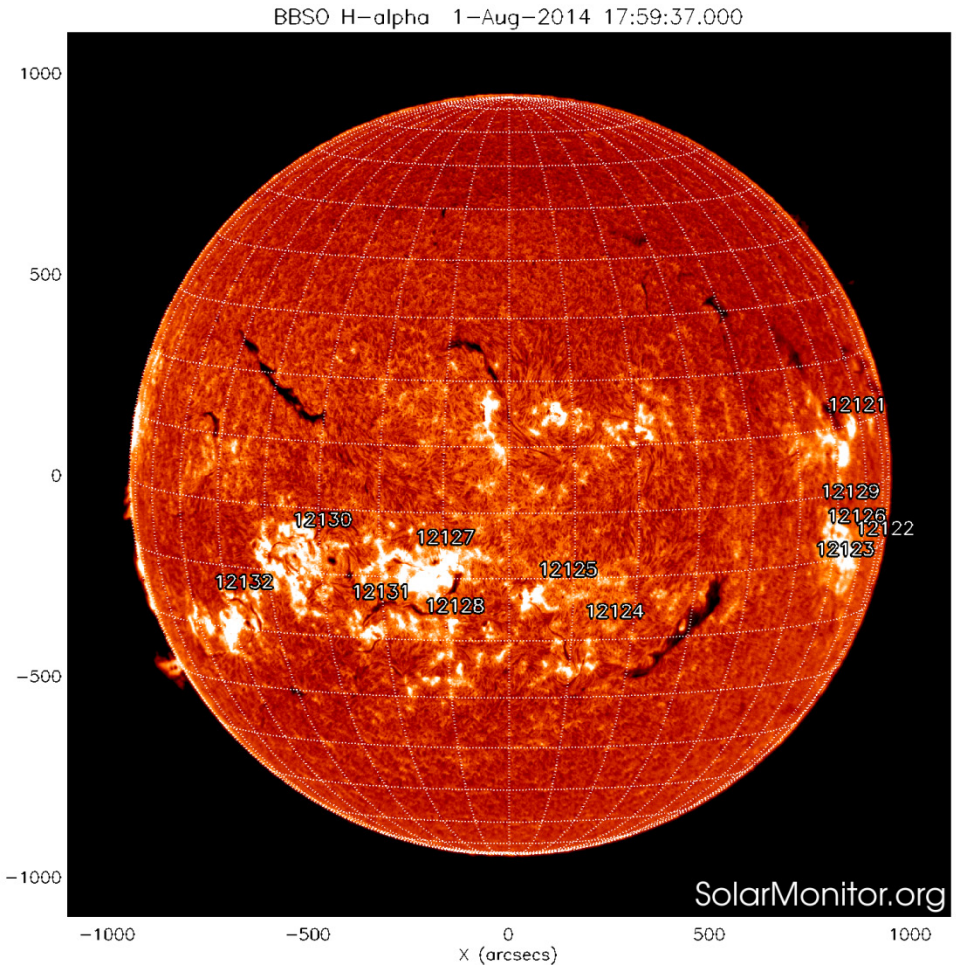


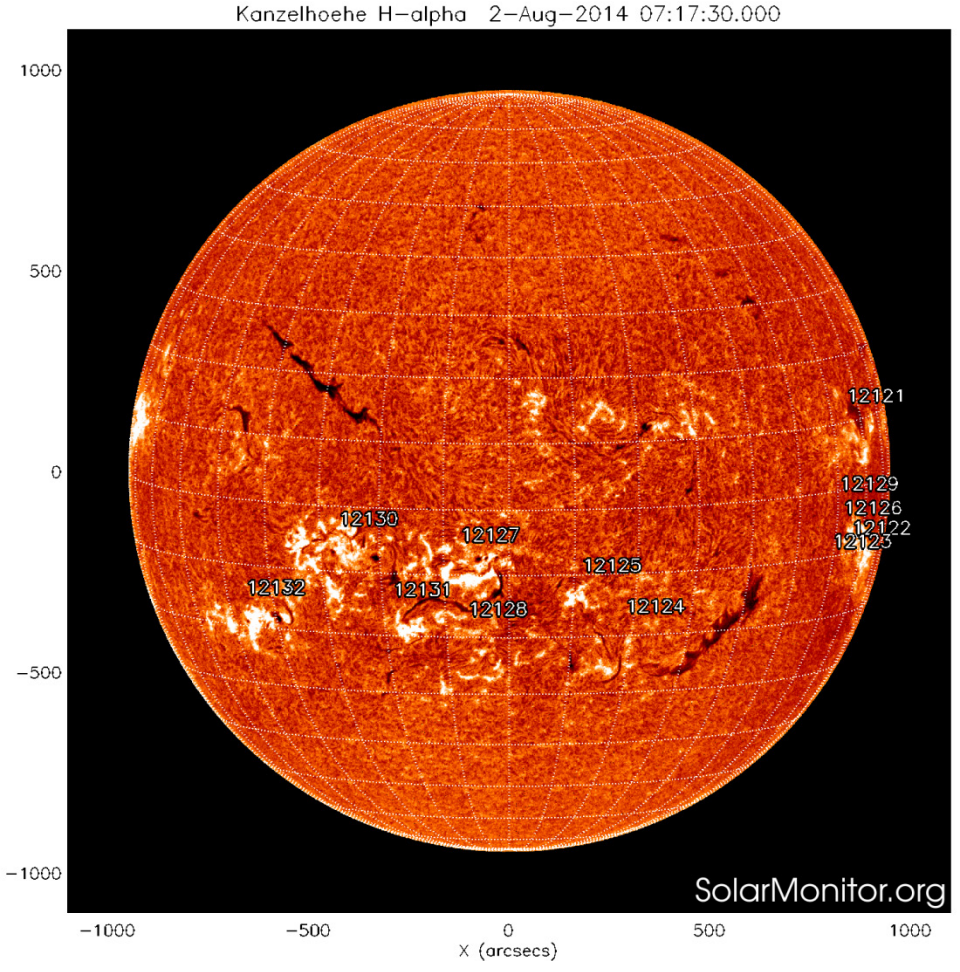
Evolution of target prominence during THEMIS scan



GONG Hα

Disappearance of target prominence (no follow-up filament)

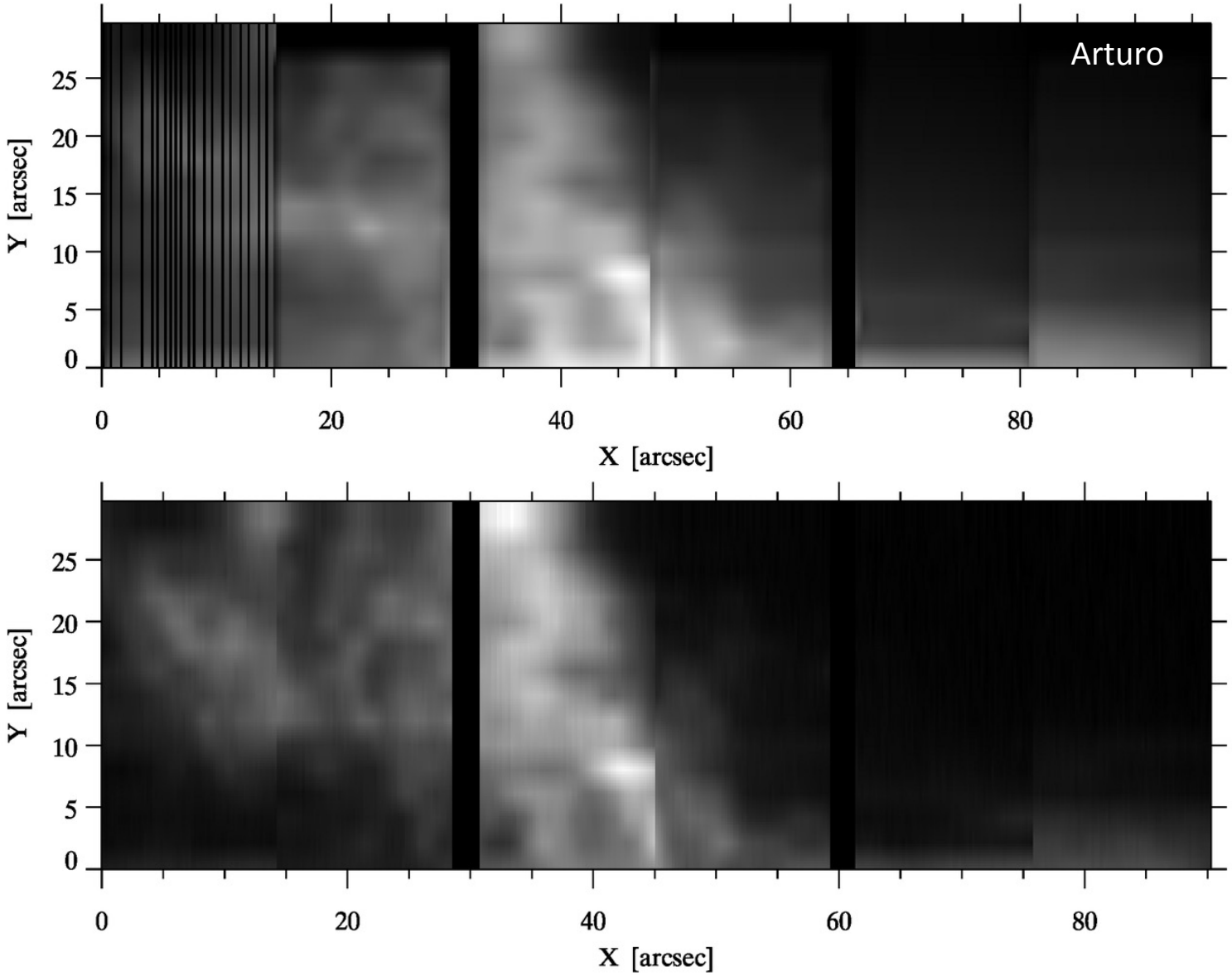


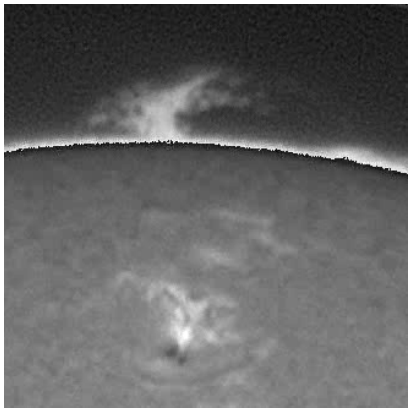


THEMIS 1 Aug 2014

Reconstructed image of prominence at line center of He I D3 at 5875,66 Å

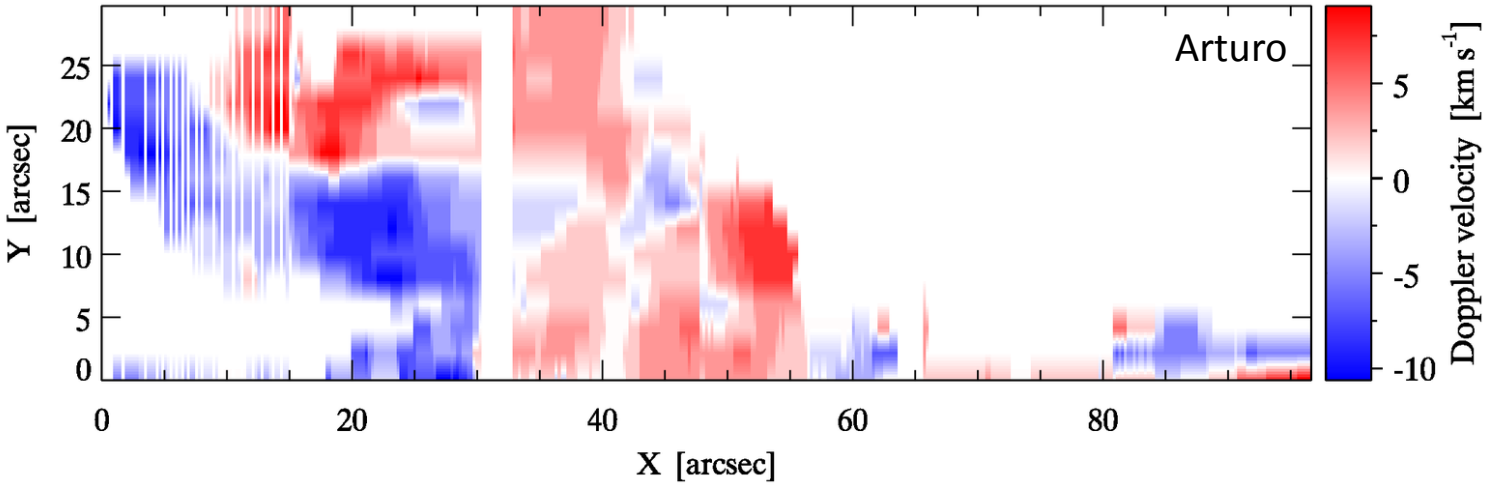
scan time: 2 hod 24 min

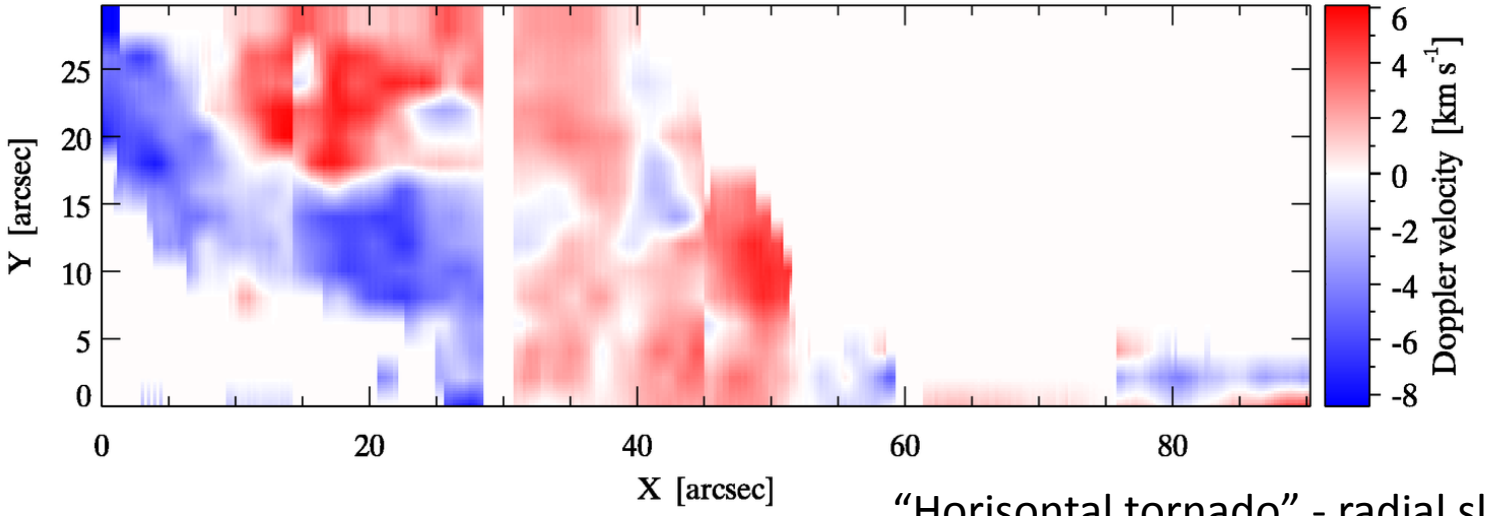




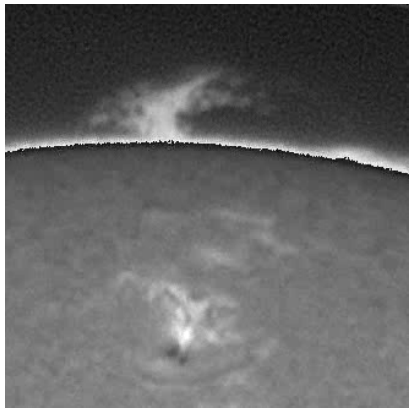
THEMIS 1 Aug 2014

Doppler velocity, scan time: 2 hod 24 min





PCA inversion

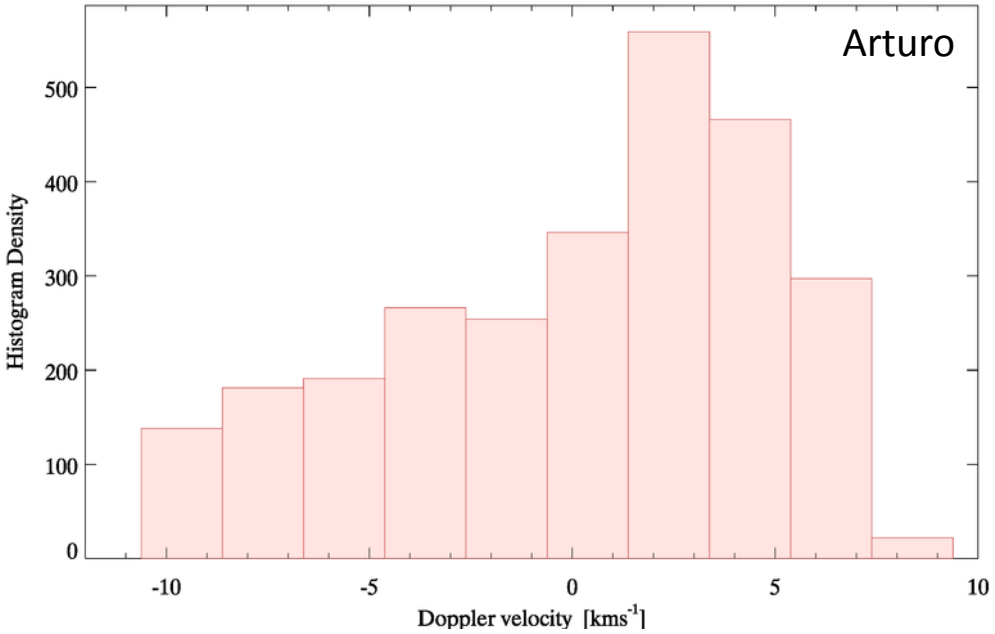


KIS_LIB

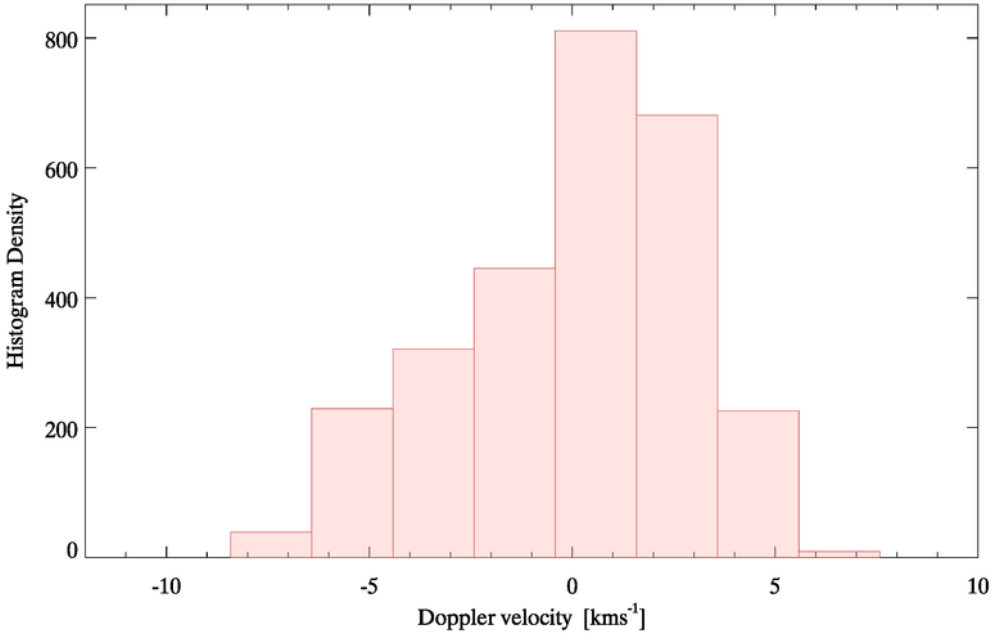
cent_line.pro

"Horisontal tornado" - radial slit instead tangential

THEMIS 1 Aug 2014

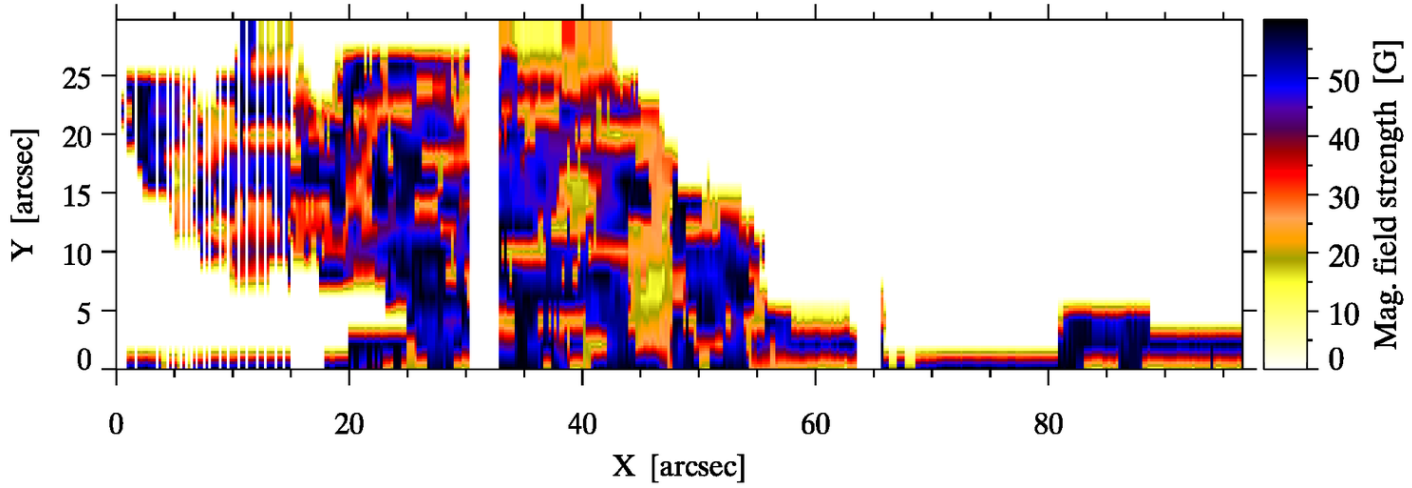


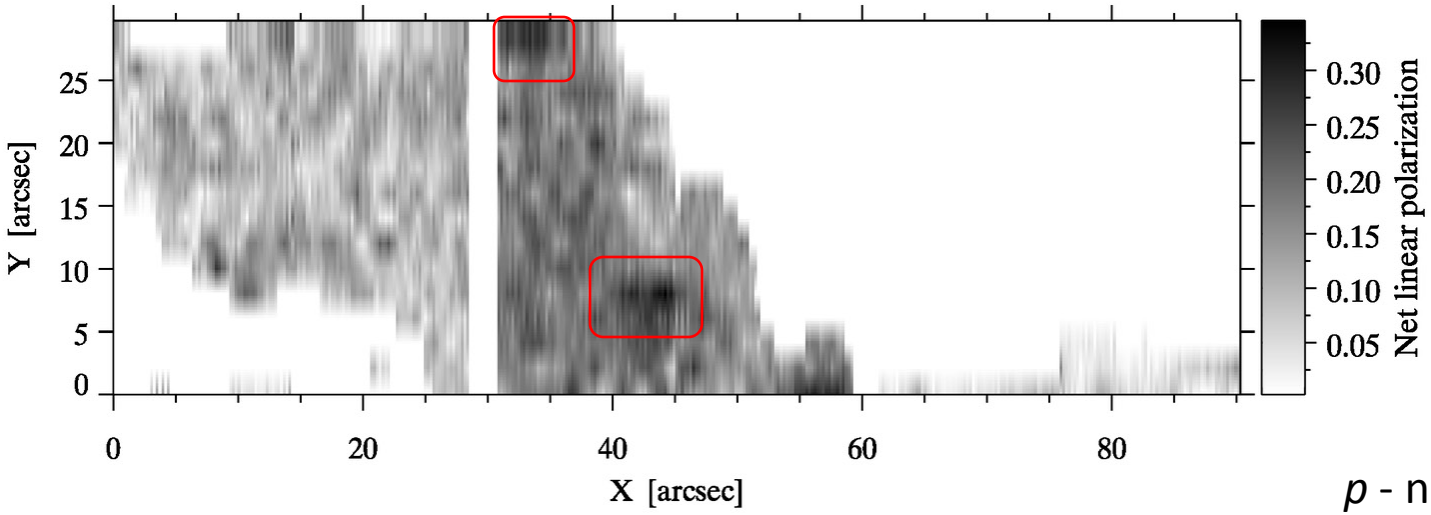
PCA inversion



KIS_LIB
cent_line.pro

Upshot
similar shapes
but
different ranges





$$q = \int_{line} Q(\lambda)d\lambda$$

$$u = \int_{line} U(\lambda)d\lambda$$

$$p = \sqrt{q^2 + u^2}$$

p - net linear polarization

Upshot We consider mag. field strength reliable in the regions showing

very high peak intensity of Stokes I (see reconstructed image)

and

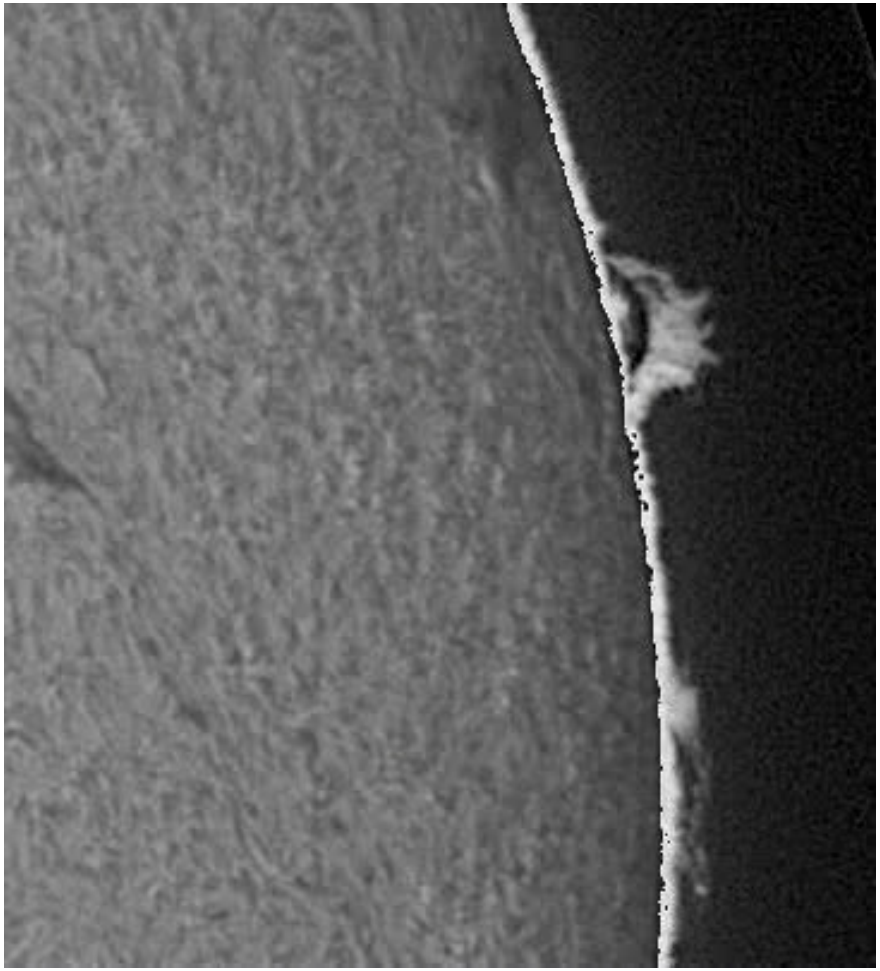
very high net linear polarization ($p > 0.3$)

7 Aug 2014

THEMIS target: loop-like prominence at the West limb

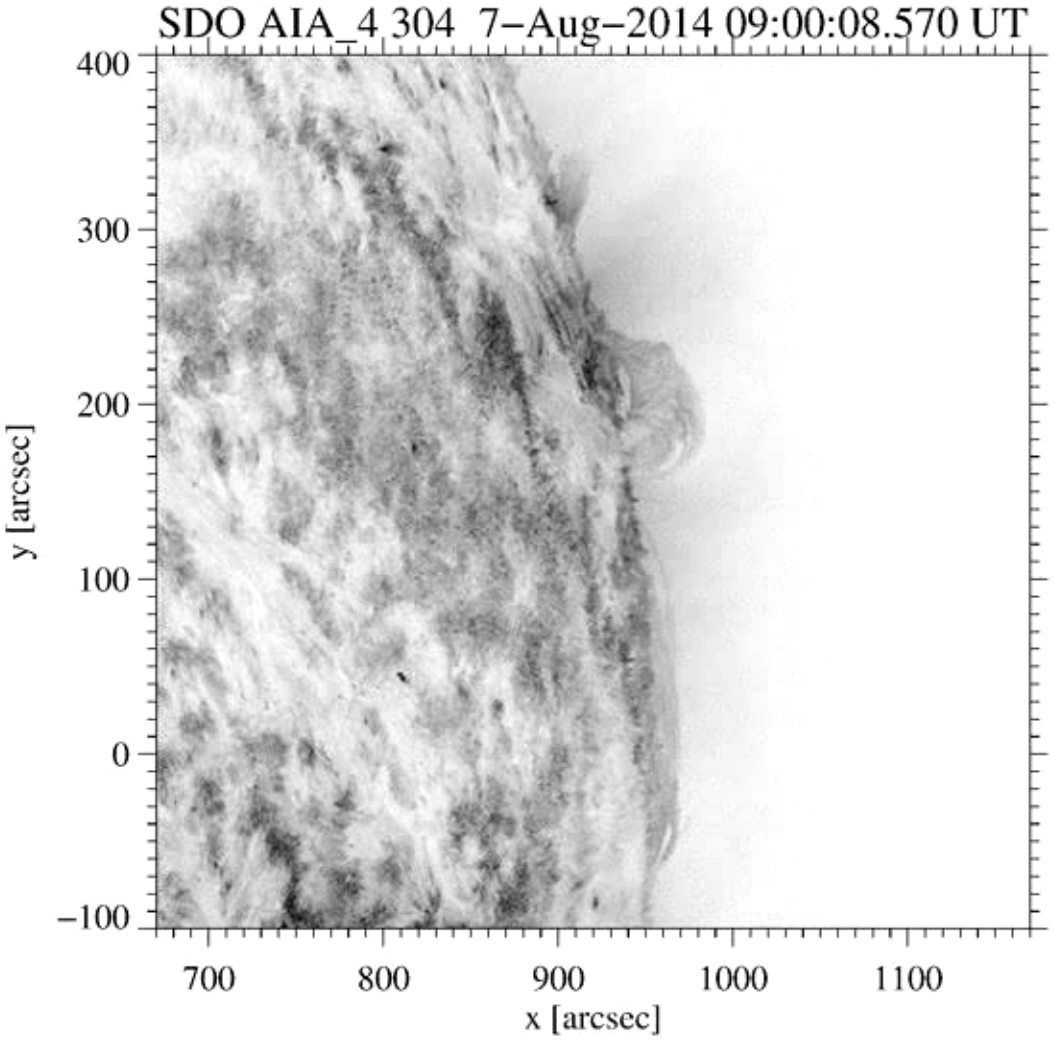
THEMIS scan duration: 2 hod 3 min

Movie: evolution of target prominence during THEMIS scan

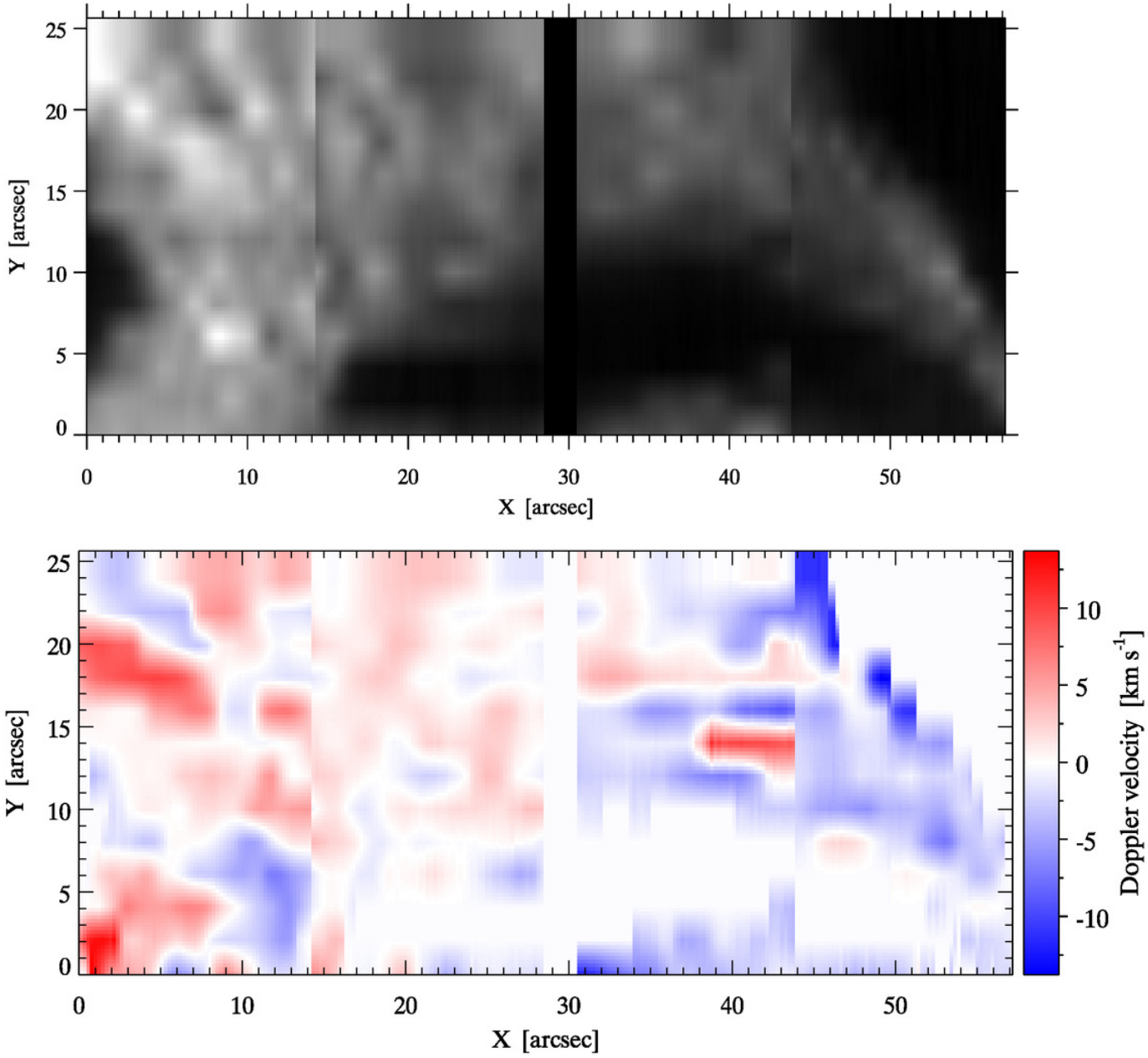


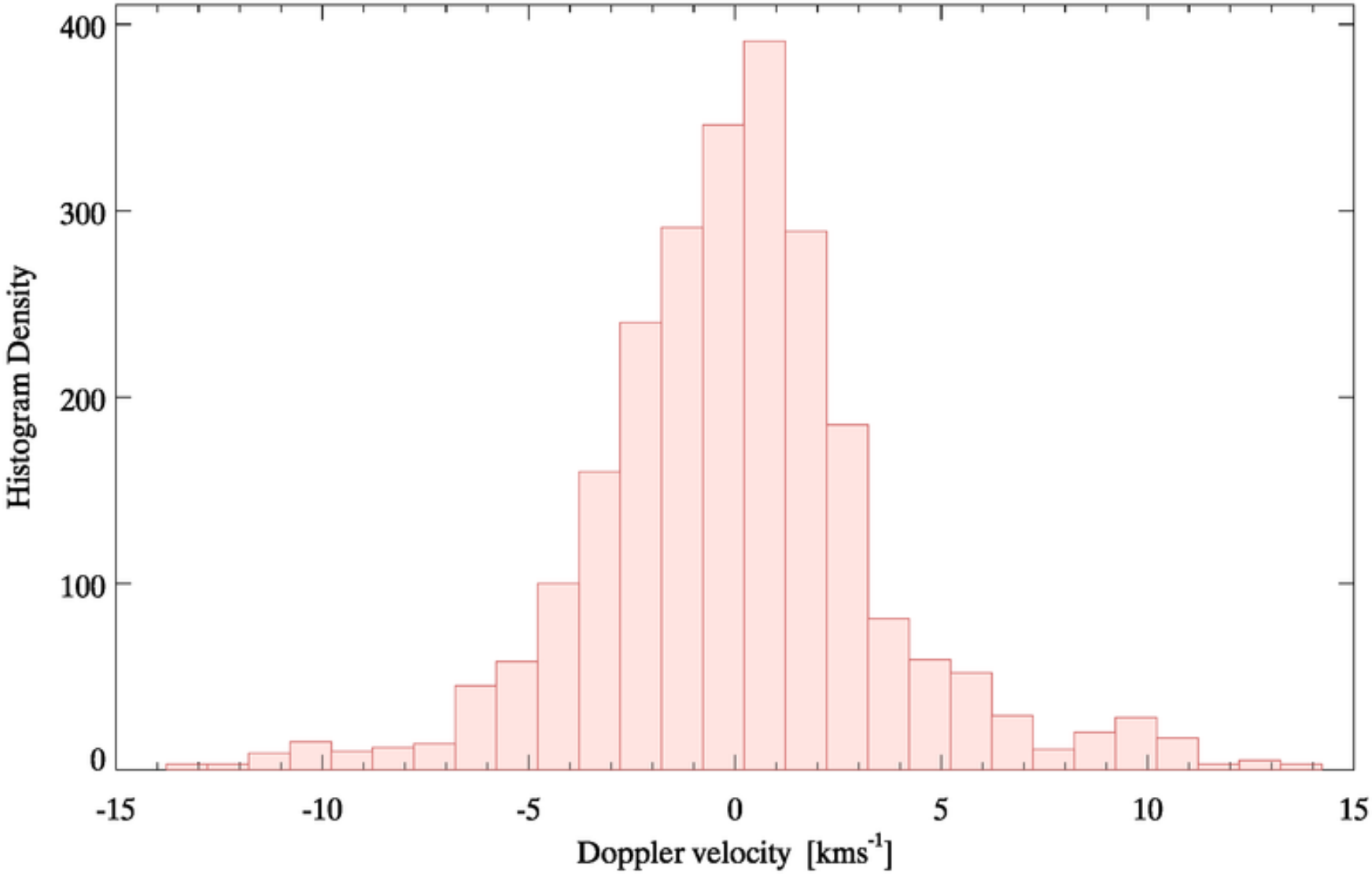
GONG Hα

Evolution of target from SDO (author: Peter)



THEMIS (scan time: 2 hod 3 min)





Upshot

standard prominence velocities in the range ±10 kms^{-1} mentioned in the literature