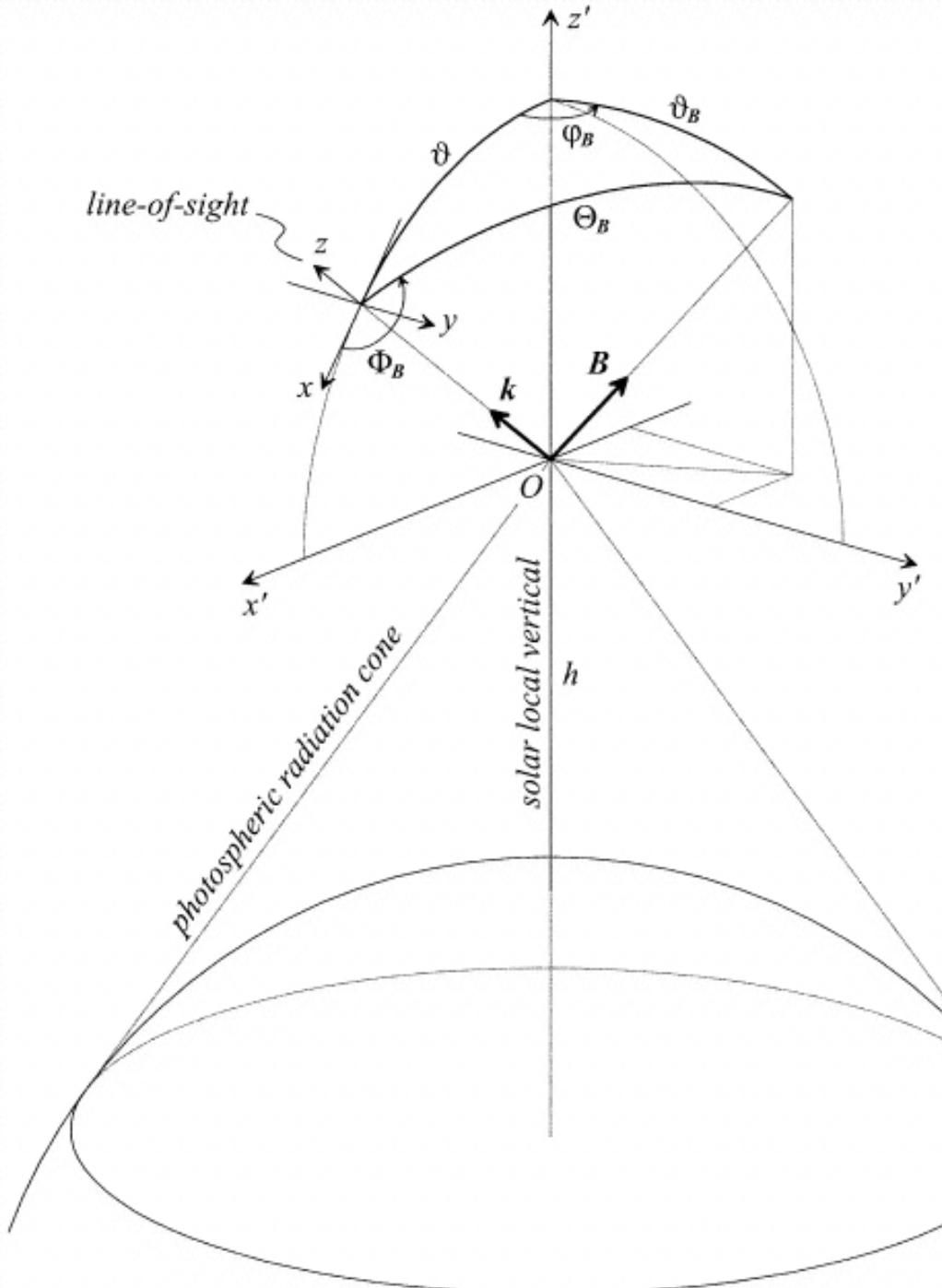


# Case study of magnetic field and dynamics in a prominence

# Geometry



**Local reference system  
(with respect to the local vertical)**

**LOC RS**

$\vartheta_B$  inclination

$\varphi_B$  azimuth

**Line-of-sight reference system  
(with respect to the line of sight)**

**LOS RS**

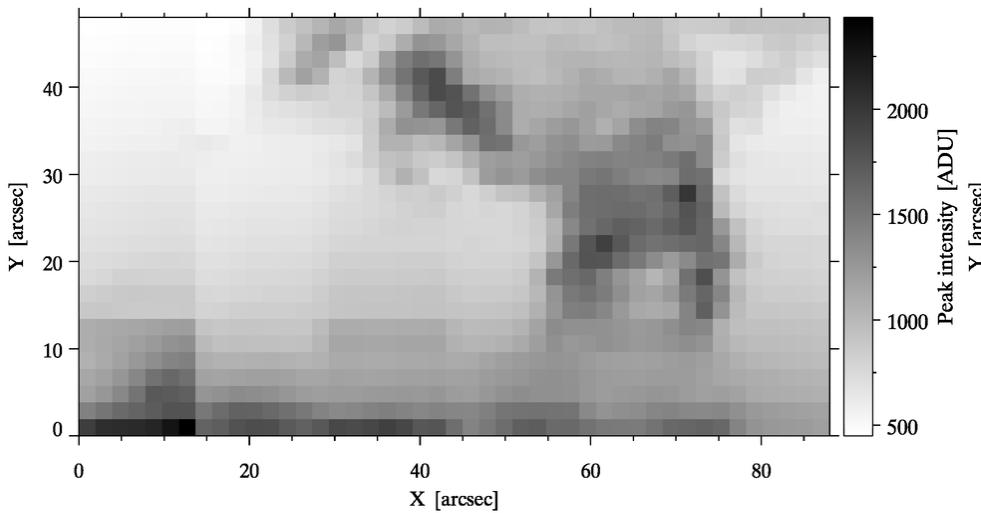
$\vartheta$  inclination

$\varphi$  azimuth

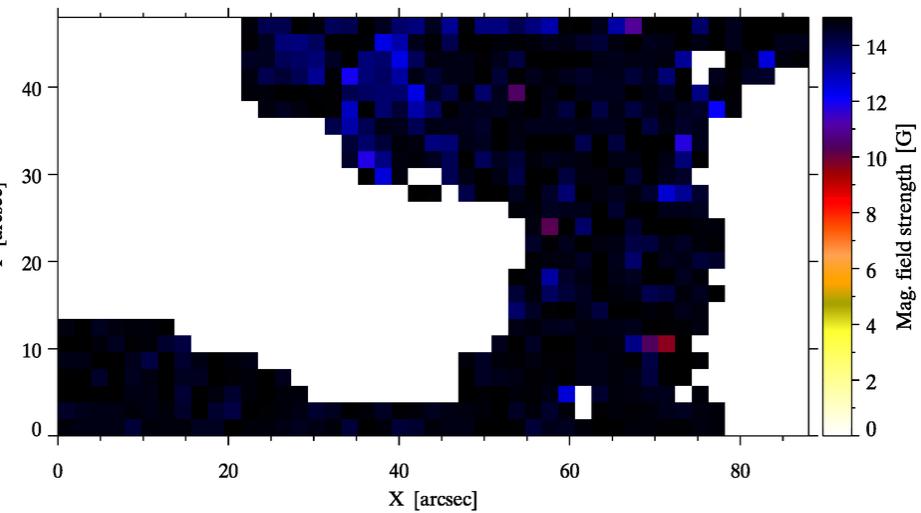
2 August 2014

2014-08-02 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

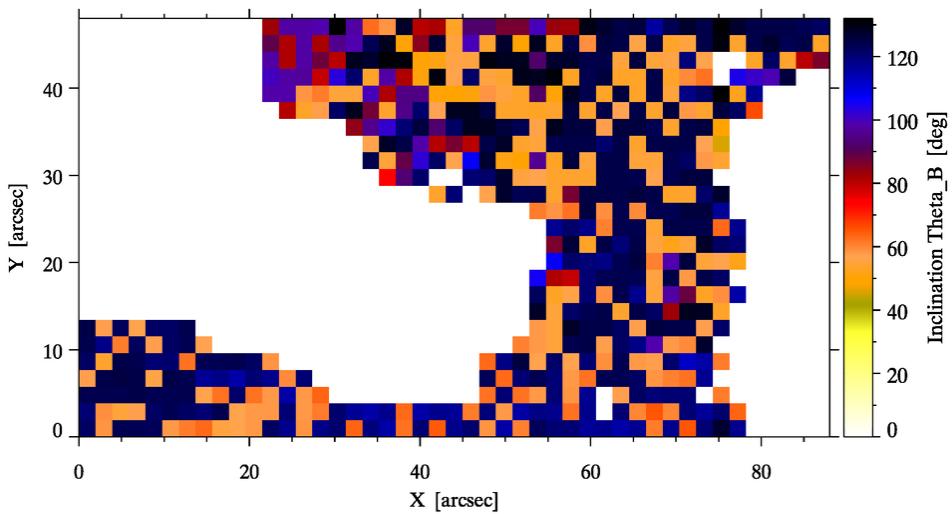
Peak intensity



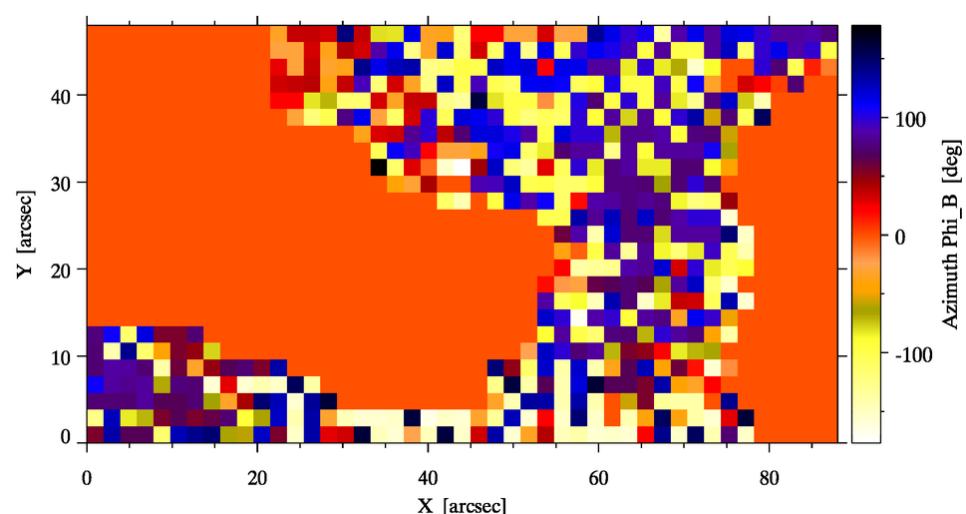
Mag. field strength



Inclination LOC RS

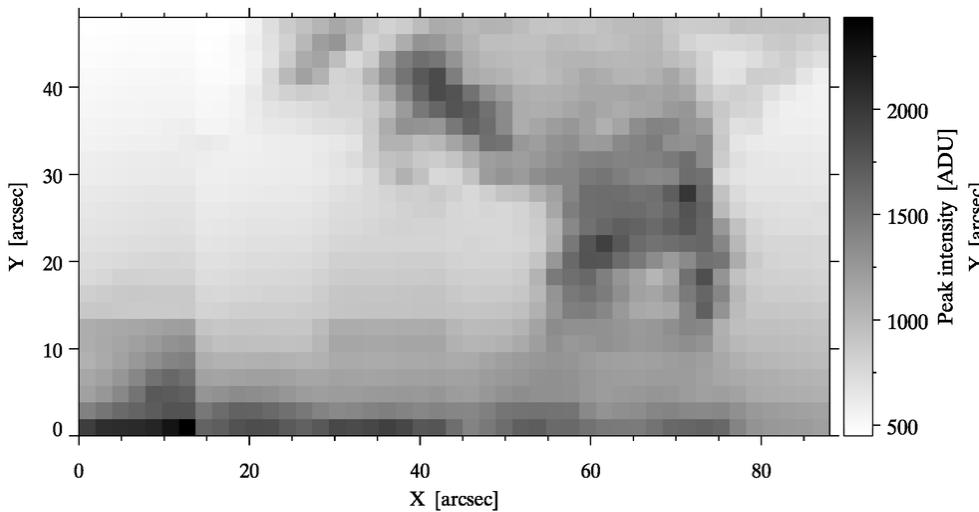


Azimuth LOC RS

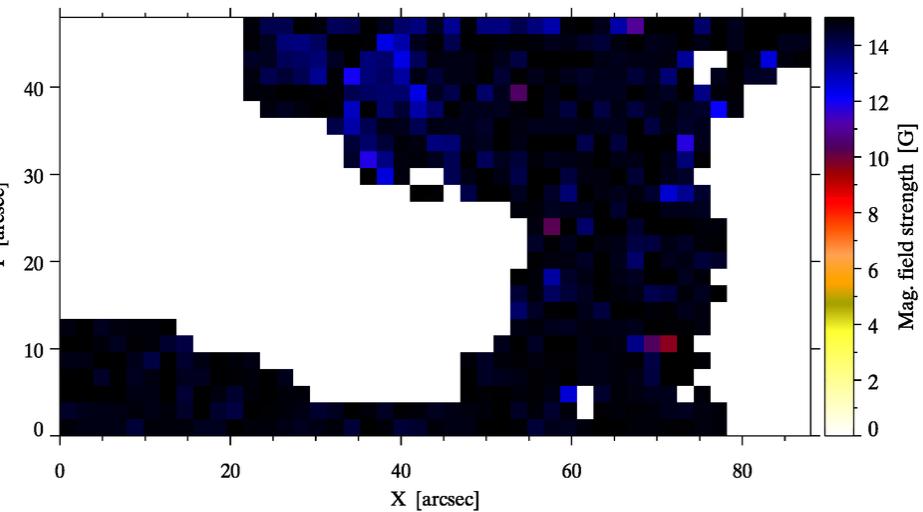


2014-08-02 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

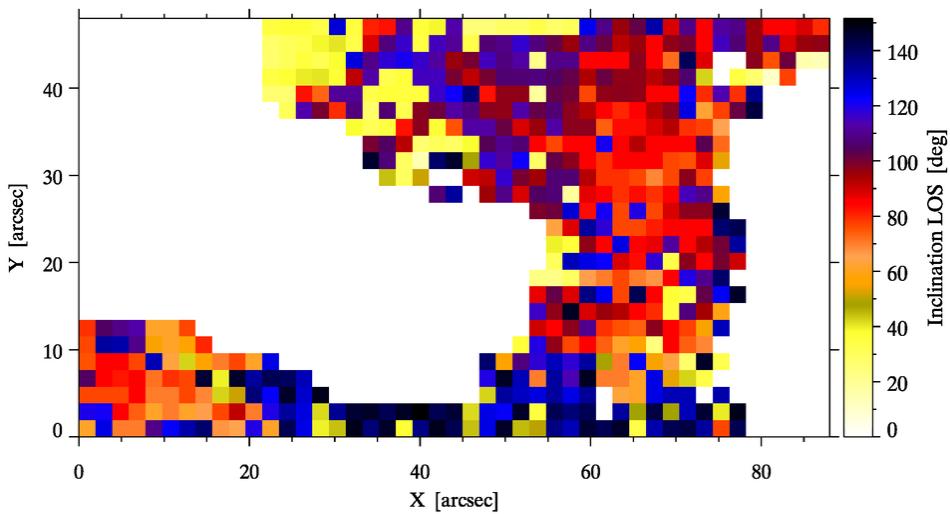
Peak intensity



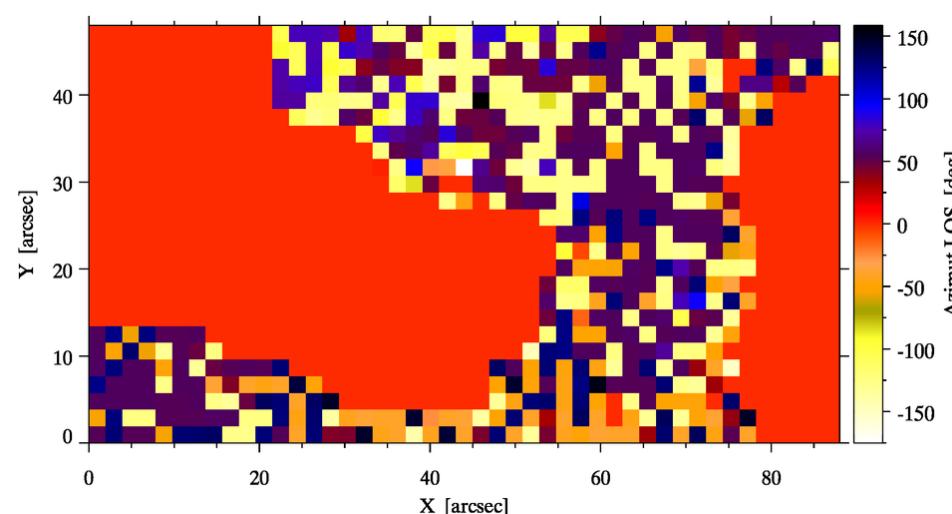
Mag. field strength



Inclination LOS RS

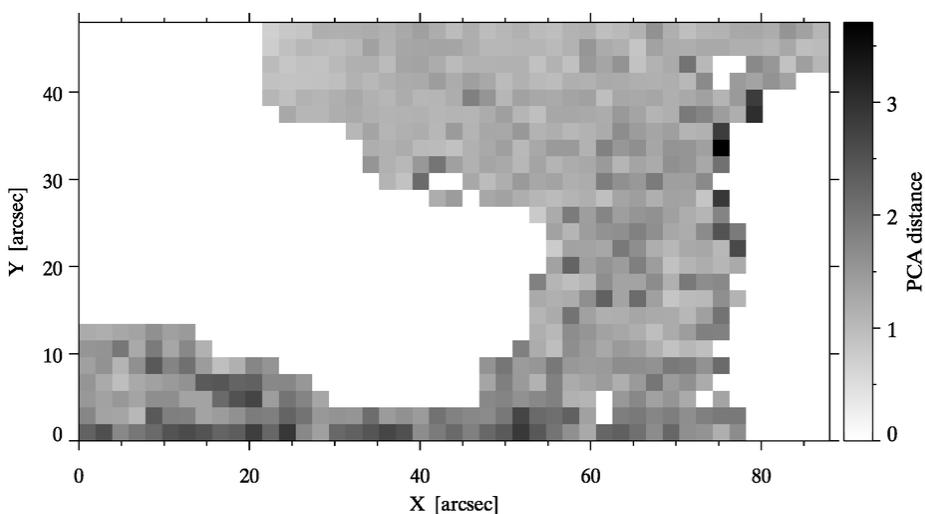


Azimuth LOS RS

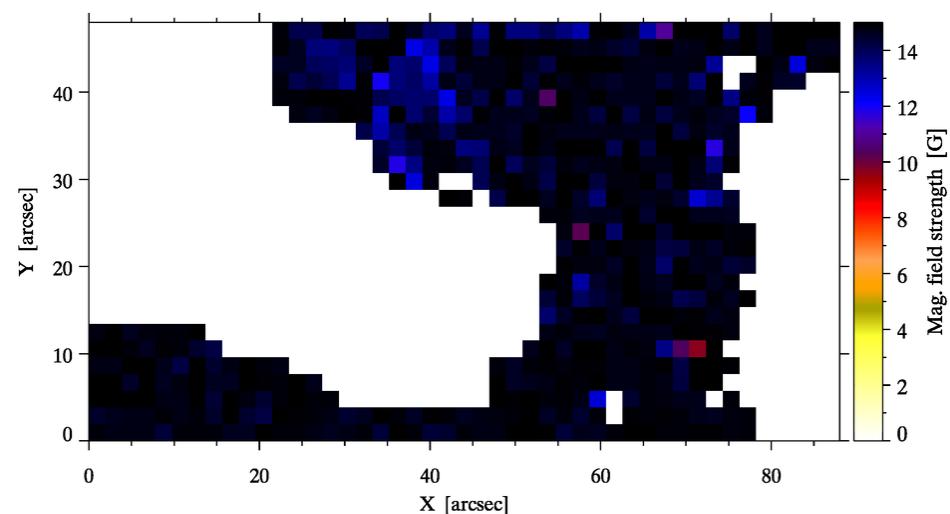


2014-08-02 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

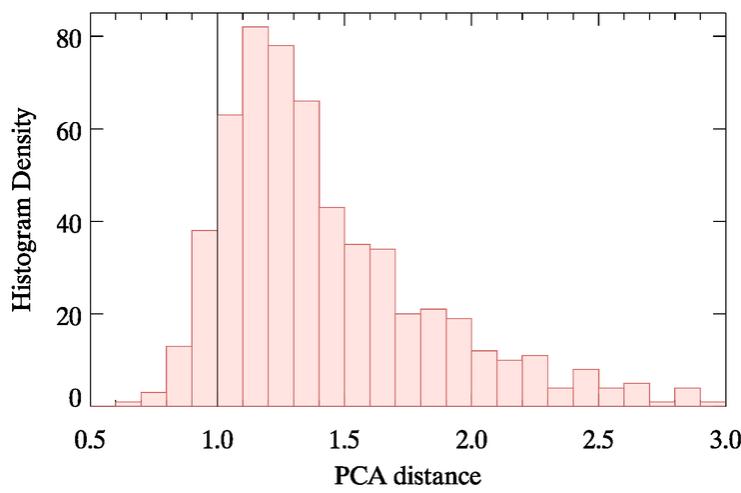
PCA distance



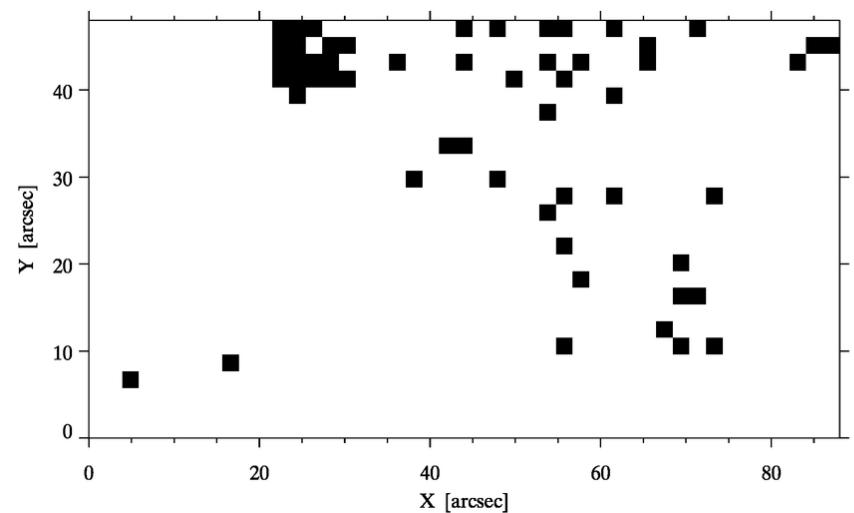
Mag. field strength



PCA distance

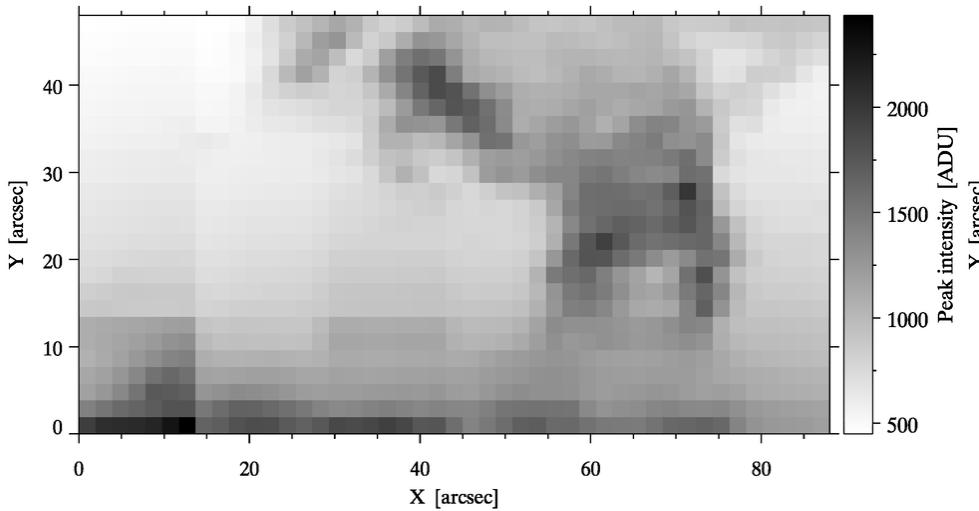


PCA distance  $< 1$

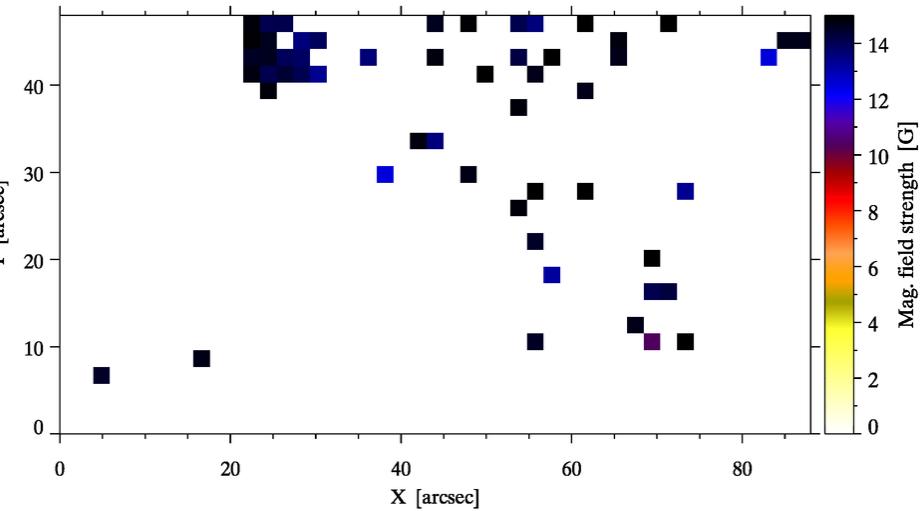


2014-08-02 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

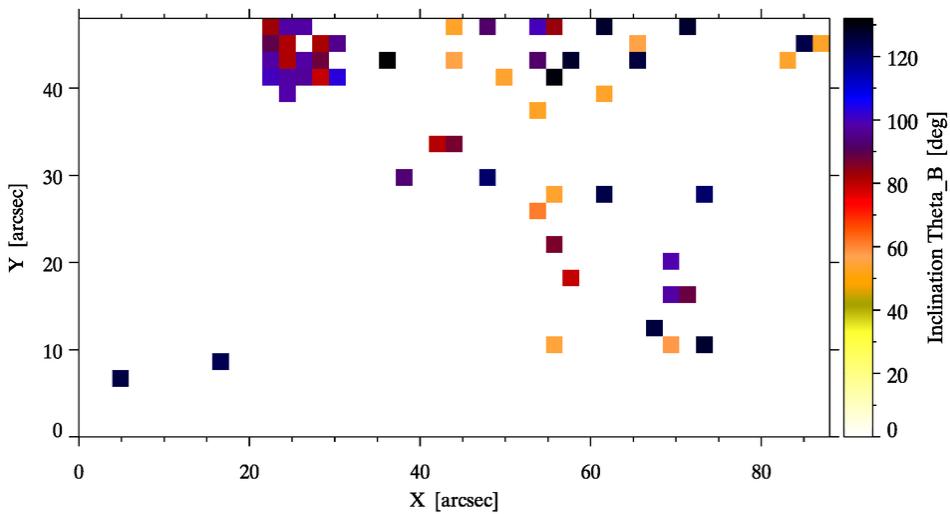
Peak intensity



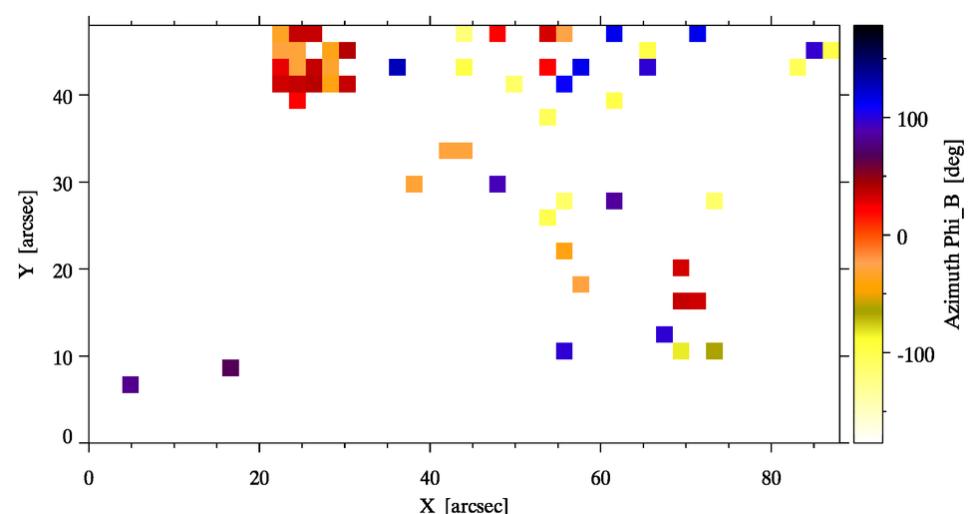
Mag. field strength at PCA < 1



Inclination LOC RS at PCA < 1

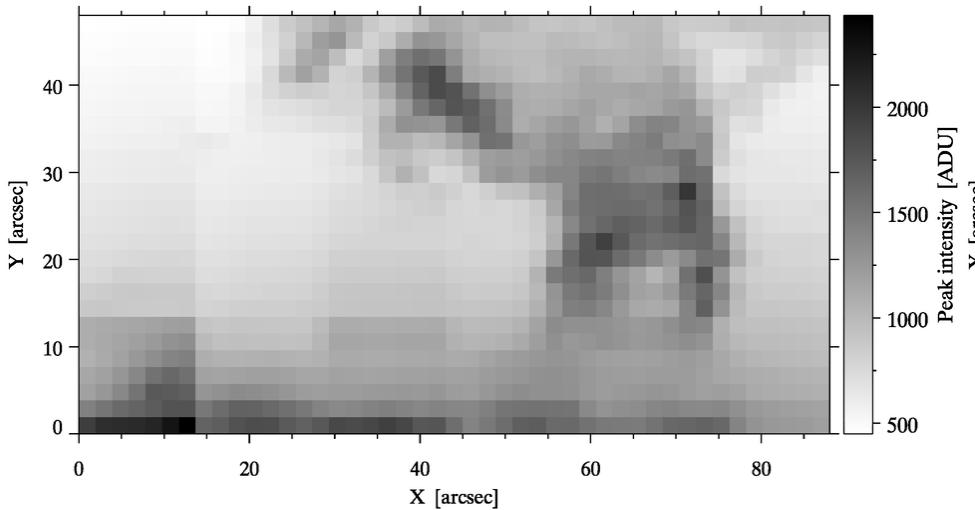


Azimuth LOC RS at PCA < 1

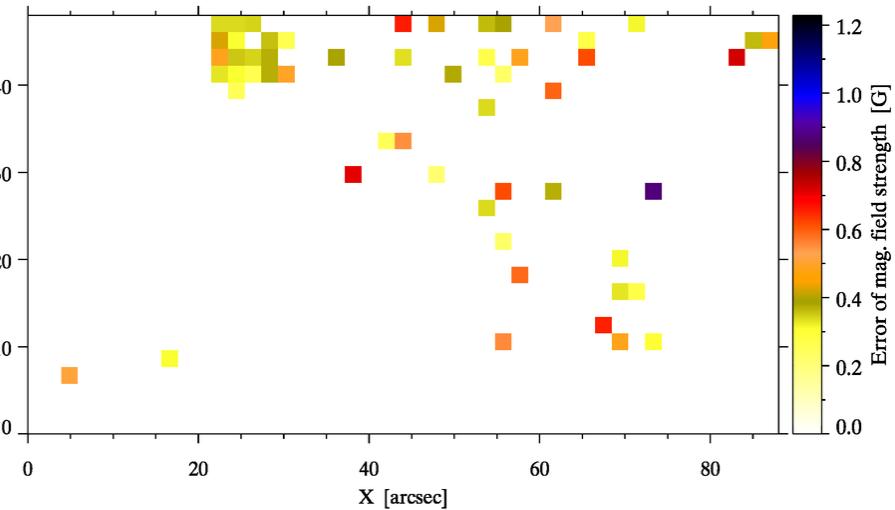


2014-08-02 binning 2"×1" (9 px × 1 px )

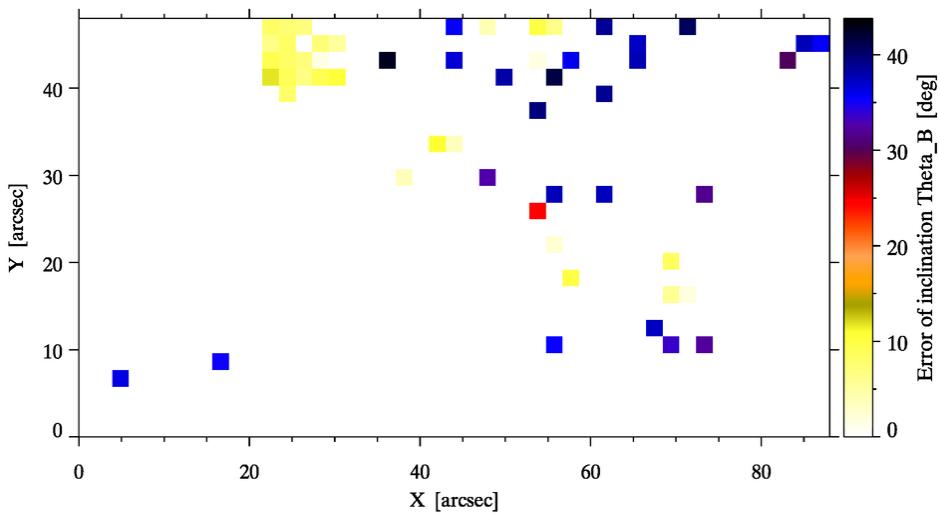
Peak intensity



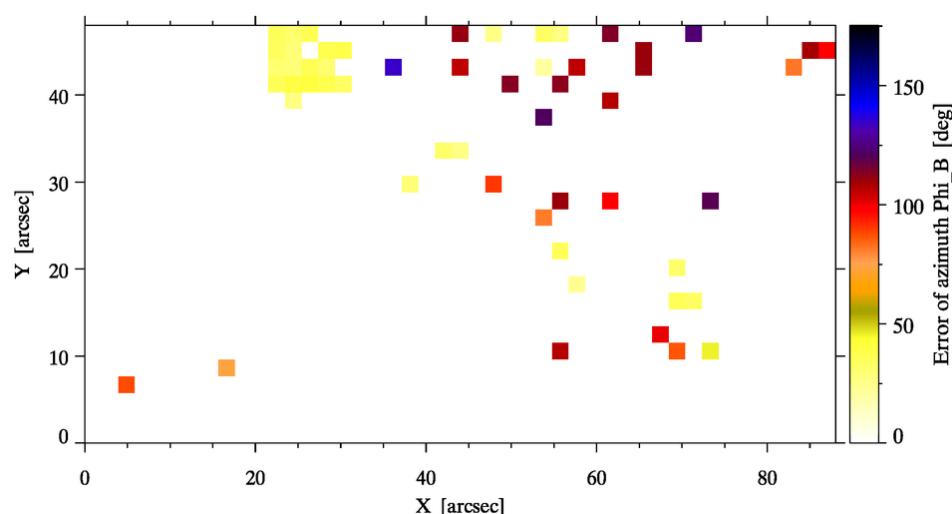
Errors of mag. field strength at PCA < 1



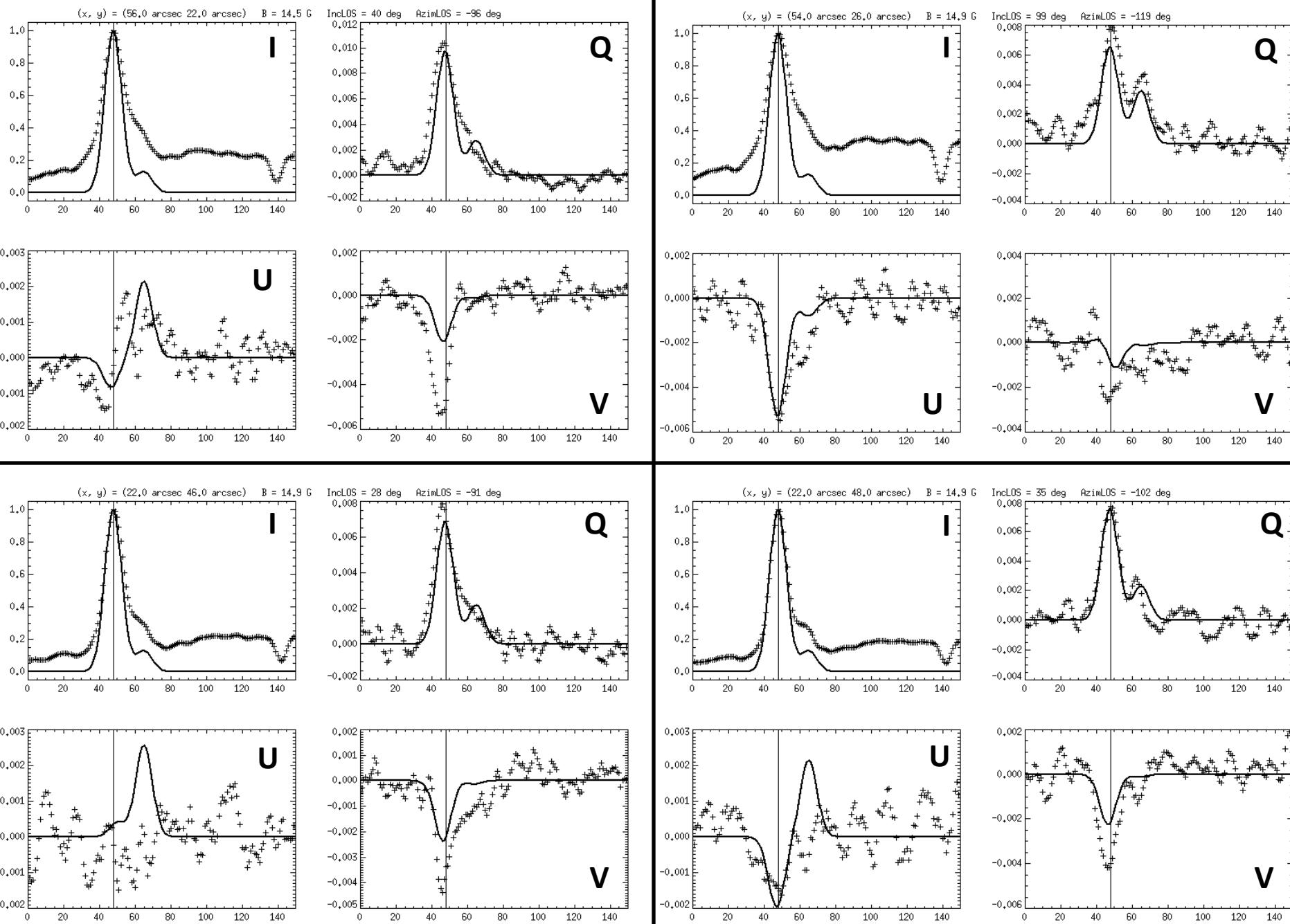
Errors of inclination LOC RS at PCA < 1



Errors of azimuth LOC RS at PCA < 1



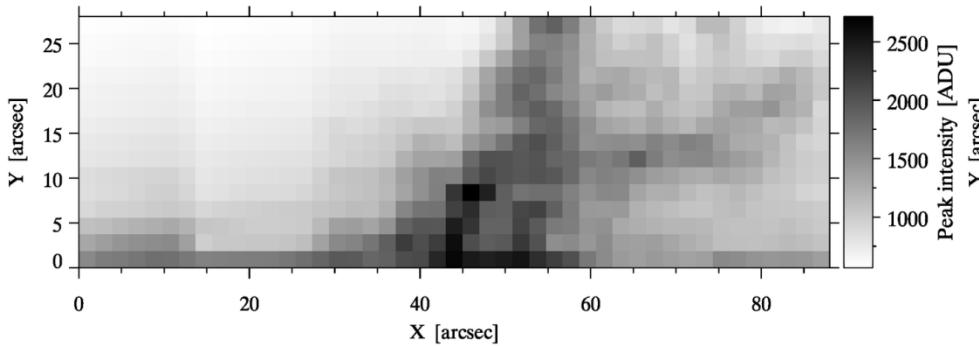
4 best fits with the PCA distance  $\leq 0.8$



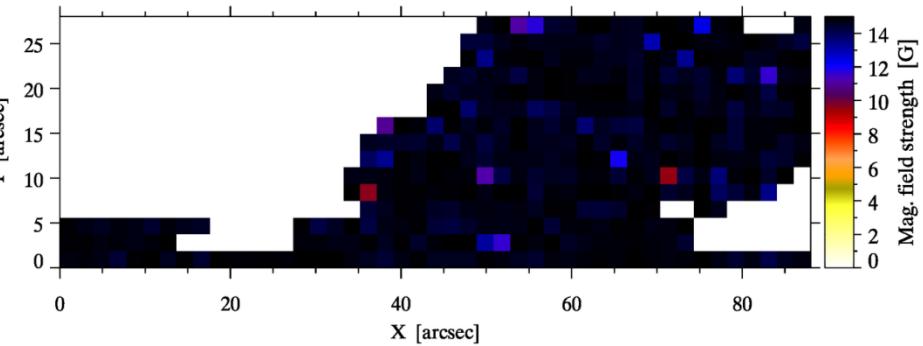
1 August 2014

2014-08-01 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

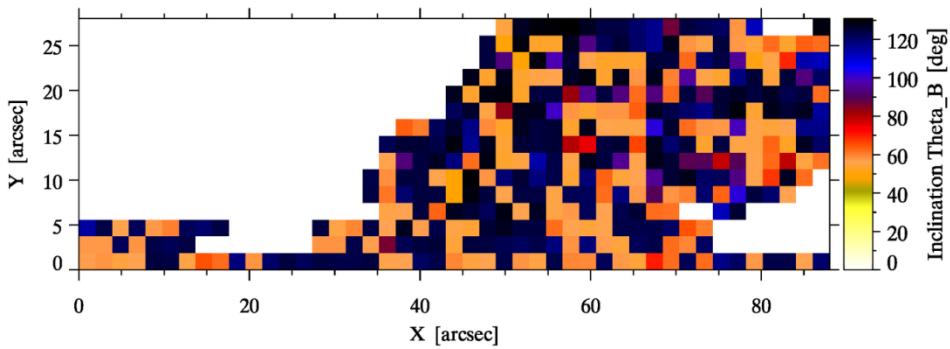
Peak intensity



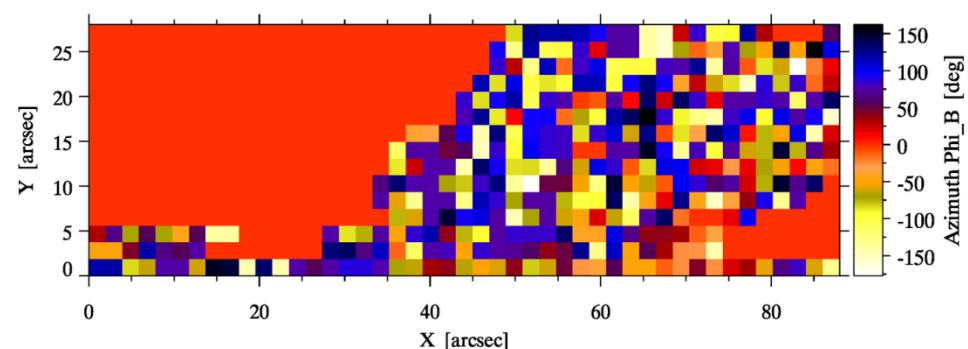
Mag. field strength



Inclination LOC RS

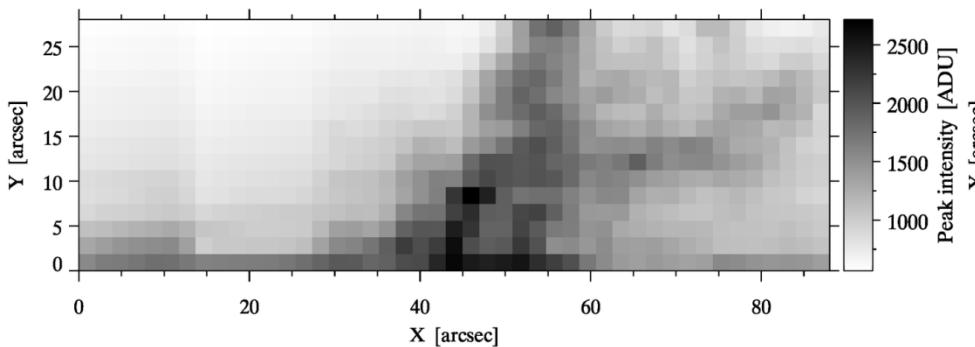


Azimuth LOC RS

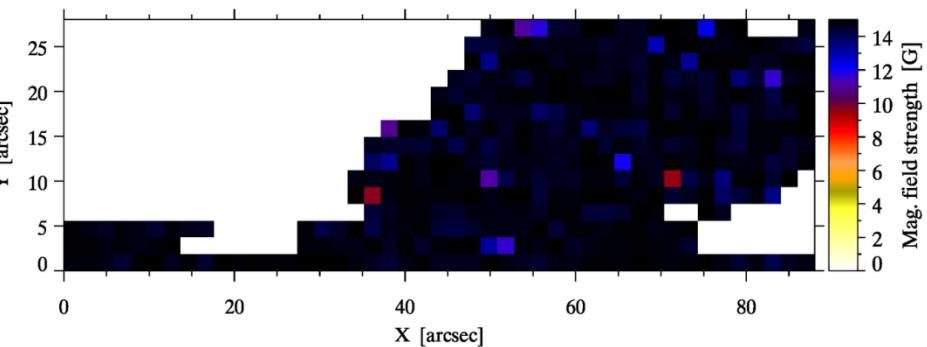


2014-08-01 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

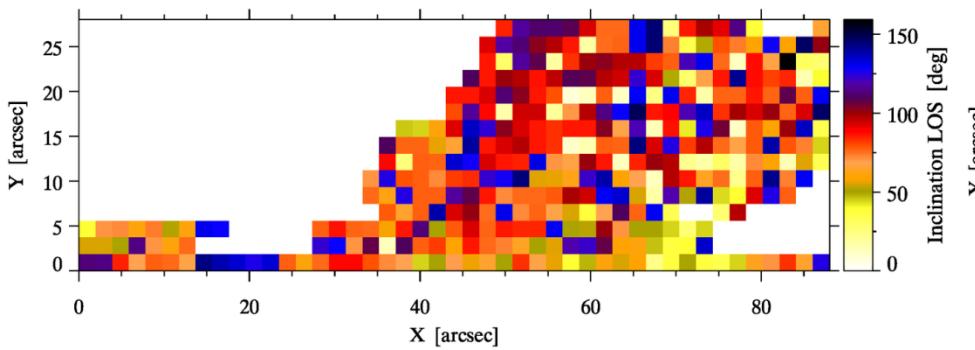
Peak intensity



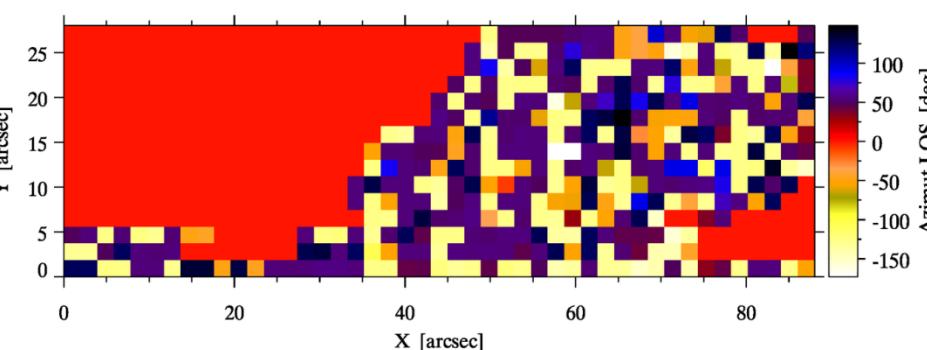
Mag. field strength



Inclination LOS RS

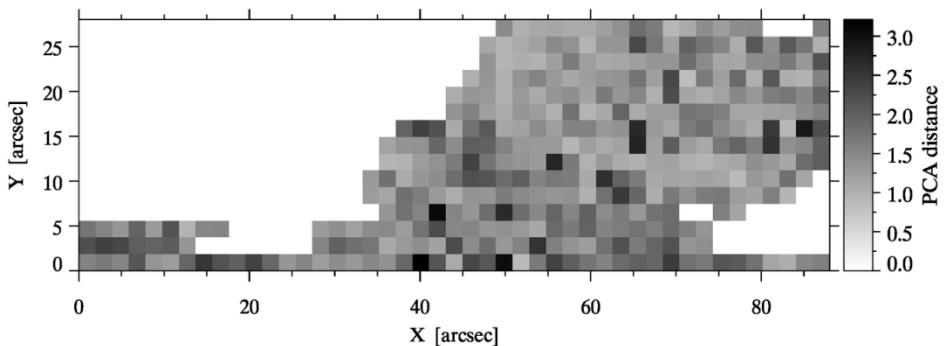


Azimuth LOS RS

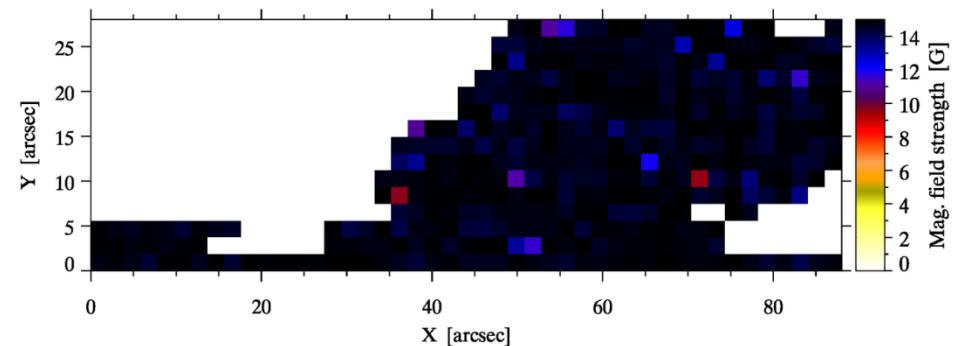


2014-08-01 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

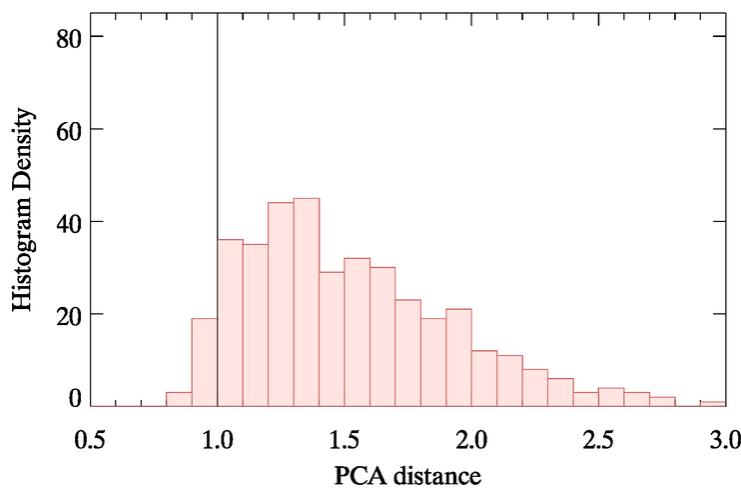
PCA distance



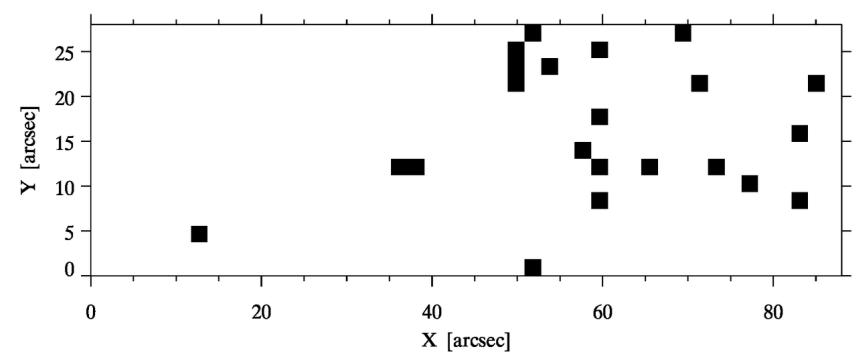
Mag. field strength



PCA distance

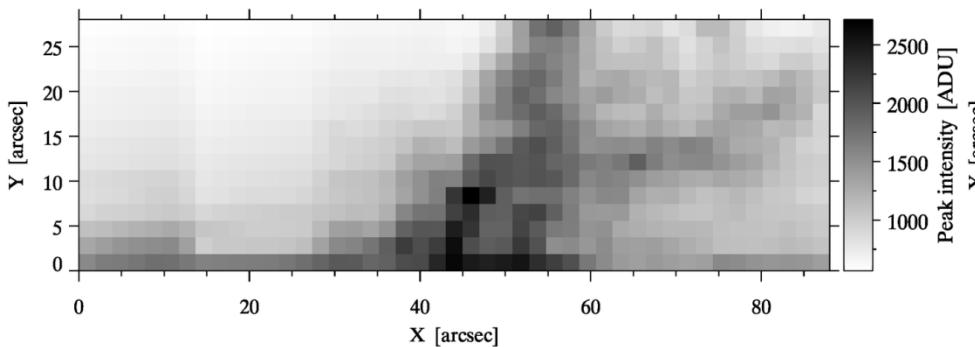


PCA distance  $< 1$

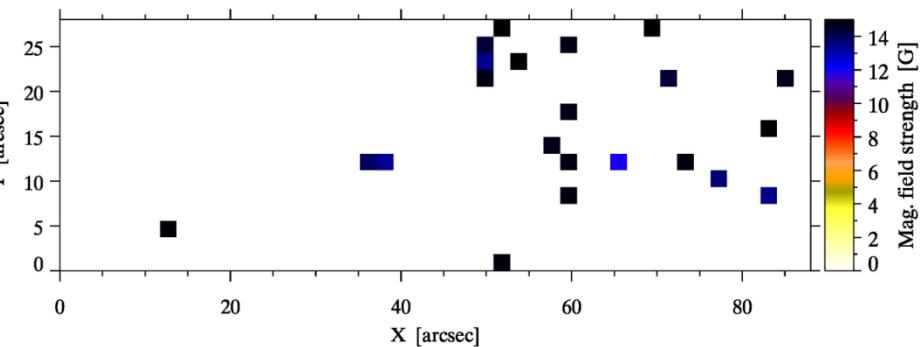


2014-08-01 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

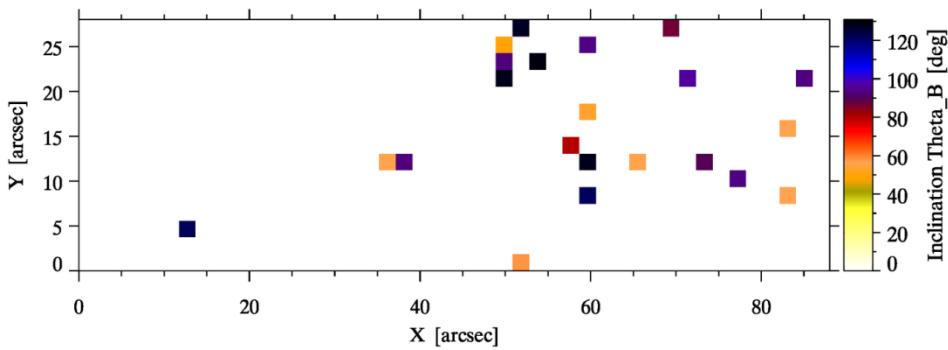
Peak intensity



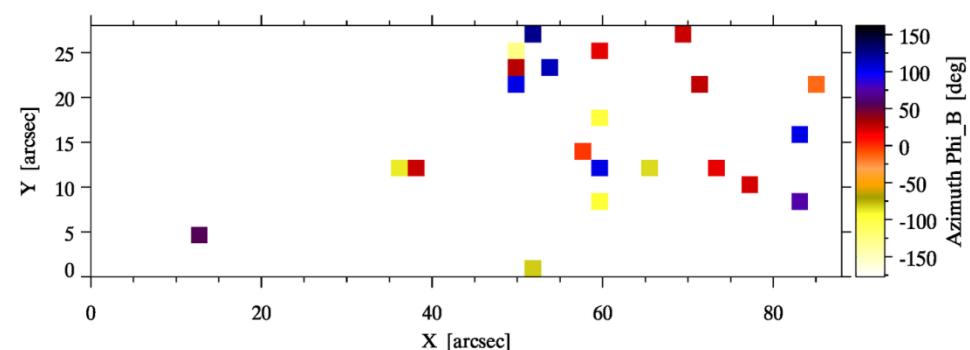
Mag. field strength at PCA < 1



Inclination LOC RS at PCA < 1

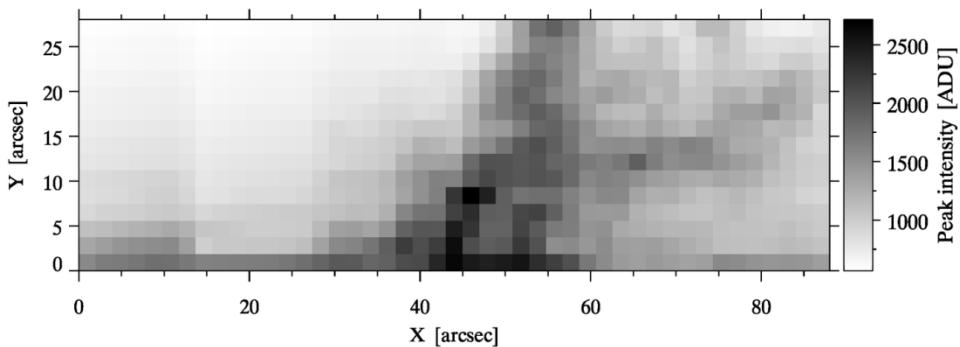


Azimuth LOC RS at PCA < 1

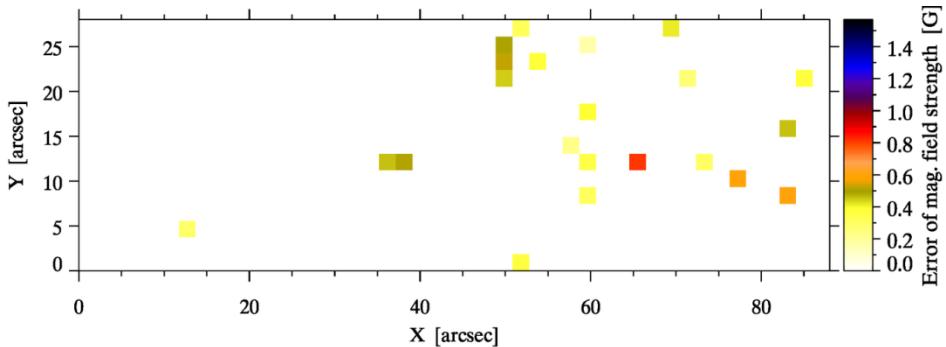


2014-08-01 binning  $2'' \times 1''$  (9 px  $\times$  1 px )

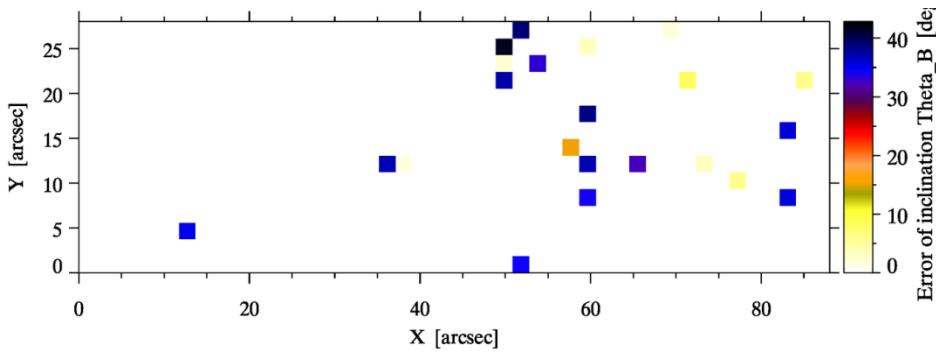
Peak intensity



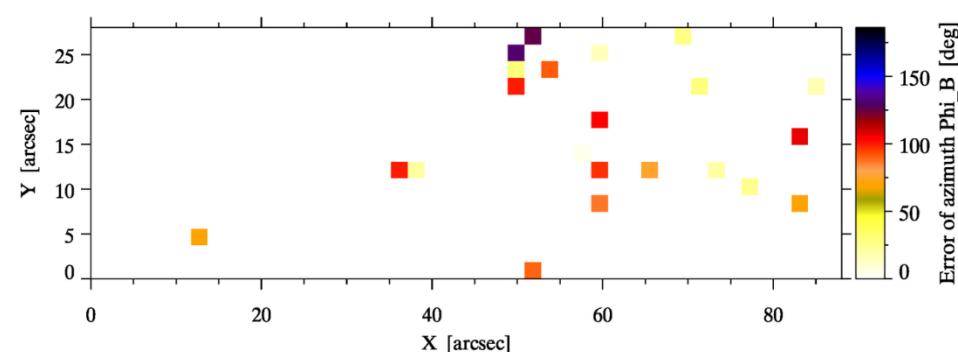
Errors of mag. field strength at PCA < 1



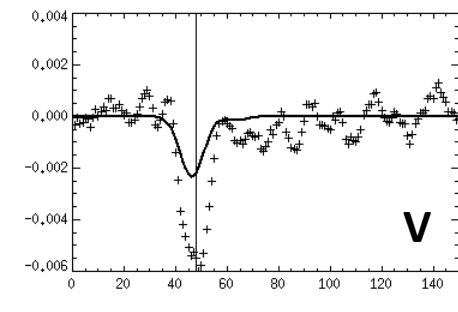
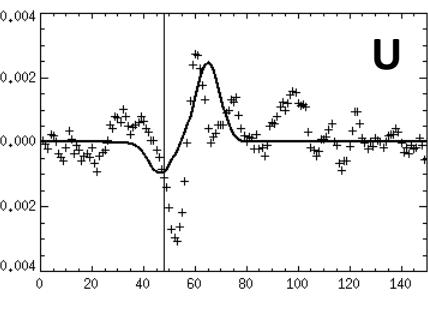
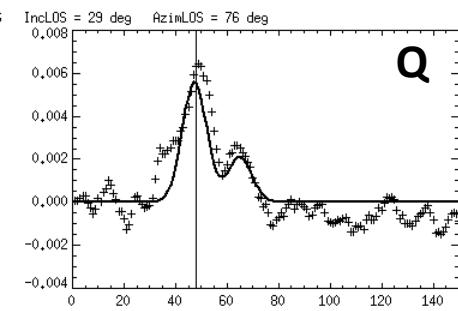
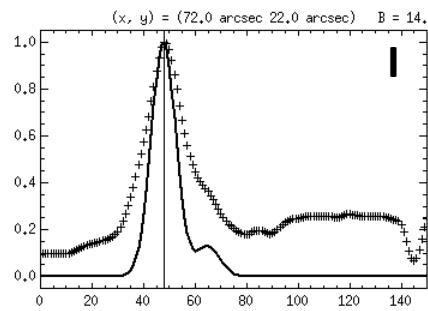
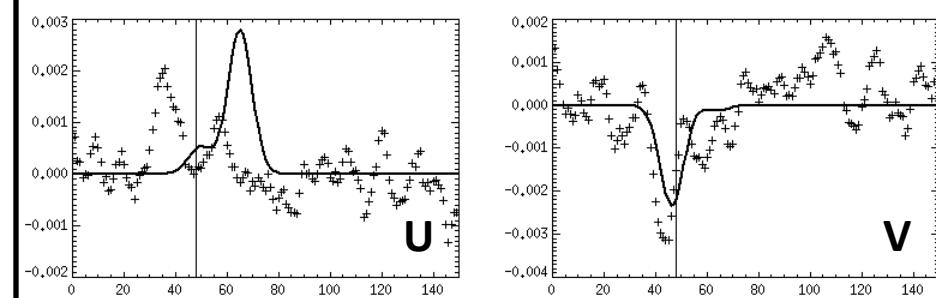
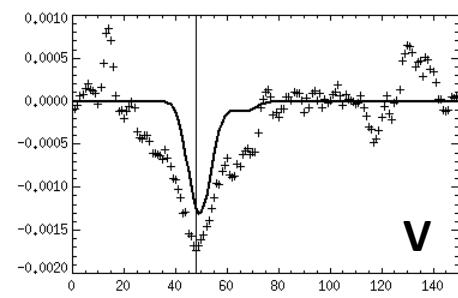
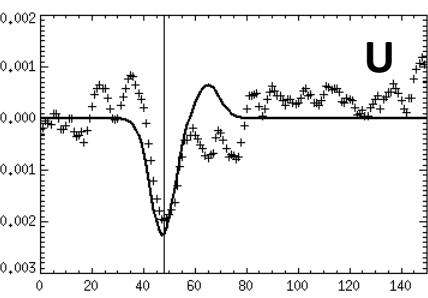
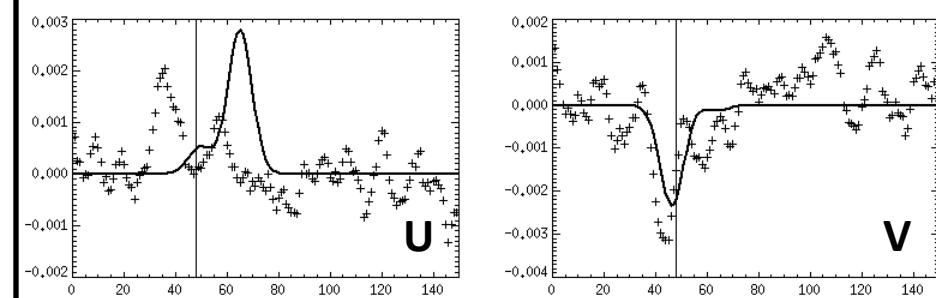
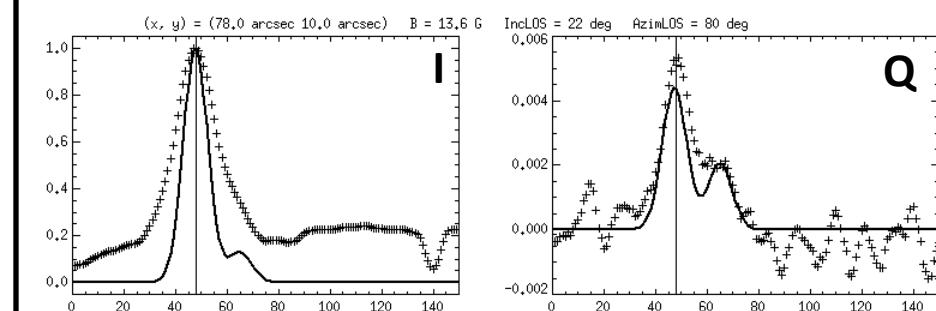
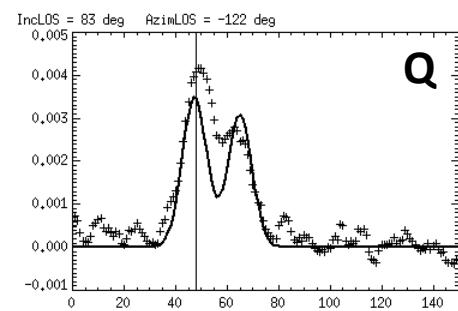
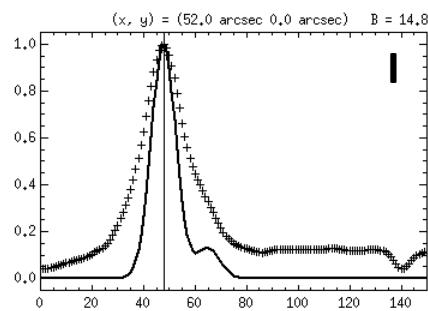
Errors of inclination LOC RS at PCA < 1



Errors of azimuth LOC RS at PCA < 1



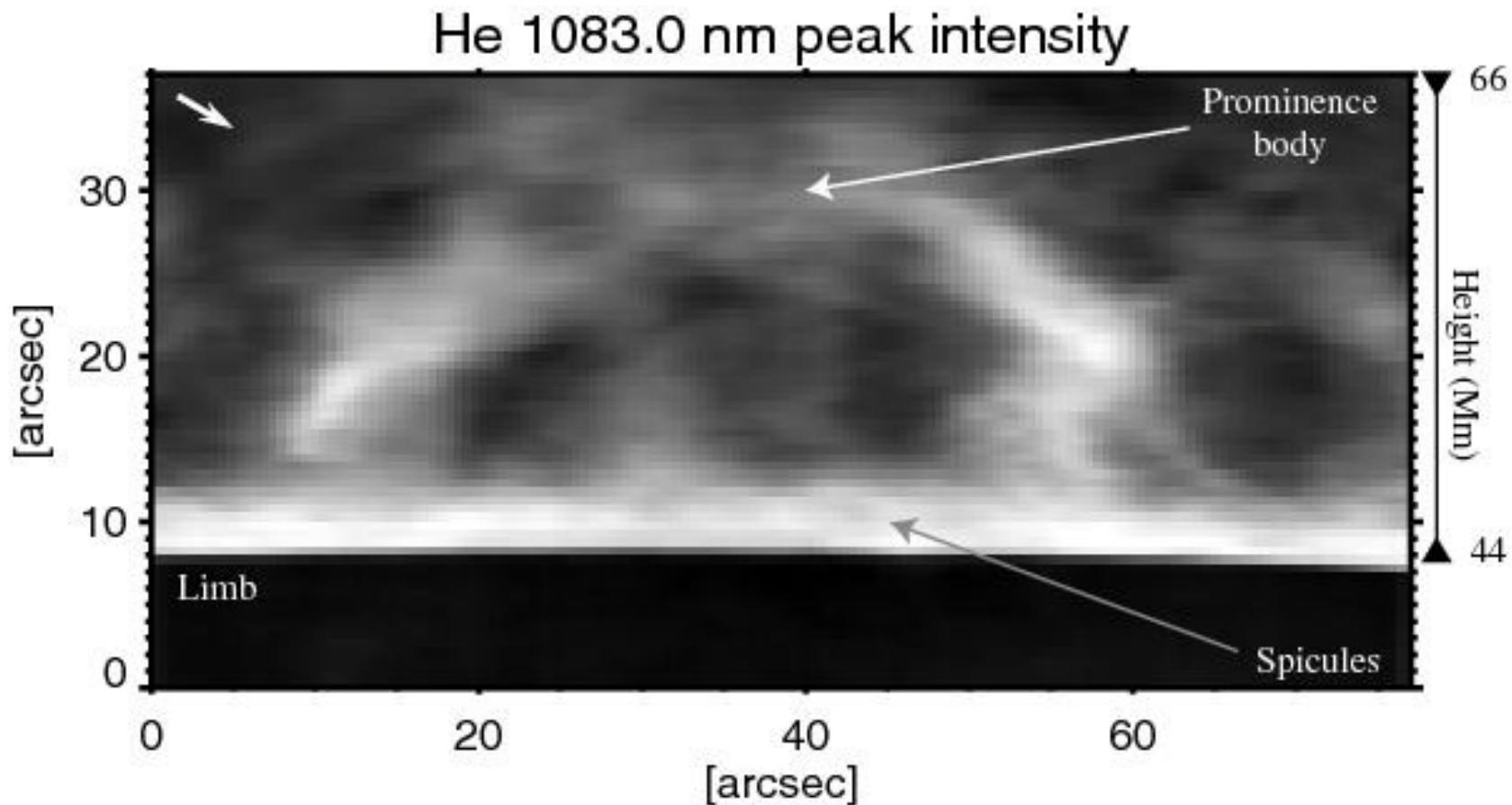
3 best fits with the PCA distance  $\leq 0.9$

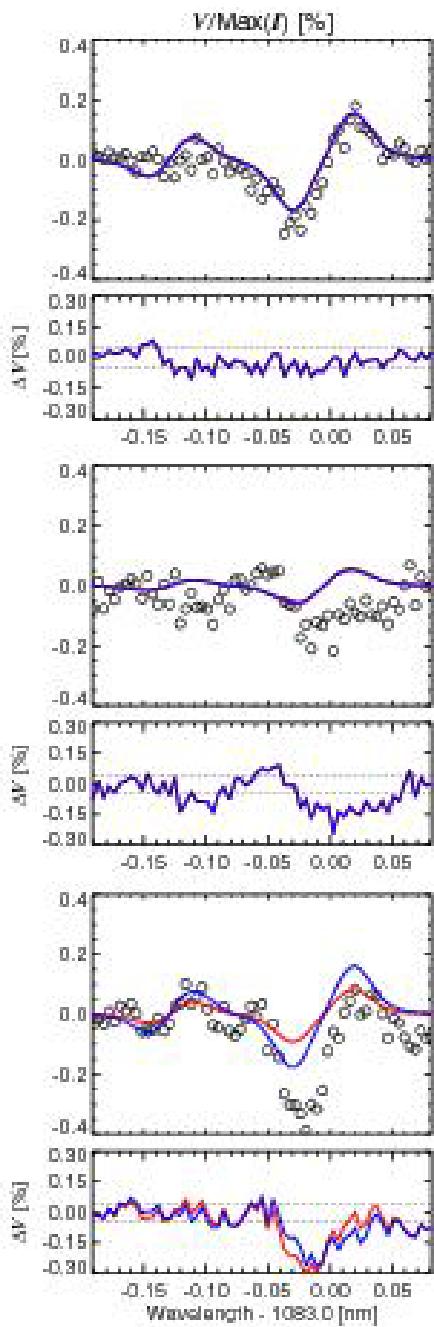
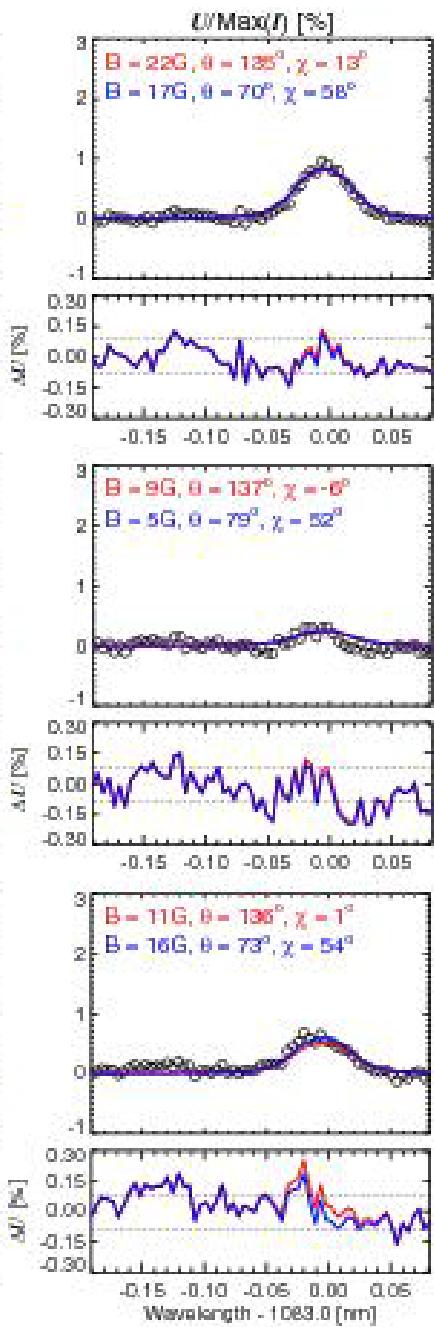
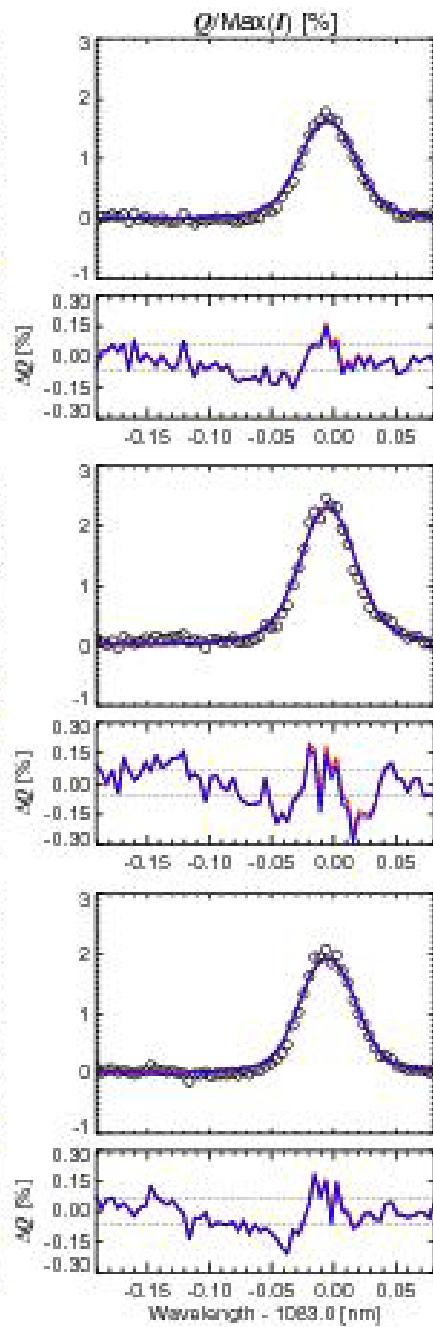
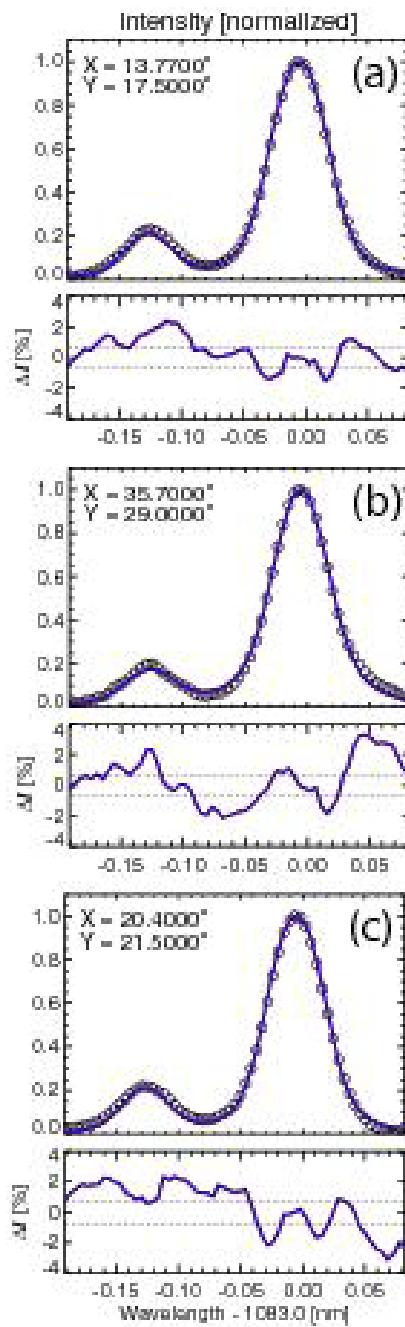


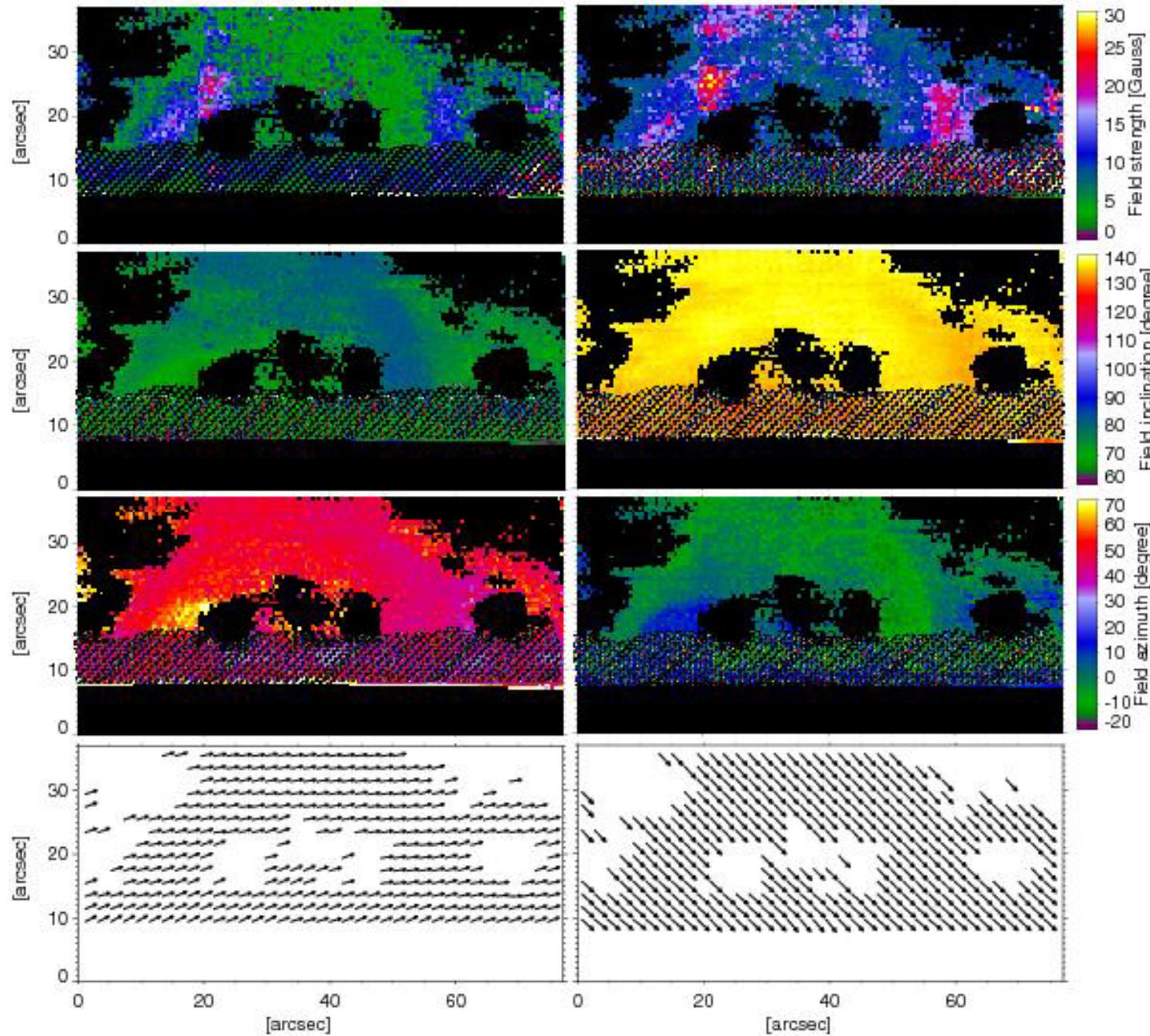
# The magnetic field configuration of a solar prominence inferred from spectropolarimetric observations in the He I 10 830 Å triplet

D. Orozco Suárez, A. Asensio Ramos and J. Trujillo Bueno

A&A, Vol. 566, June 2014, Article Number A46





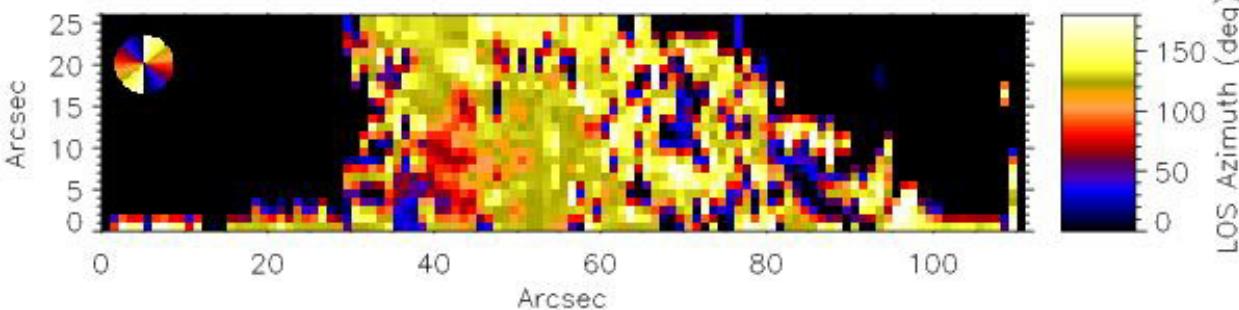
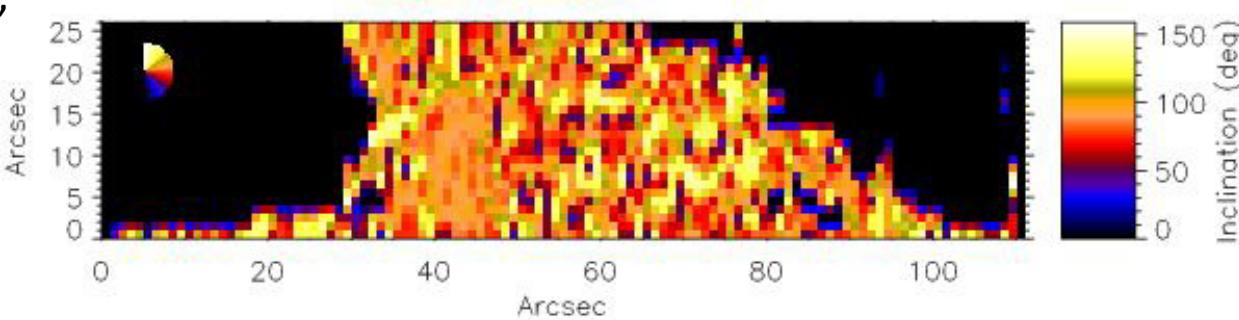
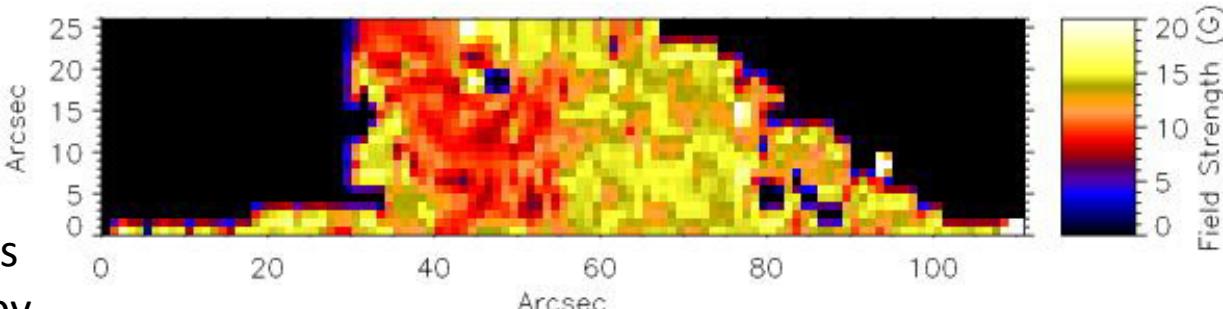
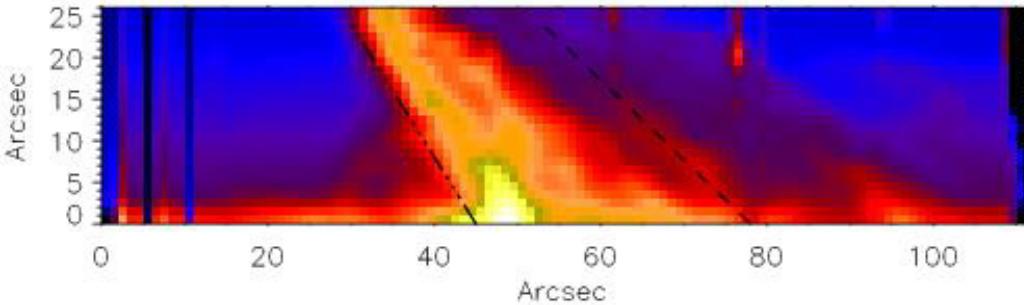


Schmieder et al. (2014)  
Astronomy & Astrophysics

Open questions on prominences  
from coordinated observations by  
IRIS, Hinode, SDO/AIA, THEMIS,  
and the Meudon/MSDP

Figure by A. López Ariste

Indukcia magnetického pol'a  
protuberancie: 0 – 20 G



# Conclusions