

Letnja praksa u Ondrejovu:

“Automatizacija procesa detekcije i praćenja magnetnih elemenata sa HMI-sharp snimaka”

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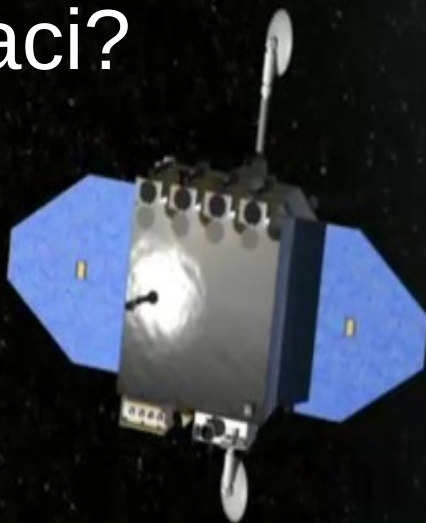
SAR, 2019.

# Automatizacija procesa detekcije i praćenja magnetnih elemenata sa HMI-sharp snimaka

Šta su HMI podaci?

Šta smo radili?

Rezultati



# HMI-sharp podaci

SDO: The Solar Dynamics Observatory

Helioseismic and Magnetic Imager (HMI)

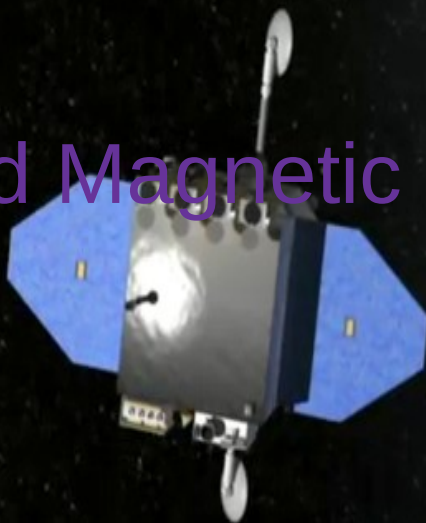
Magnetogrami

Doplergrami

Kontinuum

Dubina linije

Širina linije





# HMI-sharp podaci

HARP

HMI Active Region  
Patches

SHARP

Space-Weather HMI  
Active Region  
Patches



# Zadatak

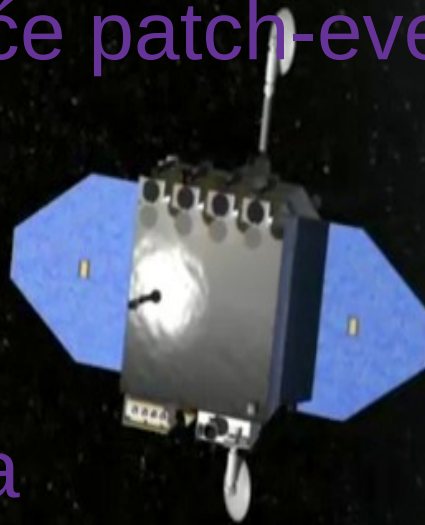
Naći odgovarajuće patch-eve

HARP 3481

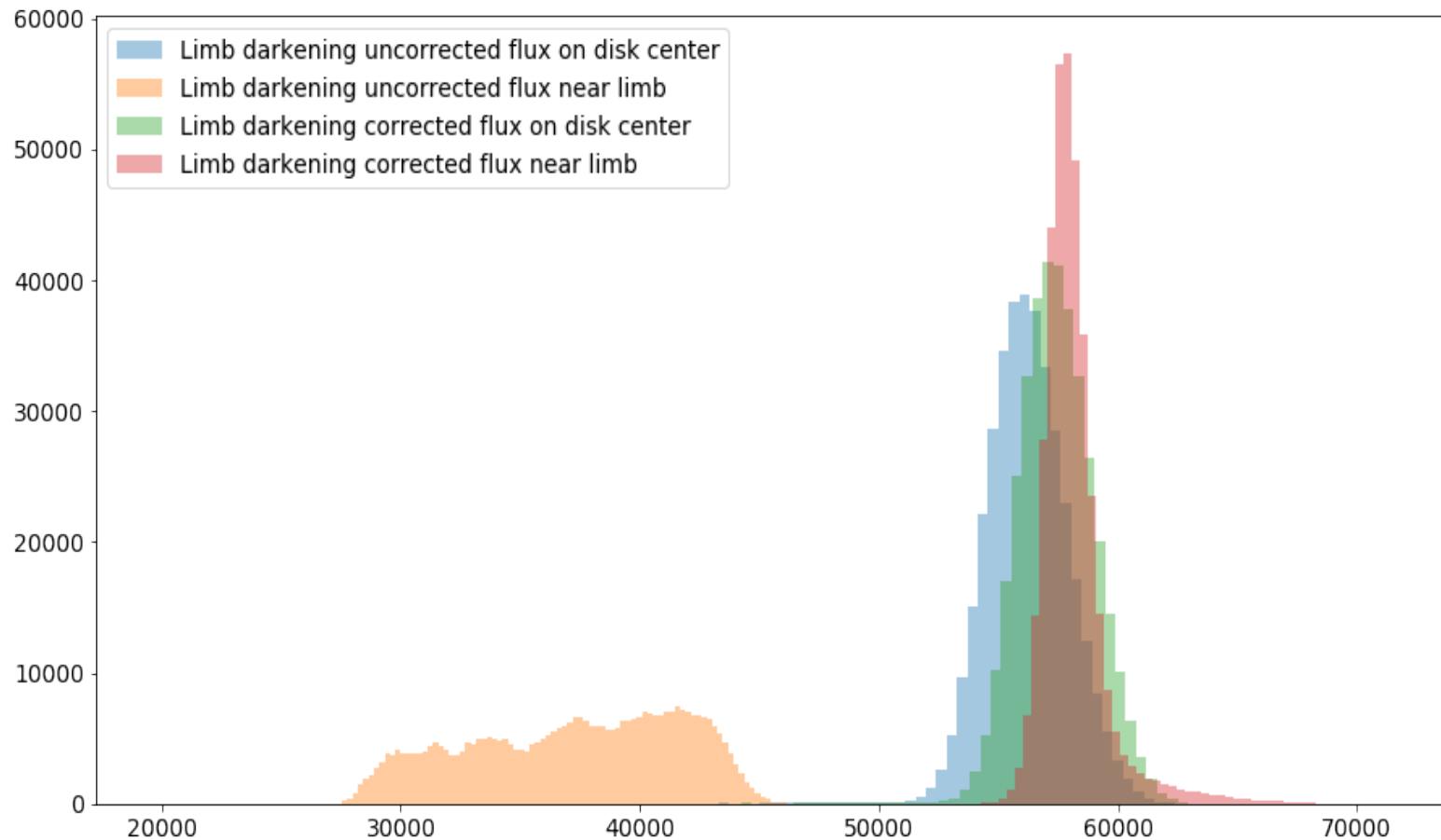
HARP 3604

Obrada podataka

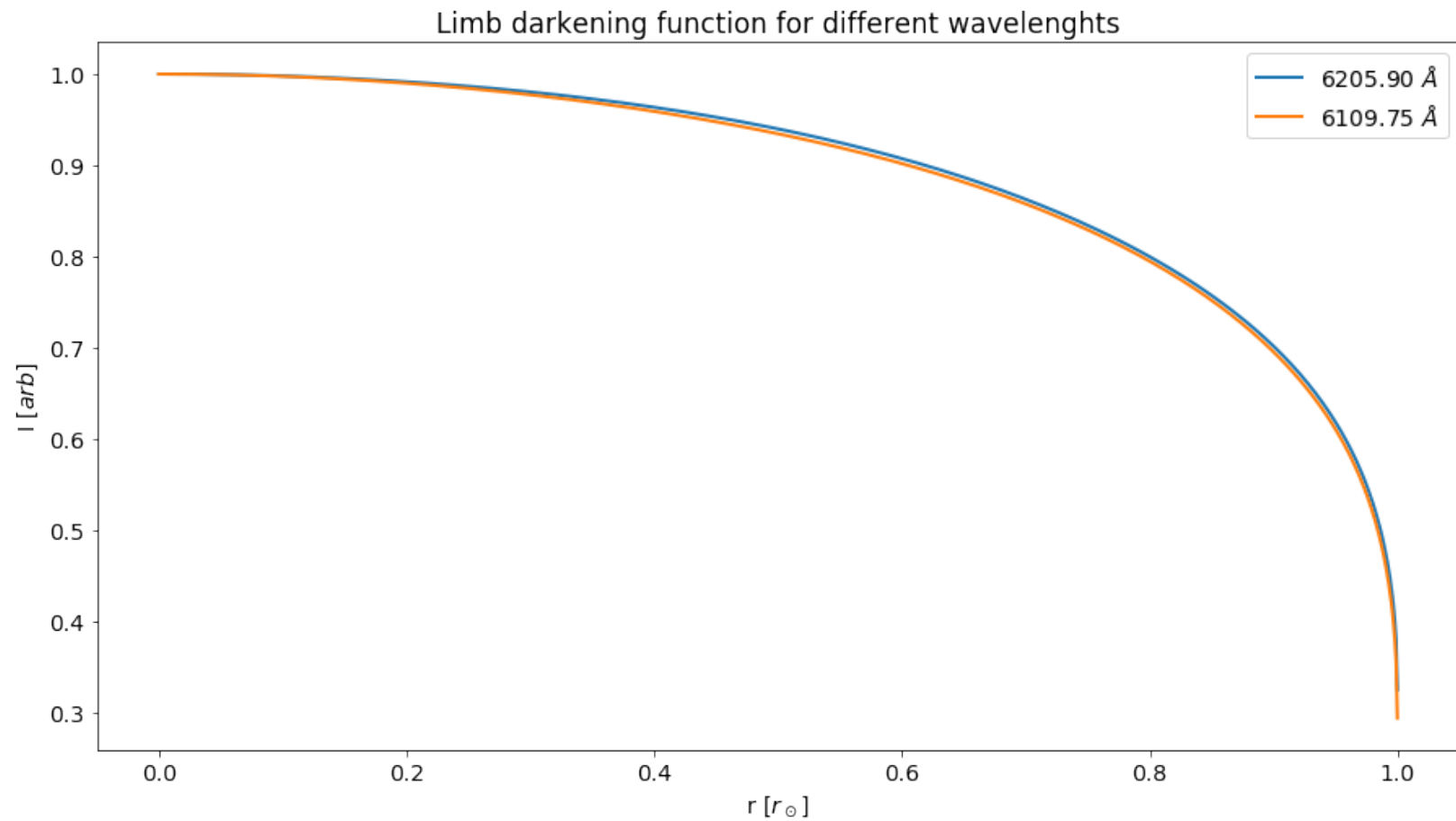
Detekcija i praćenje



# Obrada podataka - Limb darkening korekcija

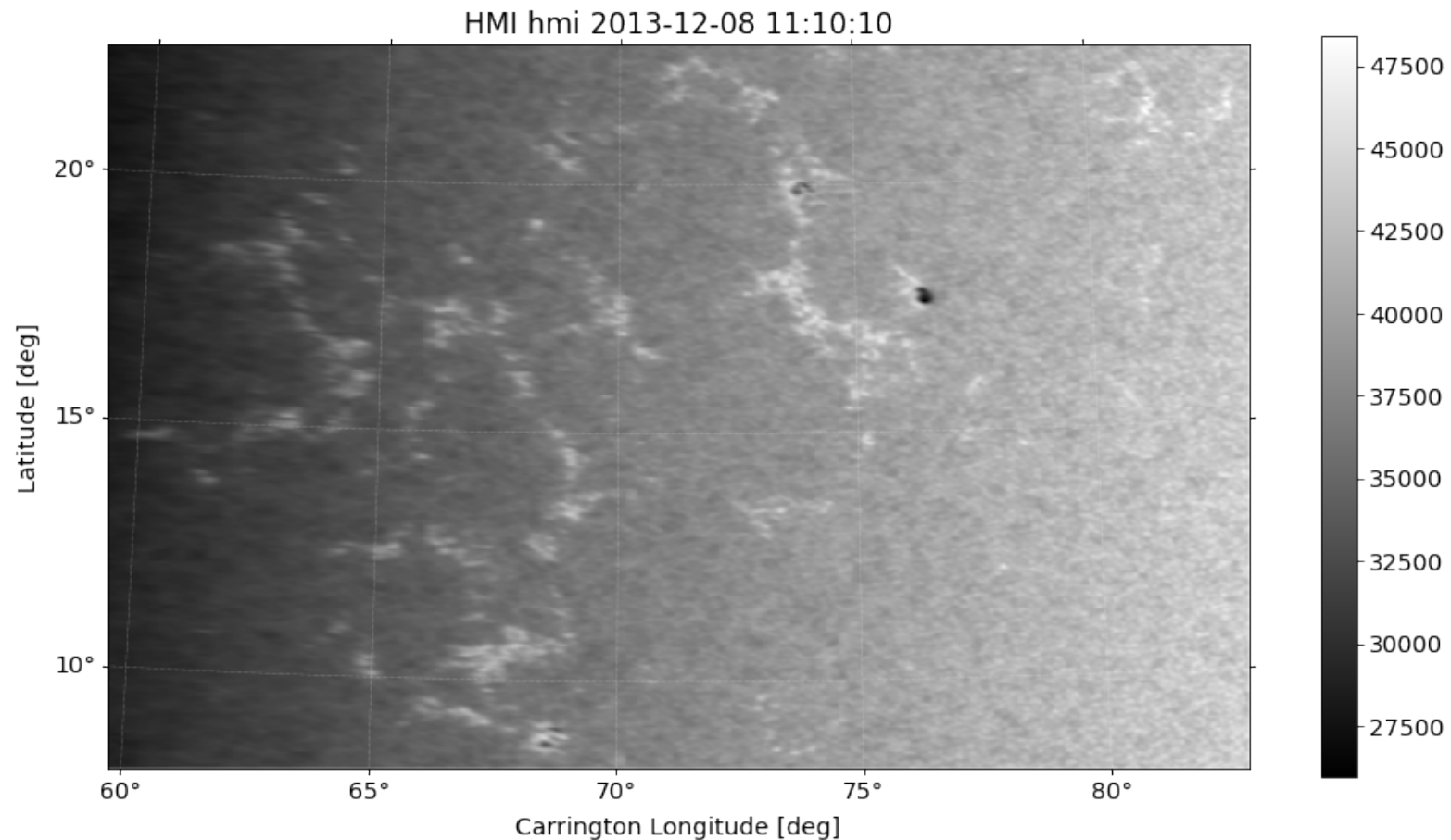


# Obrada podataka - Limb darkening korekcija



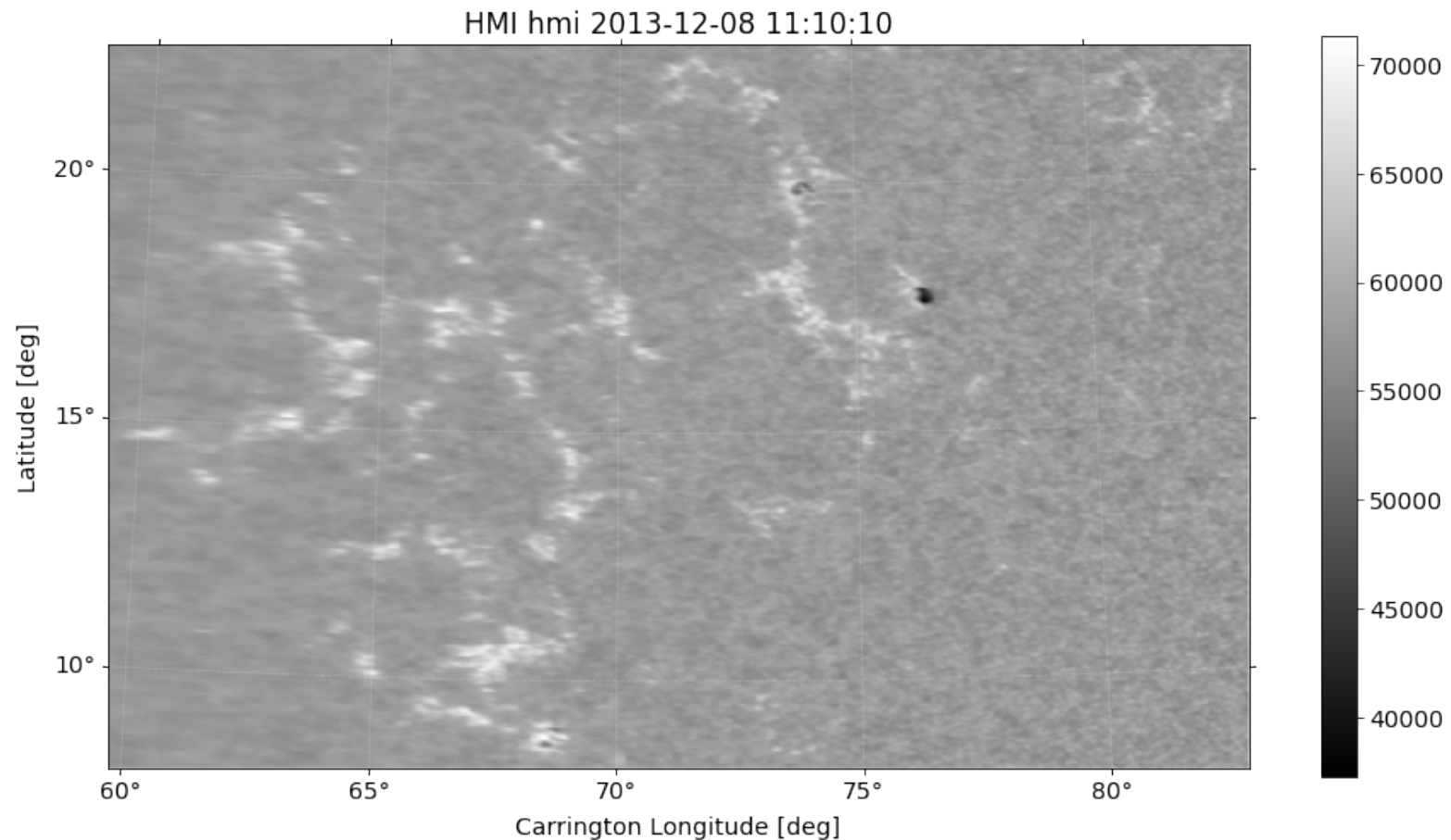


# Obrada podataka - Limb darkening korekcija



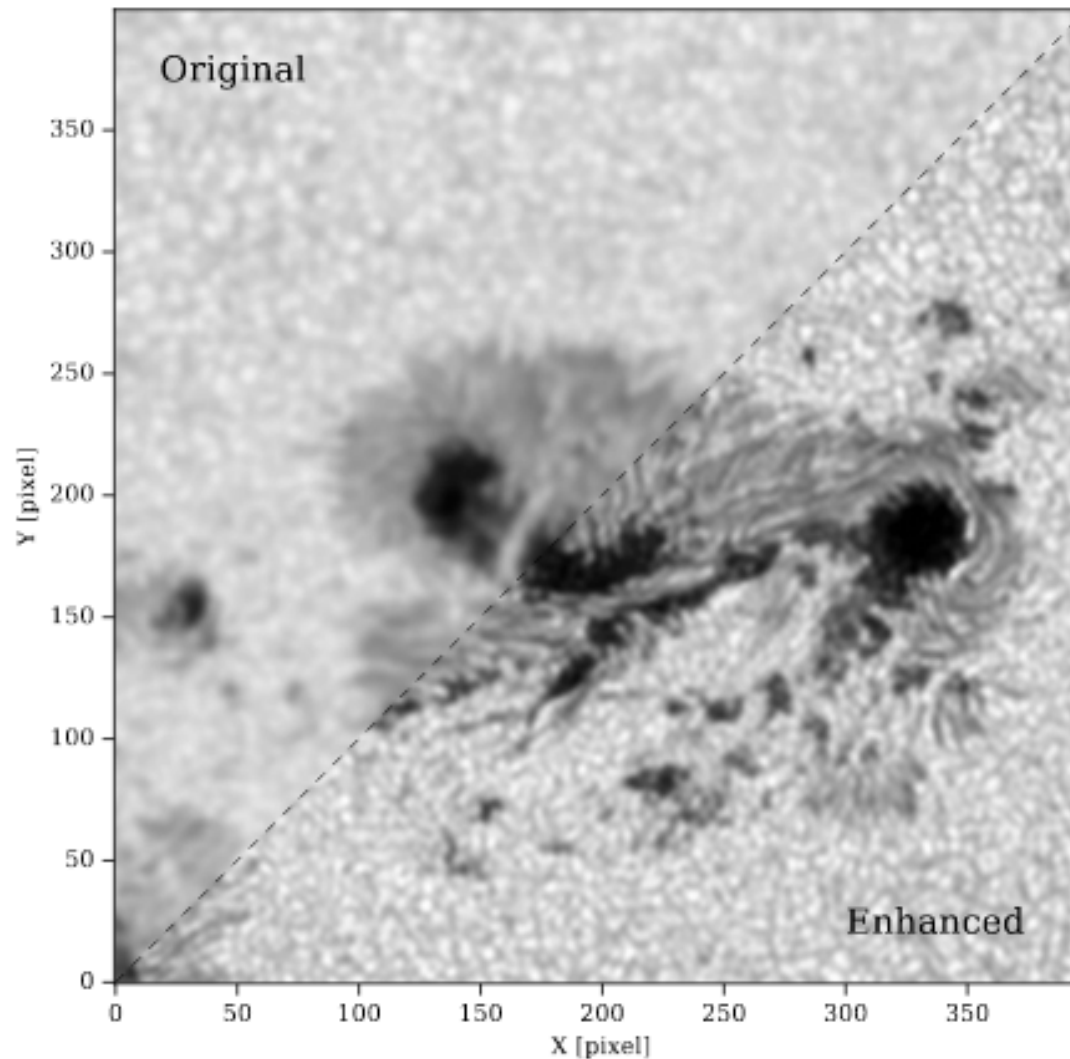


# Obrada podataka - Limb darkening korekcija

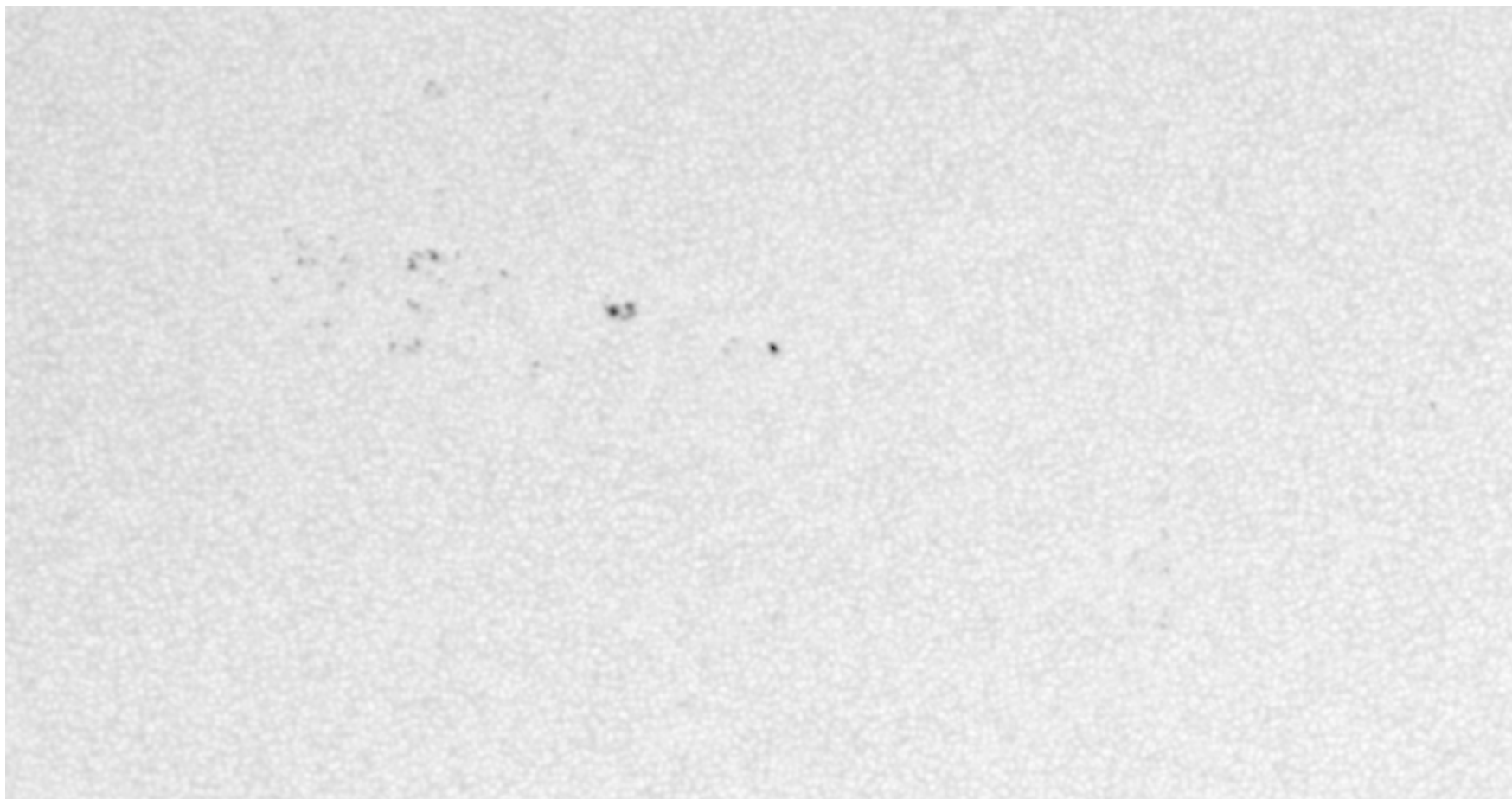


# Obrada podataka - enhance

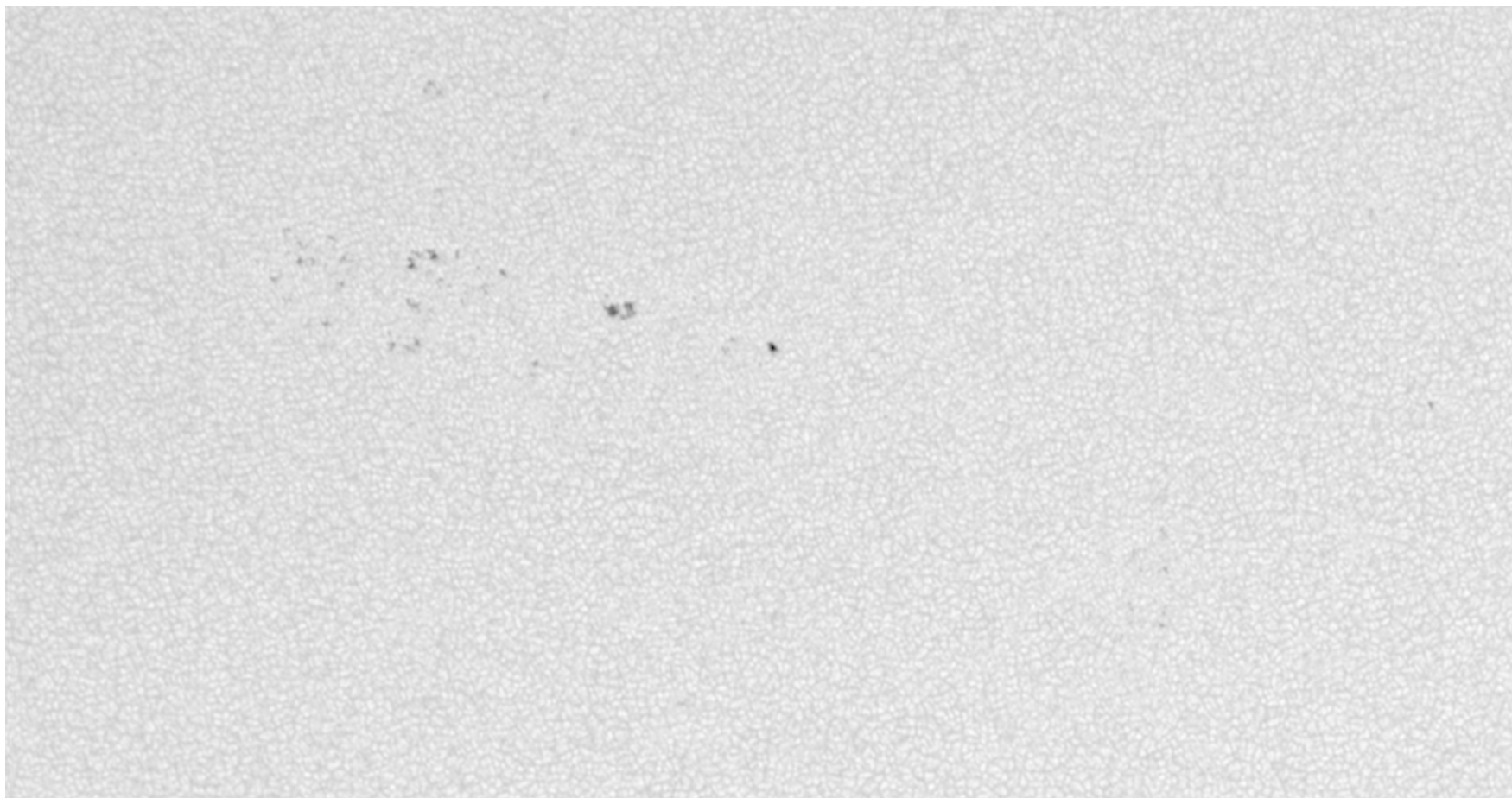
- Poboľšava rezoluciju konvolucijom



# Obrada podataka - enhance

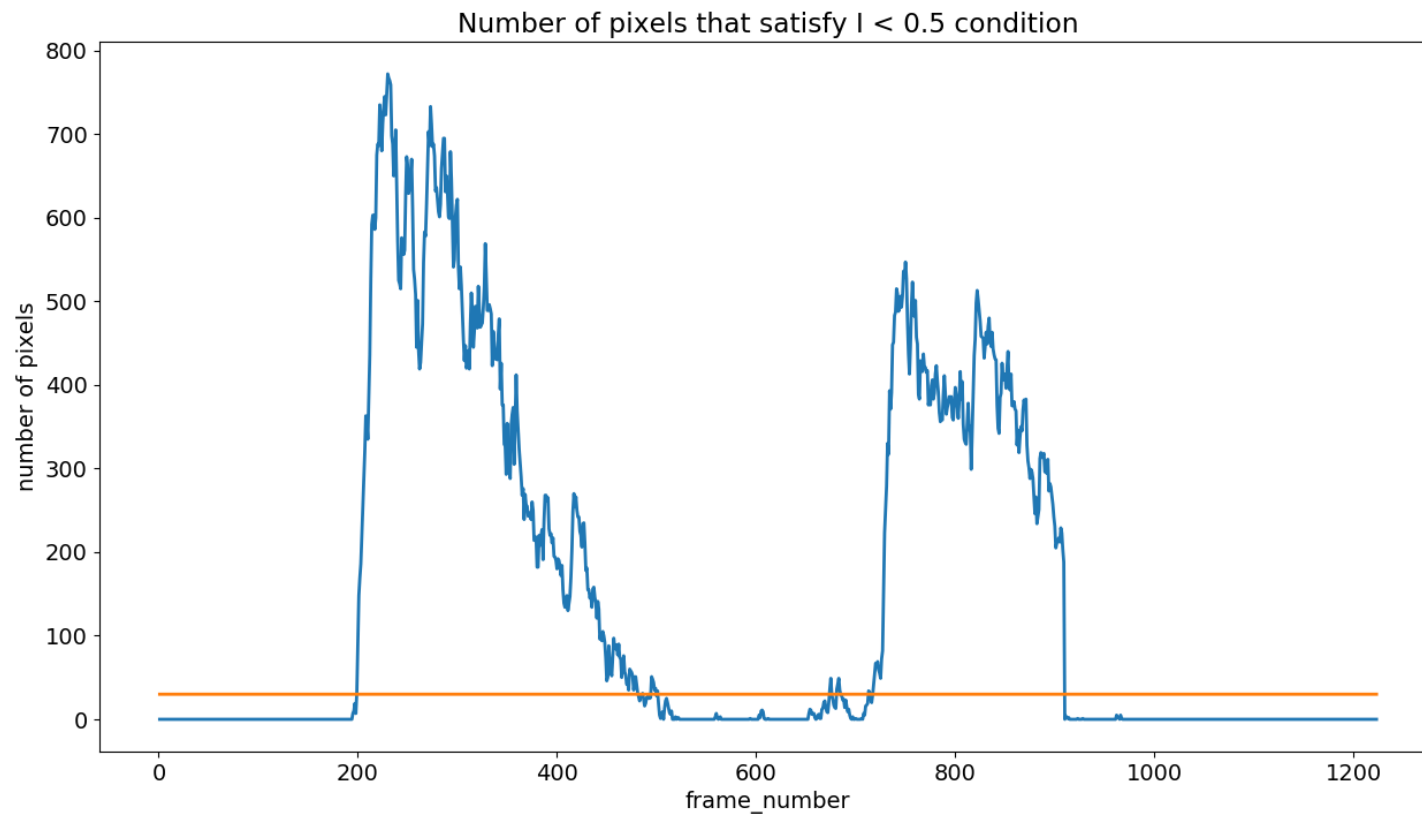


# Obrada podataka - enhance

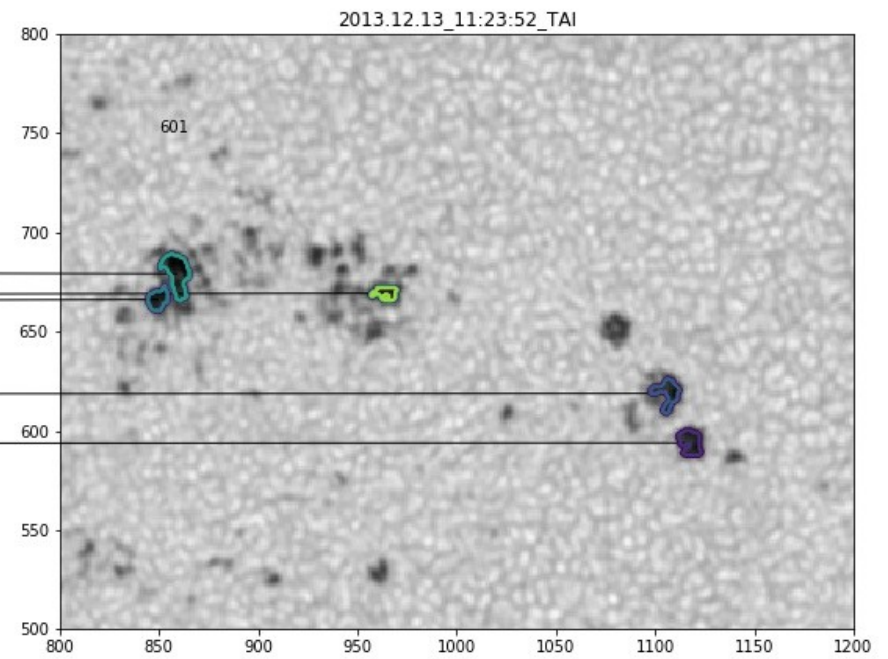
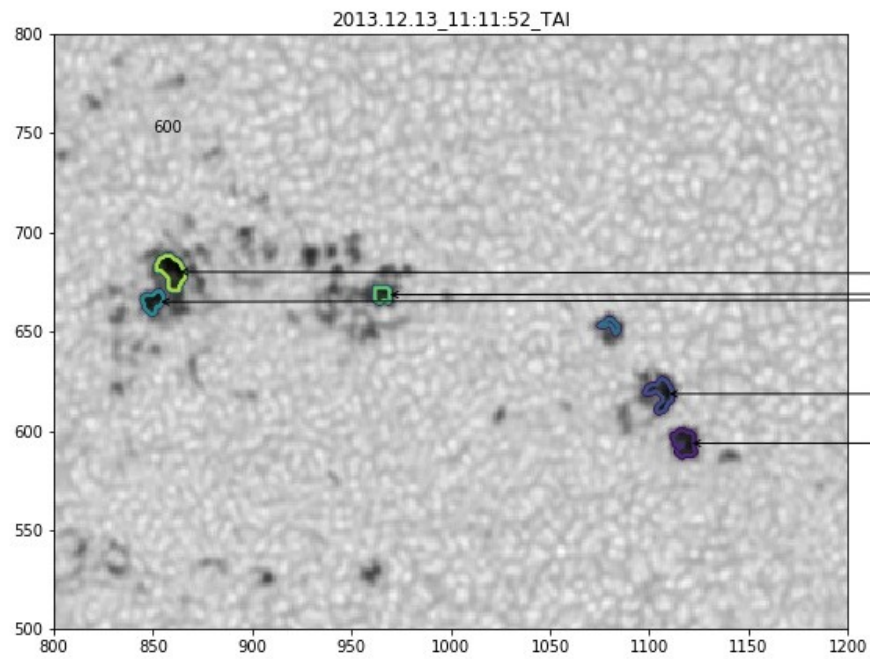




# Detekcija i praćenje



# Detekcija i praćenje



# Šta je ostalo?

Imamo skriptu za obradu podataka

Radimo na praćenju pega

Cilj: da vidimo kako se menjaju inklinacija i azimut magnetnog polja



Hvala!