RHESSI data vs. data simultaneously obtained with the other HXR instruments
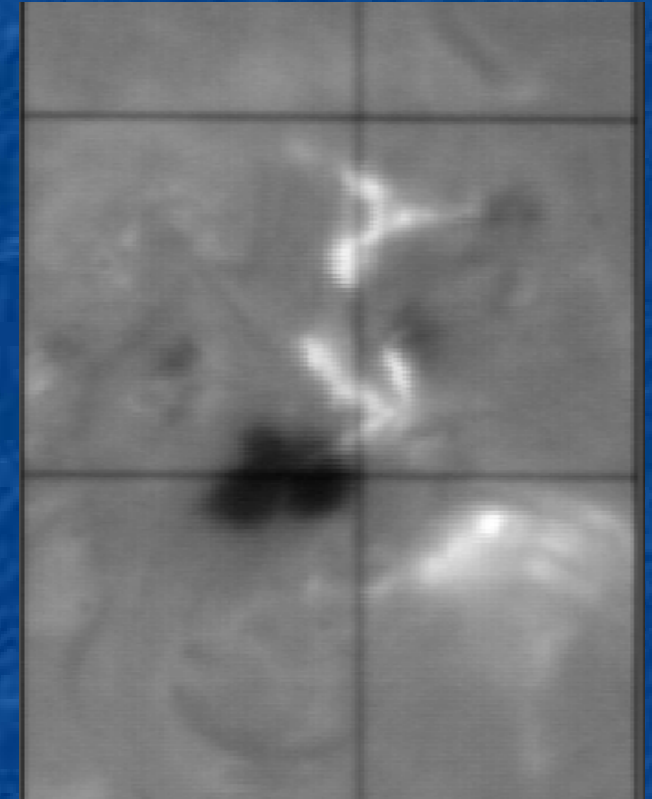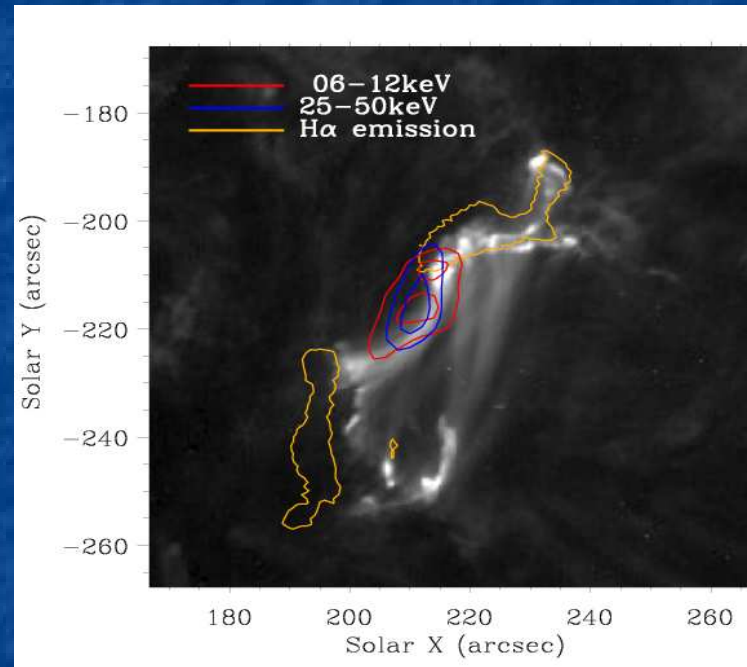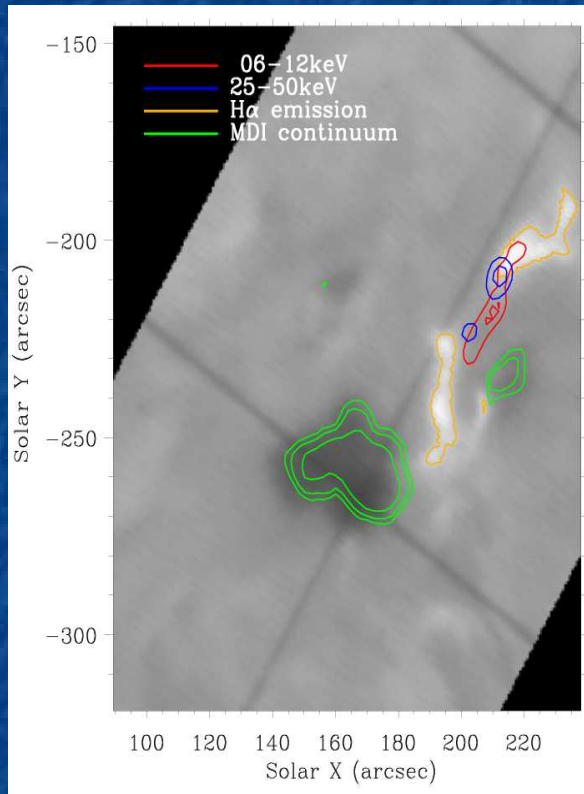
Kashapova L.K.
(Institute of Solar-Terrestrial Physics, Irkutsk)

18 August 2002 solar flare

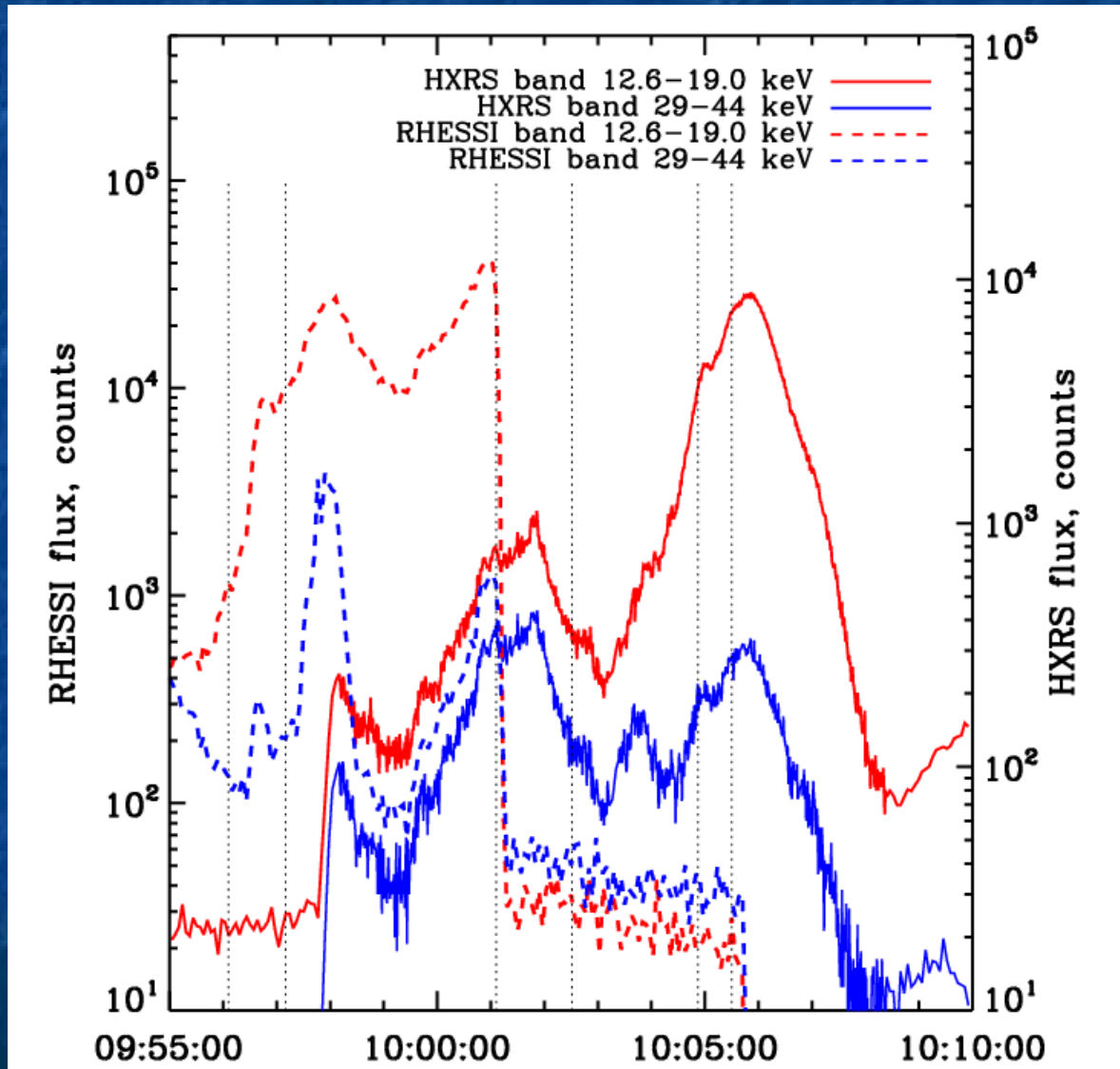

Importance 2.3 M/1F

18 August 2002 solar flare

Instrument : Czech-made Hard X-Ray Spectrometer (HXRS) (on board the U.S. Department of Energy Multispectral Thermal Imager (MTI) satellite).
In operation March 2000 - January 2003
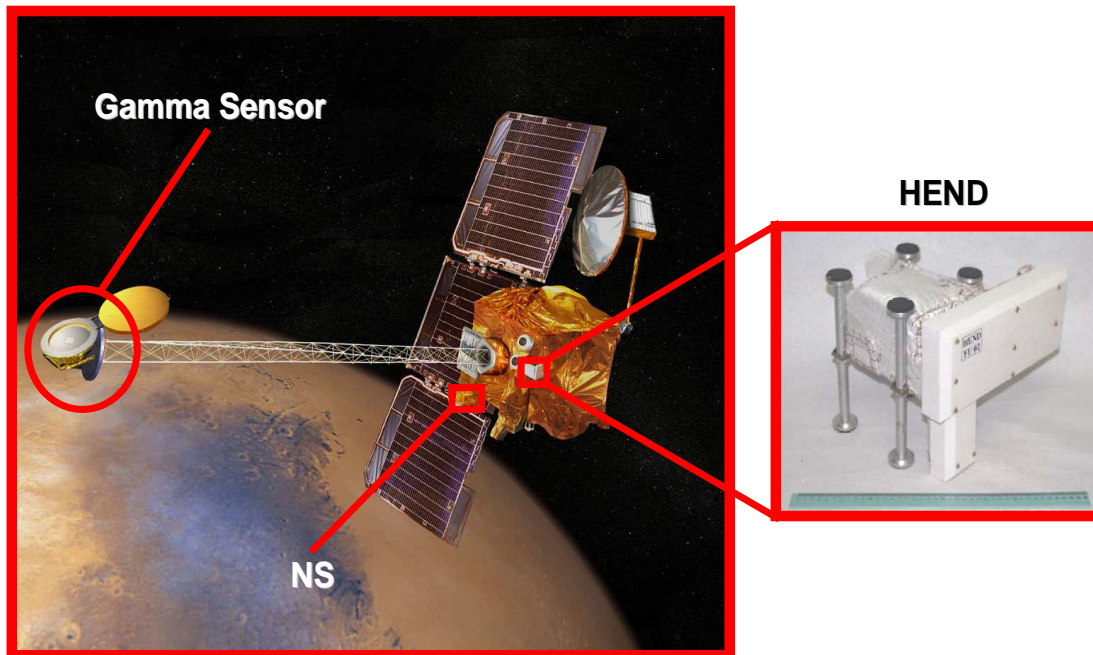Farnık, F., Garcia, H. and Karlicky, M.: Solar Physics, 201, 357–372, 2001.
http://www1.asu.cas.cz/HXRS/

18 August 2002 event

HEND (Mars-Ulysses 2001)

Instrument :
Russian-made High Energy Neutron Detector (HEND) developed in Space Research Institute RAS.

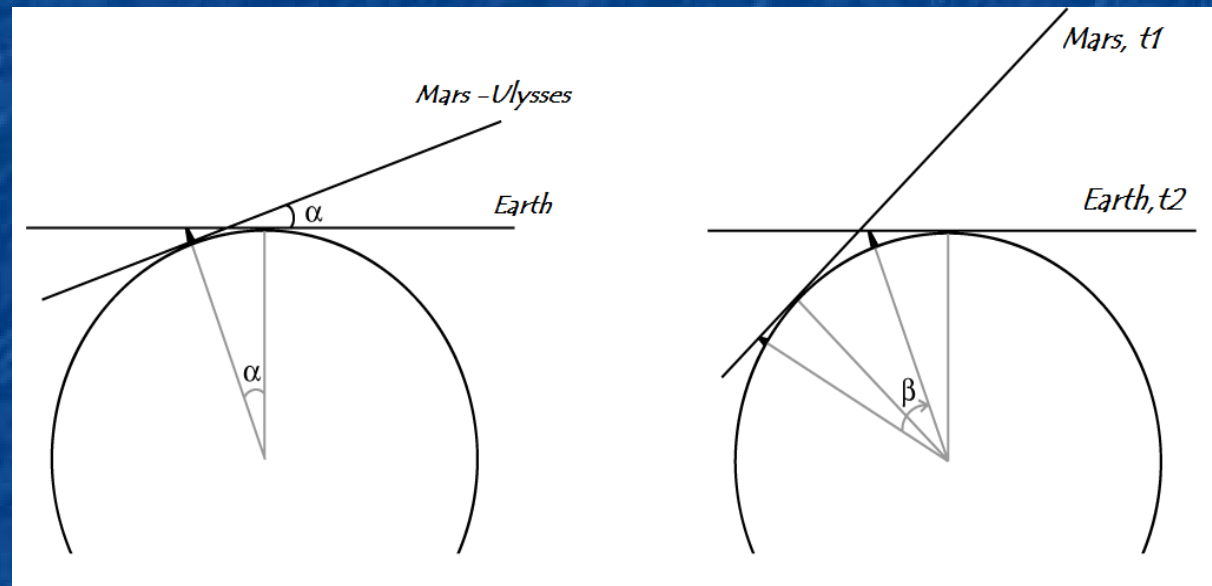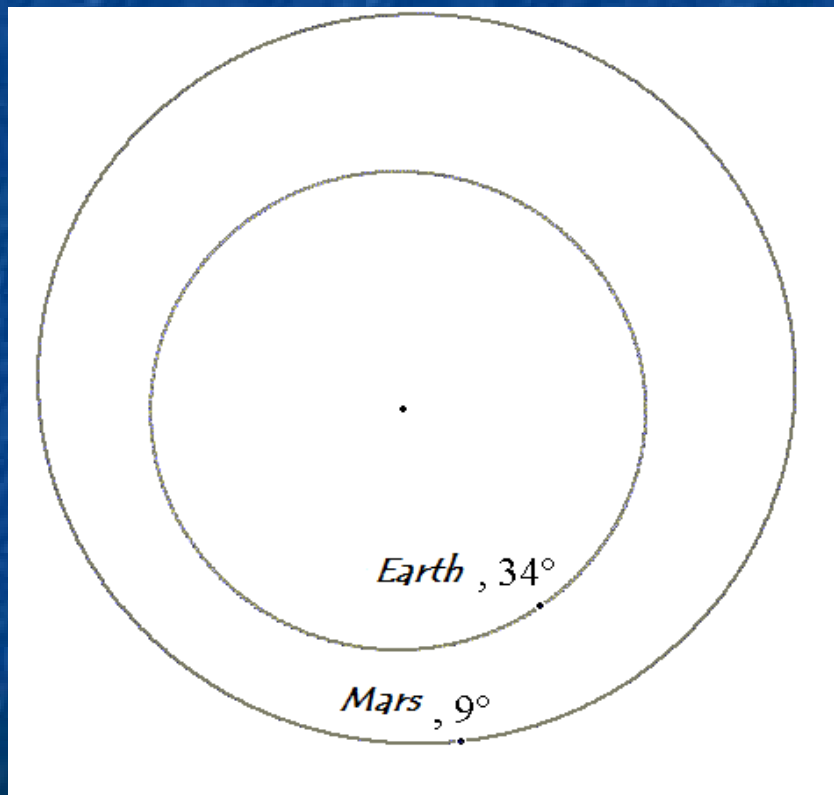**2001 Mars Odyssey**

Gamma Sensor

HEND

NS

The leader of Russian-American cooperative scientific group Dr. I. Mitrofanov

HEND (Mars-Ulysses 2001) : main characteristics

- Mars-Ulysses was launched in April 2001
- Two detectors
- Energy range: photons from 30keV to 2,5MeV
- Temporal resolution: 0.25 second (over 80keV);1 second (over 330 keV) , 16 seconds (for spectra)
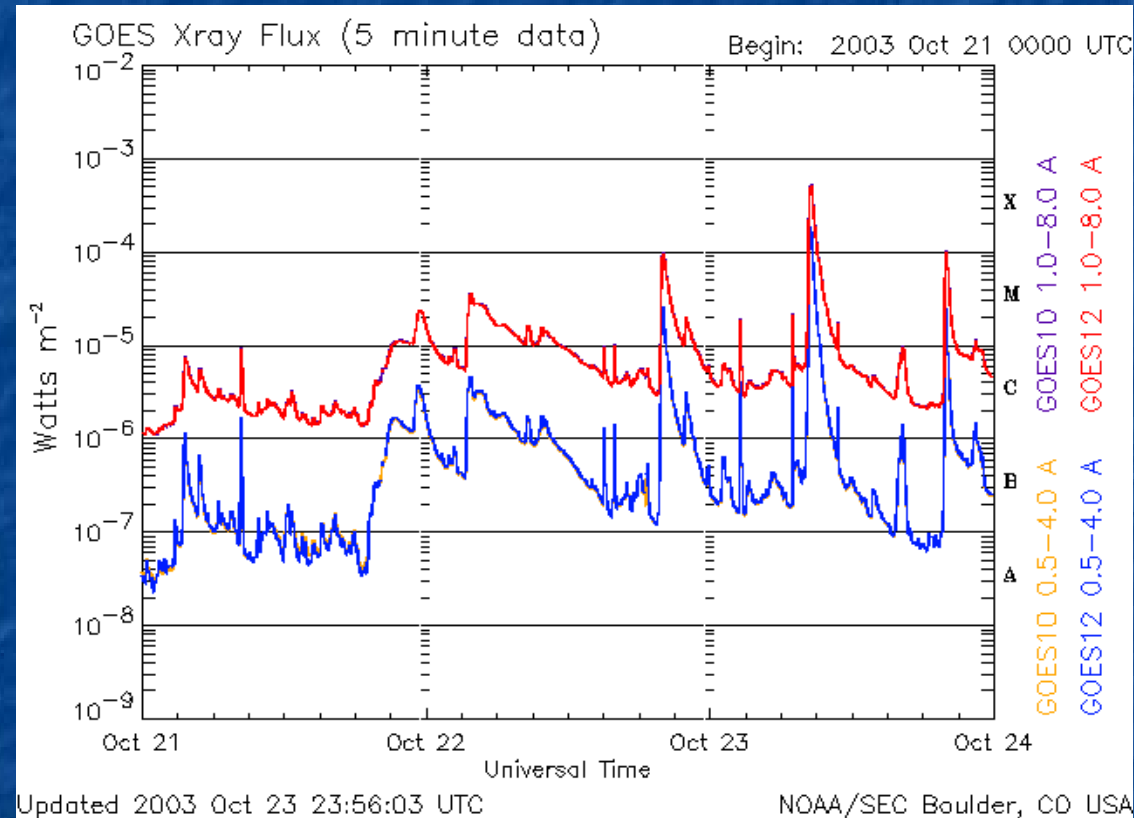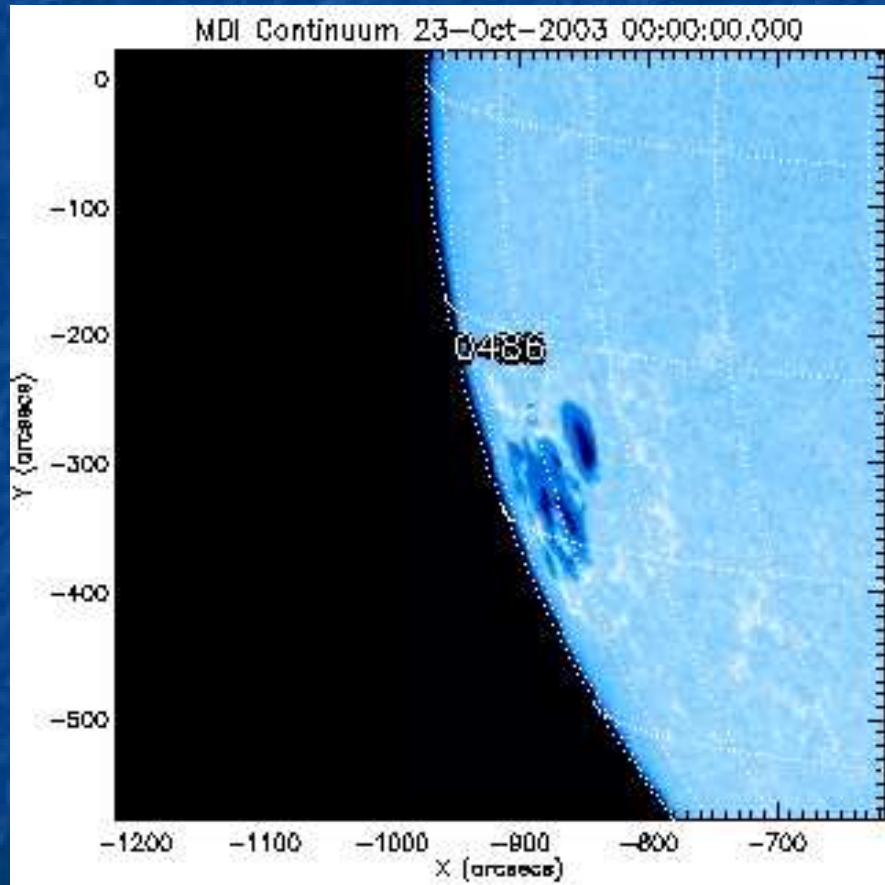- Web- adress: http://www.iki.rssi.ru/hend/index-engl.htm

HEND (Mars–Ulysses 2001) : stereo effect .
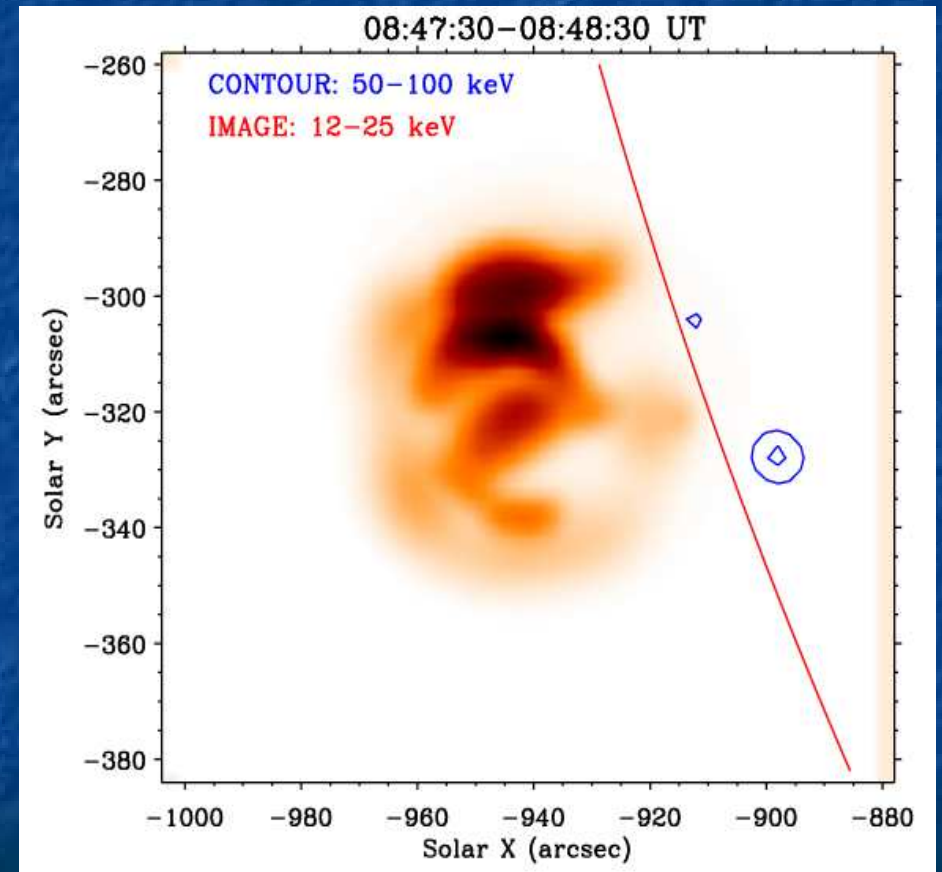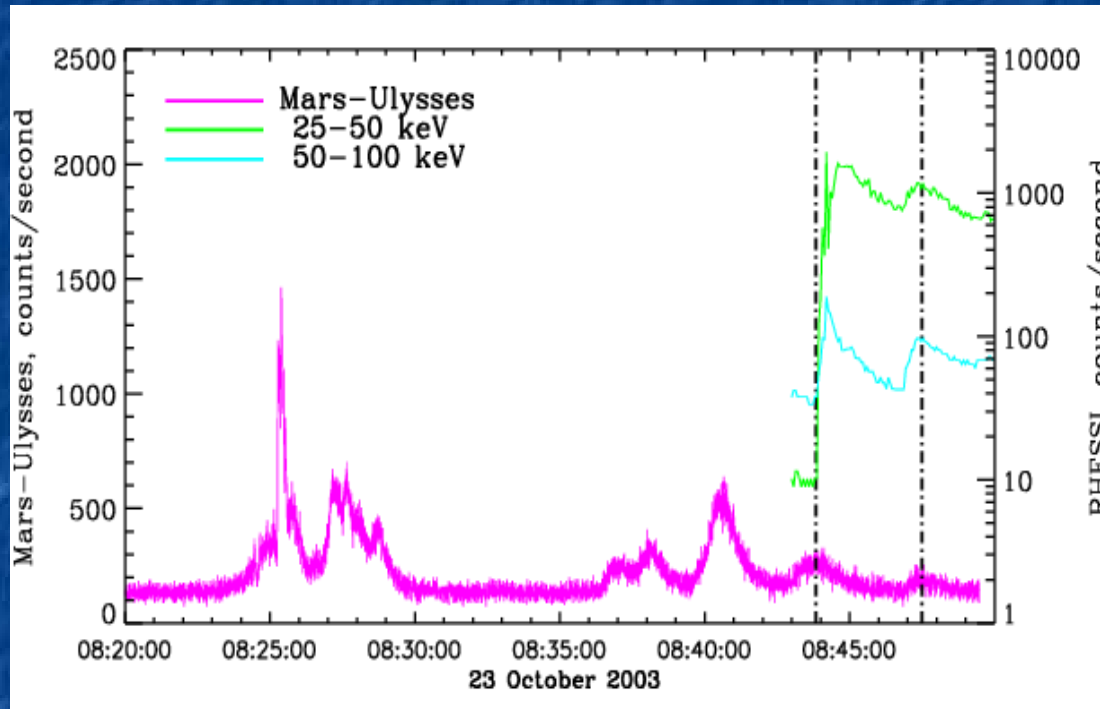
26.10.2003

See ditelas in :Livshits M.A. Chernetsky V.A.,
Mitrofanov I.G. et. all   Astronomy Reports, 2005

October 2003 solar activity
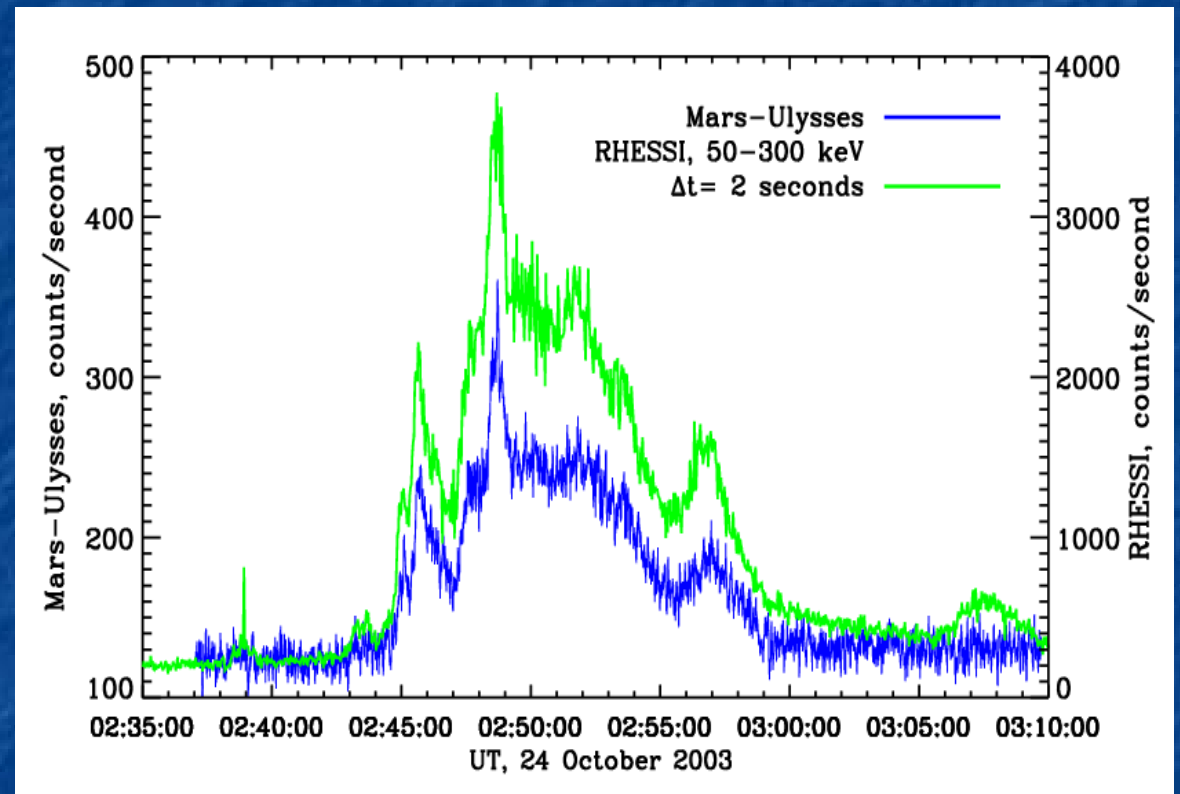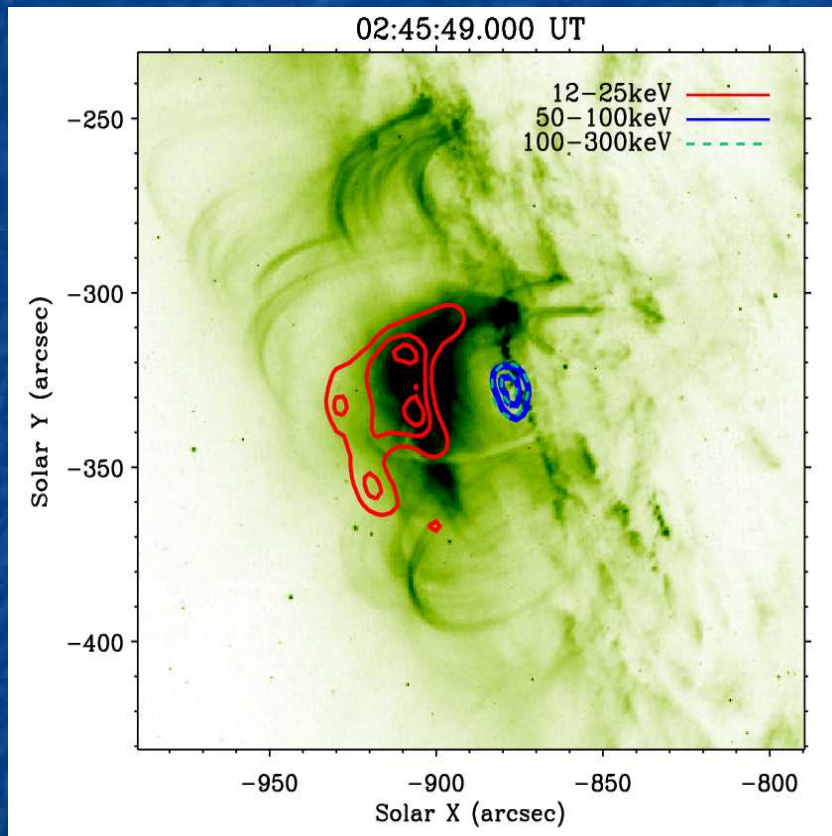
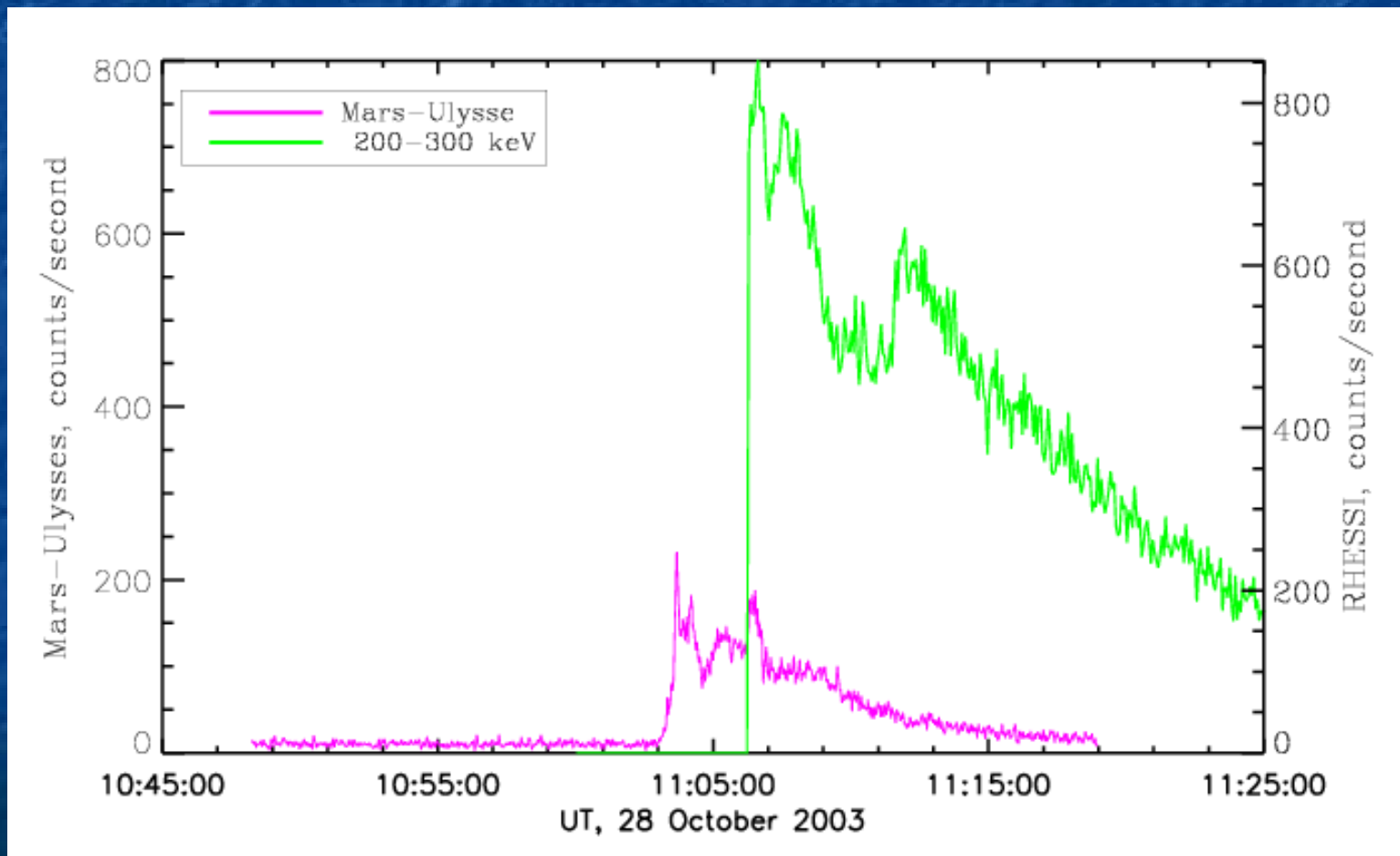# 23 October 2003 solar flare

Importance   X 5.4
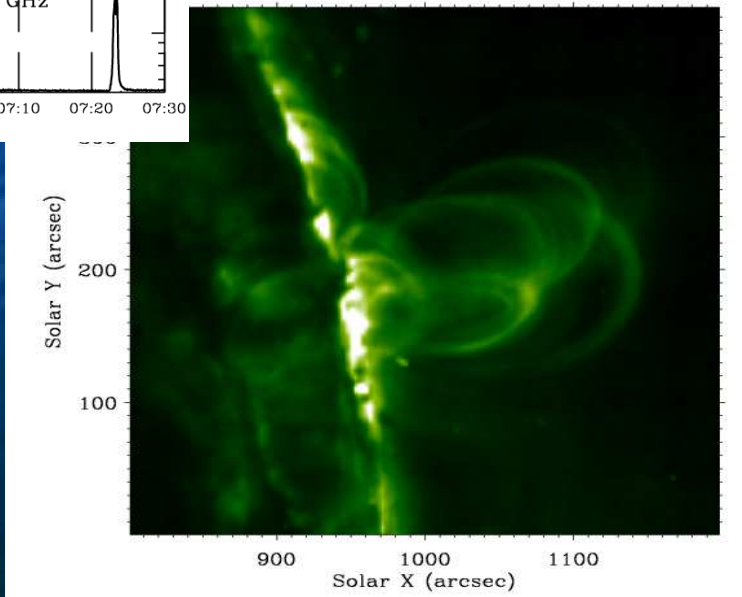Location S21/E88
Time 8:19-8:35-8:49

L.K. Kashapova, M.A. Livshits,
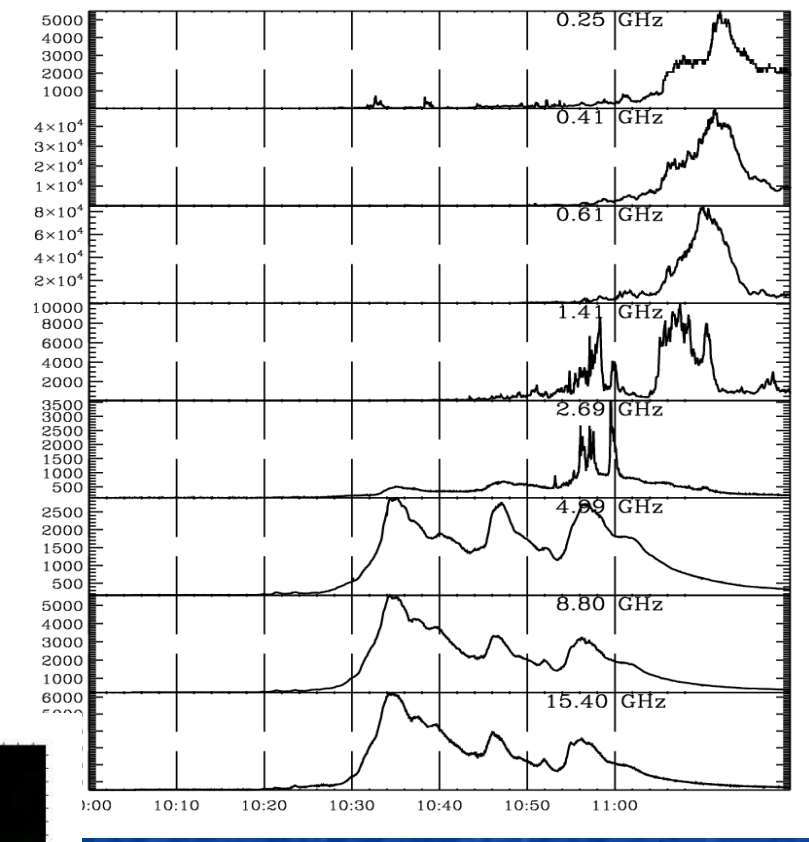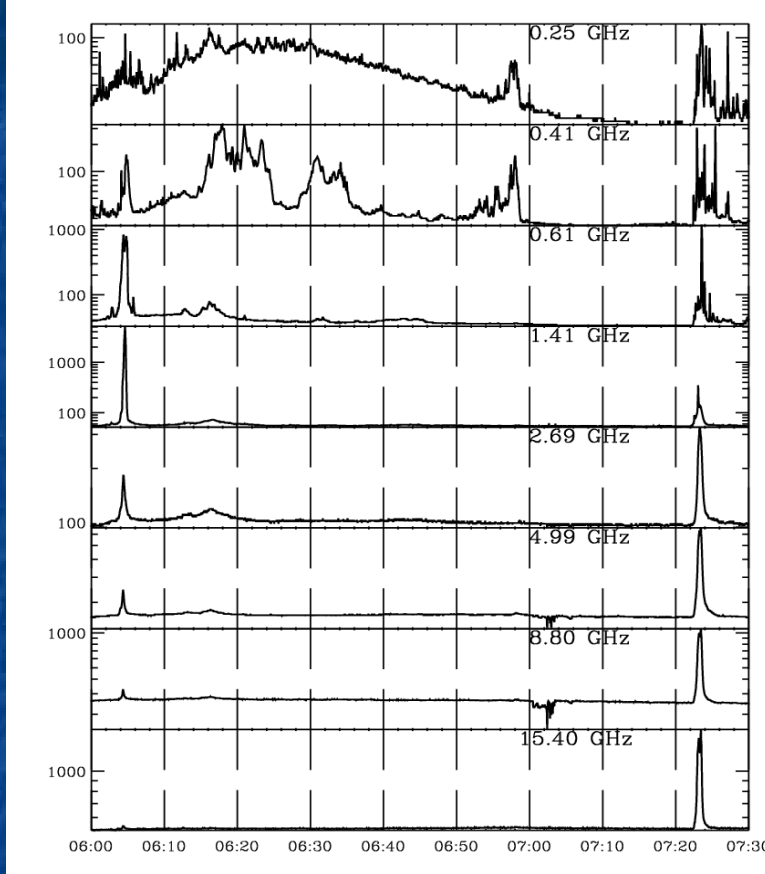*Astronomy Reports, 2008*
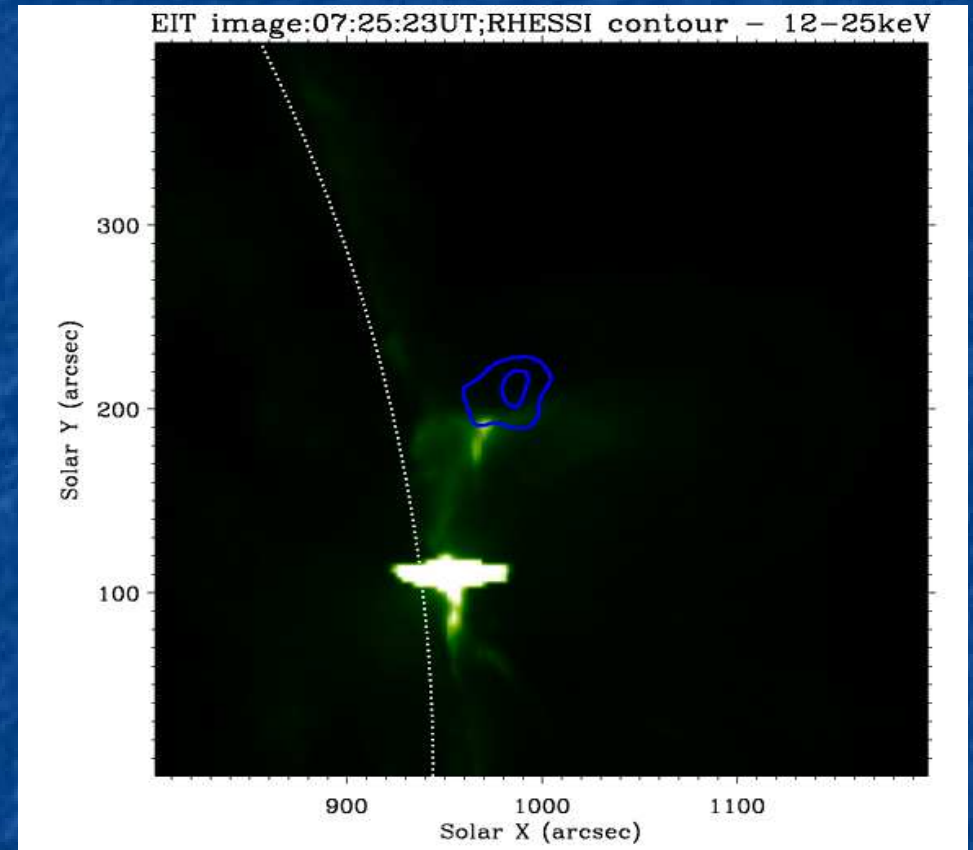
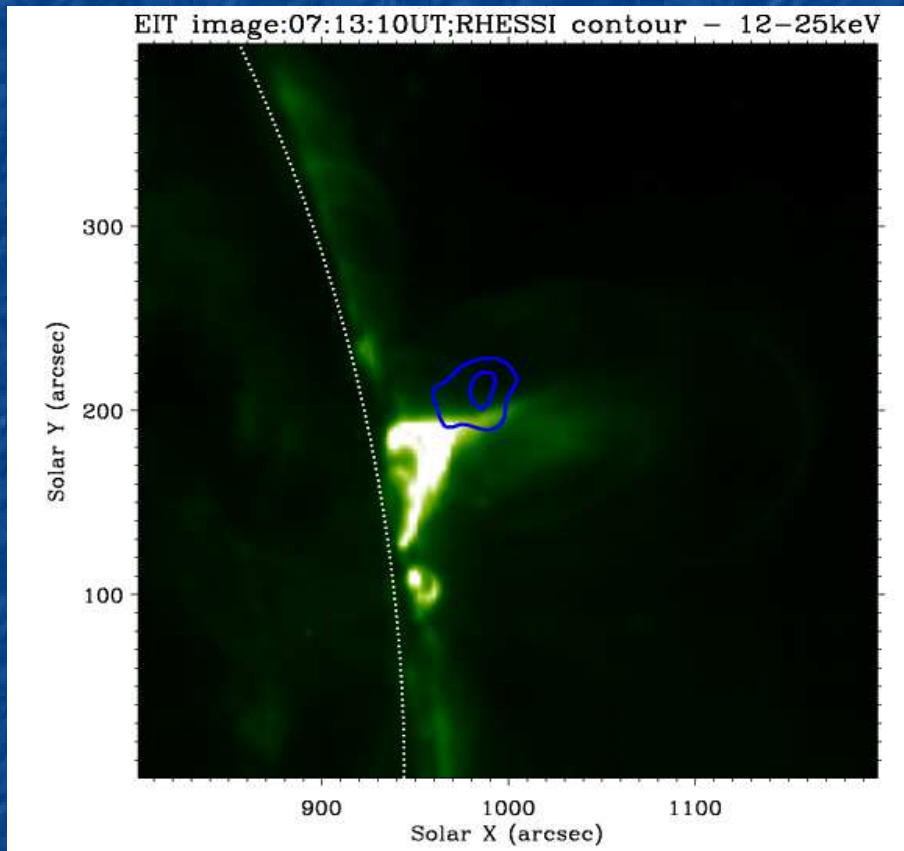# 24 October 2003 solar flare (M7.6)

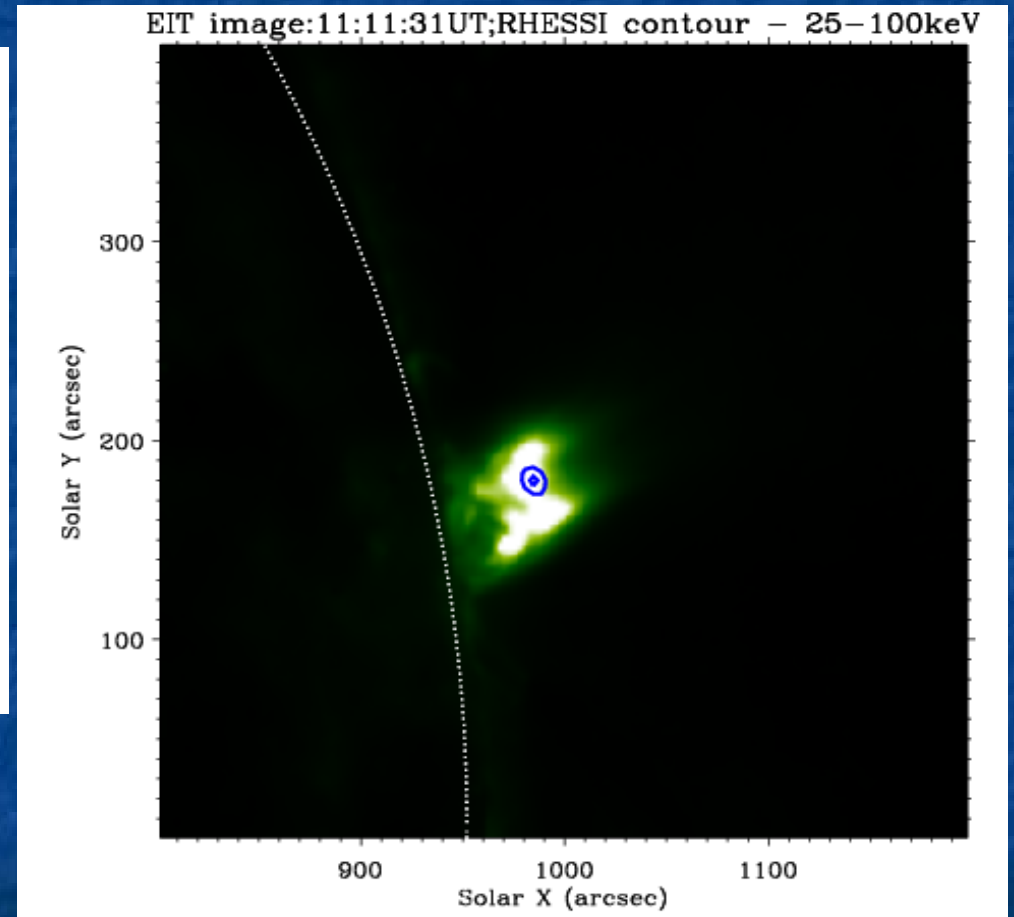# 28 October 2003 solar flare
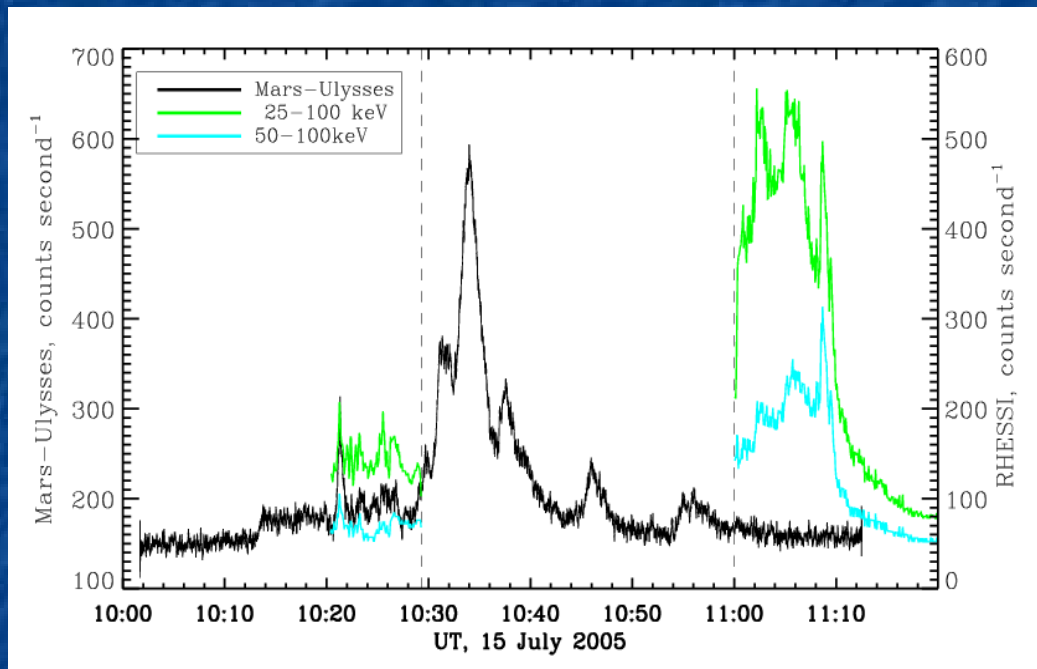
14 July 2005 solar flares (AR 10786)

14 July 2005 solar flare

V.A. Chernetsky, M.A. Livshits, L.K. Kashapova, Astronomy Reports, in preparation

14 July 2005 solar flare

EIT image:11:11:31UT;RHESSI contour – 25–100keV

- Can we get some more new or interesting information ?? - YES!!

- Problems – images and/or location (if RHESSI data are absent)