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MAXI J1659–152: new gamma source or
dead end analysis ?!

What is MAXI J1659–152 ?

- X-ray binary : consist of black hole $> 3 M_{\odot}$ and red dwarf $0,15-0,25 M_{\odot}$
- Rapidly rotating – one of the fastest ones
- Discovered by NASA's Swift space telescope on **September 25, 2010**

Coordinates:

- RA 16h 59m 01,56s
- DEC $-15^{\circ} 16' 30,50''$

located in Ophiuchus

Idea to check gamma-ray emission from this object on Fermi data

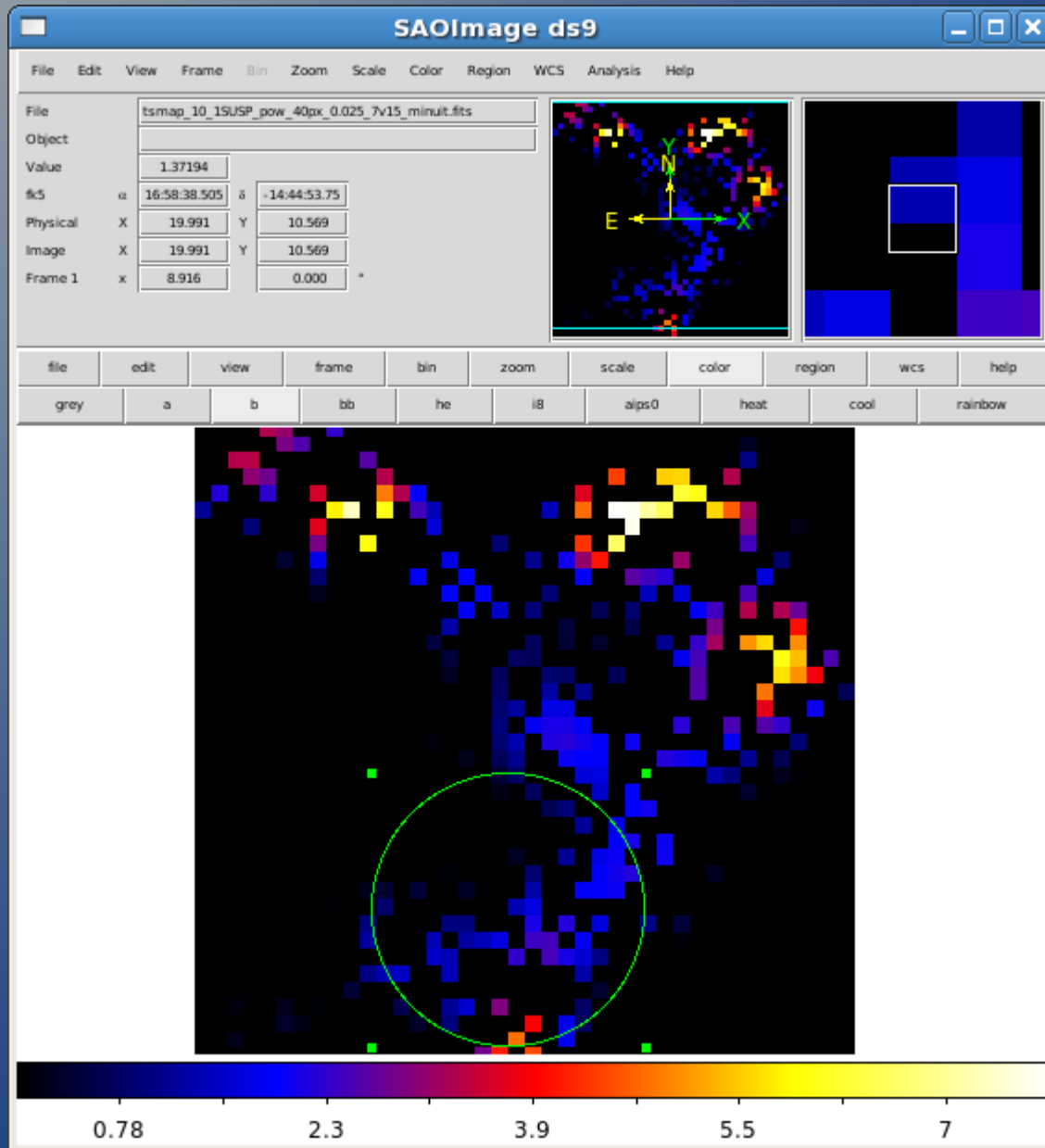
Assumption

We knew that the X-ray flare was 25.09.2010.

Let's check Fermi data from 2 periods:

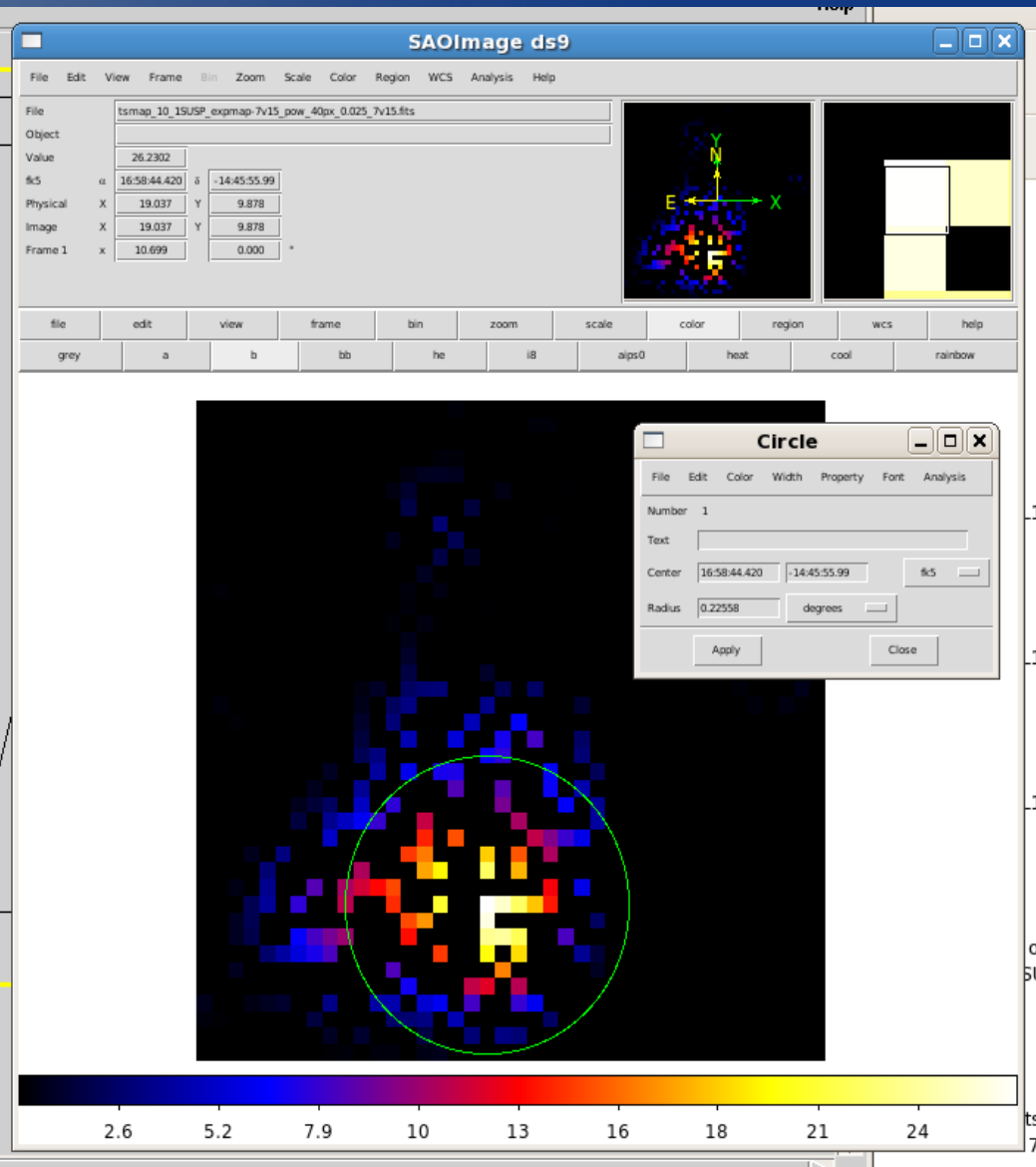
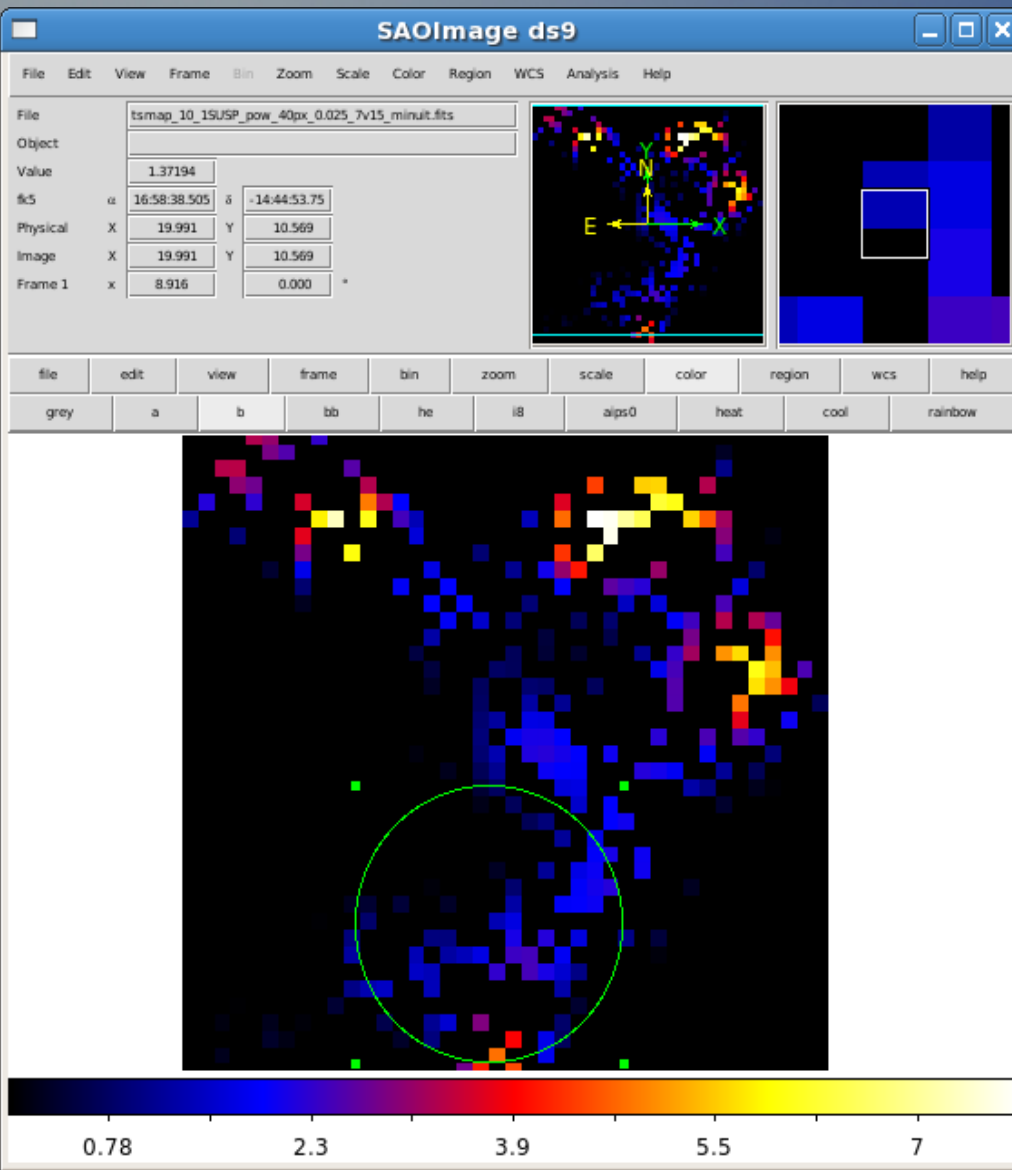
- Before 25.09.2010
- After 25.09.2010

Before 20.09.2010



area: 1x1 deg

After 20.09.2010



TS > 25 means 5 sigma, also a treshold for 2FGL catalogue

gtlike part

energy range 100 MeV to 100 GeV

final position about 0.5 deg away of initial MAXI coordinates

- 2 diffuse sources included
- 6 objects from 2FGL added manually in a radius of 5 deg

gtlike Results:

Prefactor: 0.0182787 +/- 0.0016932

Index: -1.75257 +/- 0.0206758

Scale: 100

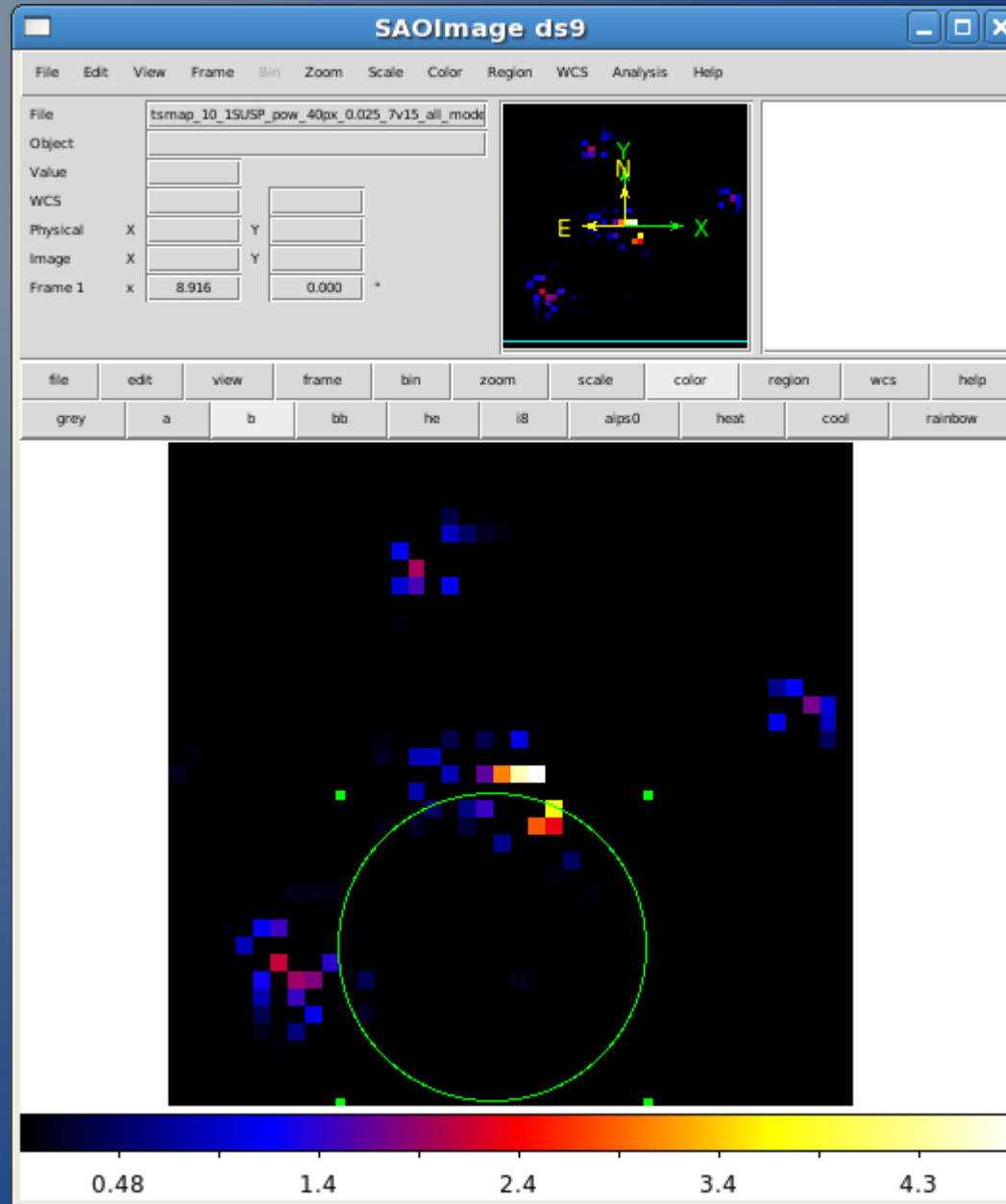
Npred: 134.314

ROI distance: 0.497683

TS value: 26.1945

Flux: $2.41597e-09 \pm 2.3782e-10$ photons/cm²/s

After modelling this object should disappear. Period > 20.09.2010



Source totally vanished on TS map - sign of proper model ?!

Conclusions

- Seems like light curves do not show any significant variability – problems with subtracting background (need to be done?) - need help on that :)
- gtfindsrc used but showed different position that best taken from TS map

Don't know what to think about MAXI...