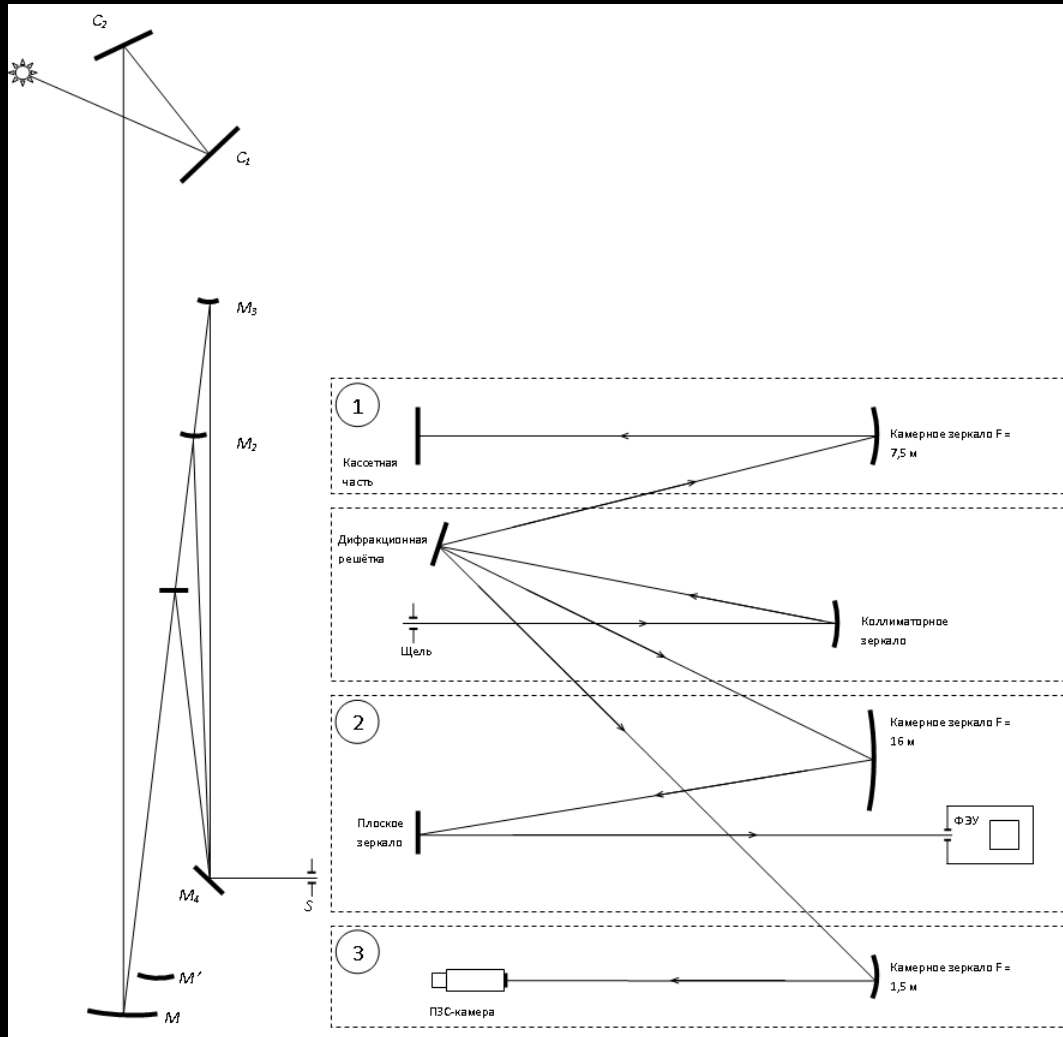


TST Spectra View – online service for solar images and spectra management

Roman K. Zhygalkin

Optical scheme of the telescope and spectrograph

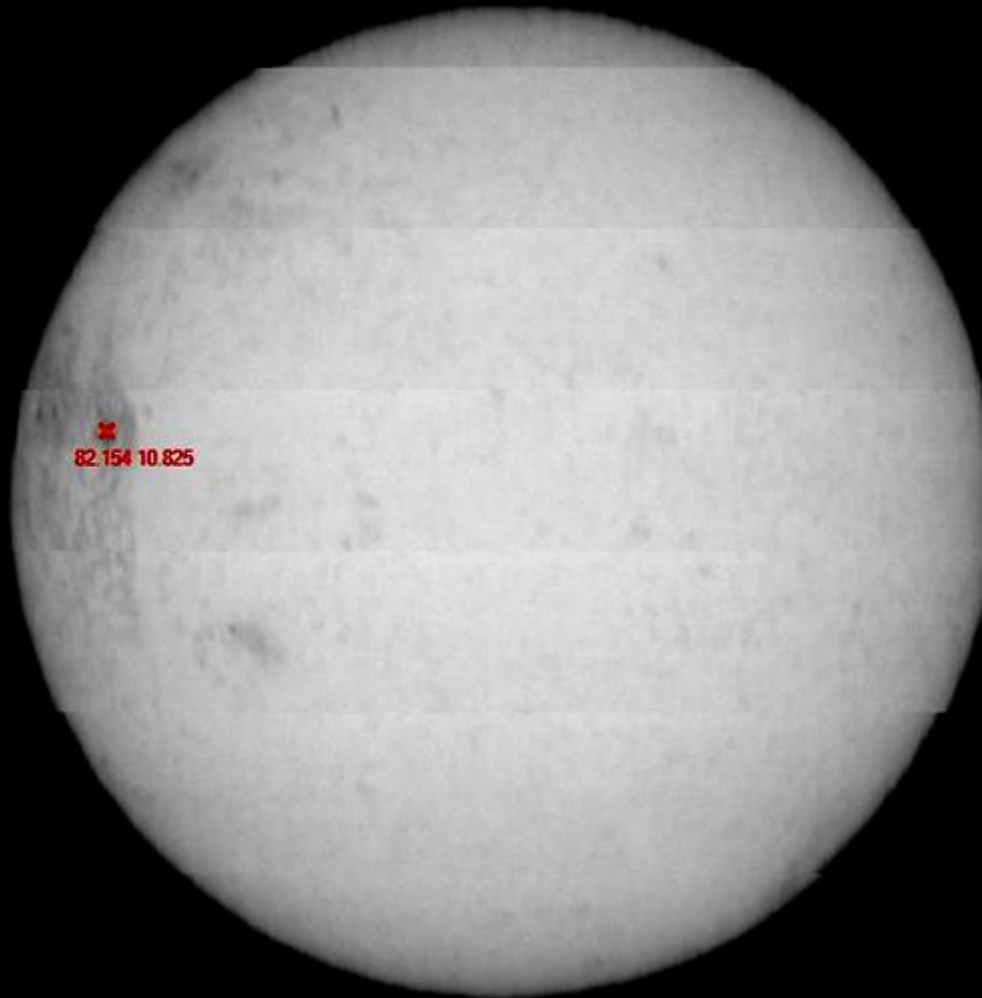


System features

- Primary mirror focal length 8 m
- Diffraction Grating 600 lines/mm
- Focal length of the collimator and camera's mirror 7.5 m and 1.5 m
- CCD VS-CTT-249-200
- Number of effective pixels 768 (H) × 584 (V)
- Elementary step of the system 1.664 arcsec
- Visible spectrum :
 - spectral window ~ 19.5 Å
 - spectral resolution 0.027 Å/pix
- NIR:
 - spectral window ~ 28 Å
 - spectral resolution 0.039 Å/pix

The solar image in the He I 10830Å line

07/16/2012 9:26:41 SpeArea:0 ix|iy:3.288|3.288



Sunspot spectra in the HeI 10830Å area

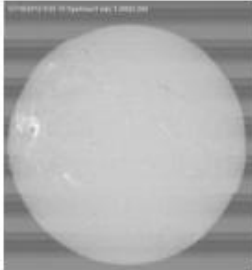

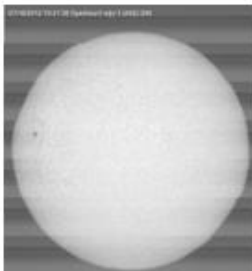



Main page TSTSpectraView

TST SPECTRA VIEW [\[Log in \]](#)

Home Observation Data Images View About Spectra View

Latest Observations

 <p>07162012 09:05:10 SpectraView v0.1.0002.000</p>	<p>Obs date (mm/dd/yyyy): 07/16/2012 Obs Begin End exposure: 9:05:10 9:05:10 Obs resolution in arc-sec per image pixel (x y): 3.288 3.288 Spectral area: 6562 Obs object: Full Disk Obs image comment: H alpha Observer: R. Zhygalkin</p>
 <p>07162012 11:13:58 SpectraView v0.1.0002.000</p>	<p>Obs date (mm/dd/yyyy): 07/16/2012 Obs Begin End exposure: 11:13:58 11:13:58 Obs resolution in arc-sec per image pixel (x y): 3.288 3.288 Spectral area: 4100 Obs object: Full Disk Obs image comment: H gamma Observer: R. Zhygalkin</p>
 <p>07162012 10:21:38 SpectraView v0.1.0002.000</p>	<p>Obs date (mm/dd/yyyy): 07/16/2012 Obs Begin End exposure: 10:21:38 10:21:38 Obs resolution in arc-sec per image pixel (x y): 3.288 3.288 Spectral area: 4861 Obs object: Full Disk Obs image comment: H beta Observer: R. Zhygalkin</p>
 <p>07162012 09:26:41 SpectraView v0.1.0002.000</p>	<p>Obs date (mm/dd/yyyy): 07/16/2012 Obs Begin End exposure: 9:26:41 9:26:41</p>

Observations search page

TST SPECTRA VIEW [[Log in](#)]

Home Observation Data Images View About Spectra View

Search Data (mm/dd/yyyy)

From: To:

Select	ID	ObsDate	Spectral area	ObsObject	Obs Resol (arc-sec/pix)	Obs begin/end	ImageSize (pix)
<input type="checkbox"/>	30	06/21/2012 00:00:00	10830	Full Disk	4.932 4.932	7:38:01 7:38:01	405 x 441
<input type="checkbox"/>	31	07/16/2012 00:00:00	6562	Full Disk	3.288 3.288	9:05:10 9:05:10	609 x 658
<input type="checkbox"/>	32	07/16/2012 00:00:00	4100	Full Disk	3.288 3.288	11:13:58 11:13:58	609 x 658
<input type="checkbox"/>	33	07/16/2012 00:00:00	4861	Full Disk	3.288 3.288	10:21:38 10:21:38	609 x 658
<input type="checkbox"/>	34	07/16/2012 00:00:00	10830	Full Disk	3.288 3.288	9:26:41 9:26:41	609 x 658
<input type="checkbox"/>	36	07/12/2012 00:00:00	10830	Full Disk	9.864 9.864	10:34:36 10:34:36	203 x 217
<input type="checkbox"/>	37	07/12/2012 00:00:00	10830	Full Disk	6.576 6.576	10:44:31 10:44:31	303 x 329
<input type="checkbox"/>	38	06/26/2012 00:00:00	6562	Full Disk	3.288 3.288	7:53:23 7:53:23	608 x 658

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TST Spectra View service

3

Image Tools

83.36865234375 305.95814514160156

Hide Grid

Hide Marks

Single Profile

Profiles for All by LB

Get Single Frame

Clear SpePreview

Clear ImagePreview

Screen Stretch:

Update Image

07/16/2012 9:26:41 SpeArea 0 ixjy:3.288j3.288

2

Spectra preview

07162012_6562-83_305.txt

07162012_4100-83_305.txt

07162012_4861-83_305.txt

07162012_10830-83_305.txt

83.36865234375 305.95814514160156

4

Images preview

Select	ImageFileName	Coordinates	DownloadLink	SpecviewLink	VOSpectLink
5	F:\TST\Spectra\ObservationData\SpeData\07162012_10830.image	83.36865234375 305.95814514160156	Download	To Specview	To VOSpec
<input type="checkbox"/>	F:\TST\Spectra\ObservationData\SpeData\07162012_4861.image	83.36865234375 305.95814514160156	Download	To Specview	To VOSpec
<input type="checkbox"/>	F:\TST\Spectra\ObservationData\SpeData\07162012_4100.image	83.36865234375 305.95814514160156	Download	To Specview	To VOSpec
<input type="checkbox"/>	F:\TST\Spectra\ObservationData\SpeData\07162012_6562.image	83.36865234375 305.95814514160156	Download	To Specview	To VOSpec

Search Data (mm/dd/yyyy)

From: 05/20/2011

To: 01/27/2013

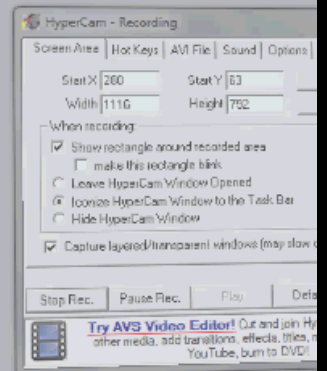
[Search Data](#)

[Download Selected Images](#)

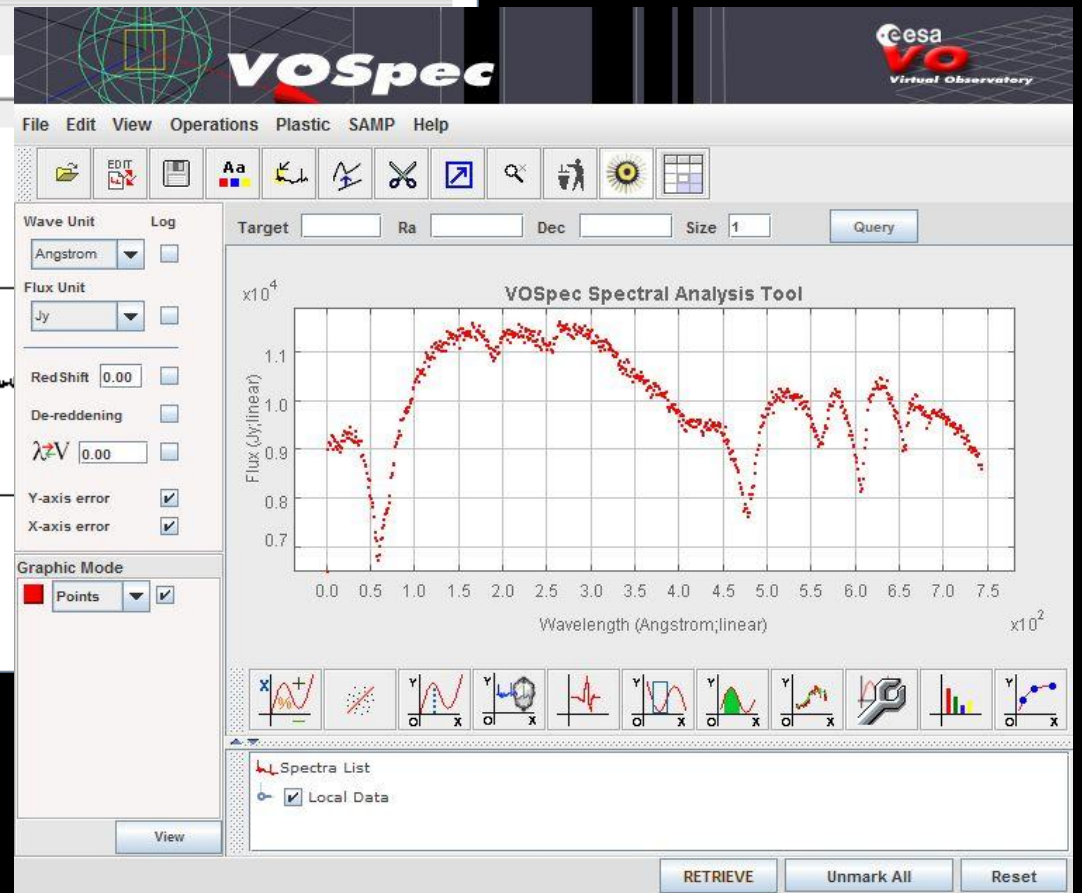
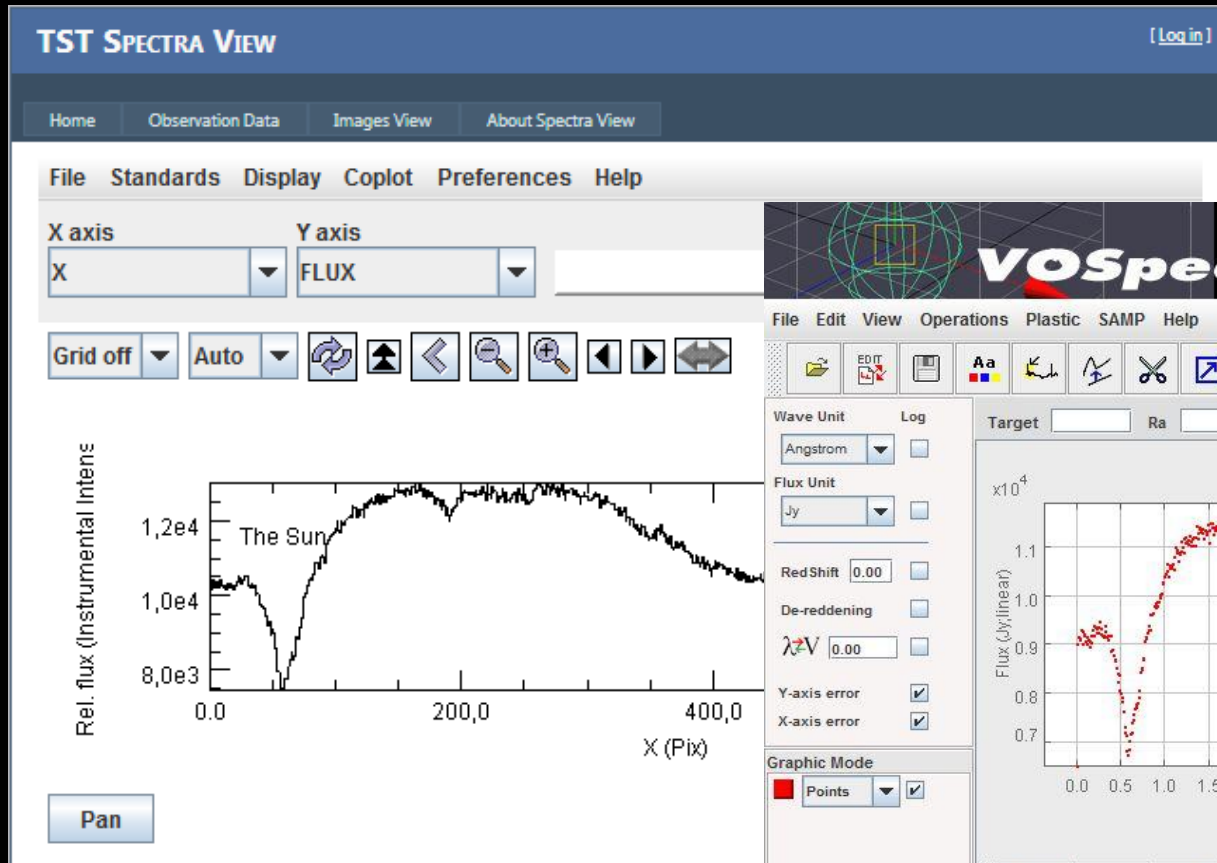
[View Images](#)

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Redirecting data into the other applications (Specview, VOSpec)



Further development of the service

- Using another solar images in our service
- Creating a time series of various parameters for the selected solar formations using heliographic coordinates
- Online construction of the solar images (distribution of radial velocities, equivalent widths, etc.)

Thank you for your
attention!