STATUS OF VIDOJEVICA 20 YEARS AFTER ITS FOUNDING

Oliver Vince and <u>Miljana D. Jovanović</u> Astronomical Observatory Belgrade, Volgina 7 ovince@aob.rs

Content

- Brief history of ASV
- Current status
- Future plans



- 2005-2010. Dormitory and 60cm pavilion
- 2010. 60cm telescope install.
- 2010-2015. BELISSIMA FP7 EU reg. proj.
- 2015. Temporary pavilion (very simple roll-roof pavilion)
- 2016. 1.4m telescope in temp. pavilion
- 2017-2018. 1.4m pavilion
- 2018. Transfer 1.4m telescope
- 2019. Transfer of the 60cm telescope
- 2020. 40cm pavilion
- 2021. solar panels and wind turbines

One-slide history od ASV



1.4m telescope - Milanković

- 1. Provided via BELLISIMA FP7 EU regional project
- 2. Astro Systeme Austria company (ASA)
- 3. AltAz mount
- 4. LOMO mirrors, Sankt Peterburg, Russia
- 5. DDM mount => fast, silent, precise, less friction ...
- 6. TCS in the fork => compact, resembles to plug-in device
- 7. 4 ports/stations available; 2 ports with image-derotator in Operation.

1.4m telescope - Milanković



Right Nasmyth port

- Also derotator
- No additional optics
- Inst. Selector w. 4 ports
- Andor ikon897 EMCCD
- SBIG stxl-6303 CCD
- Lucky imaging etc.



Left Nasmyth port

- Derotator
- Focal reducer
- Andor ikonL CCD
- Andor 9 position FW
- B,V,R,I,L,Ha,HaCont, SII
- FOV=14'x14', ps=0.39"
- Phot./astrom./imaging





1.4m telescope – Milanković (future plans)

- 1. Provide more instruments and make observ. more versatile
 - a) Imaging-Spectro-Polarimeter i.e. '3 in 1'
 - b) Spectro-polarimeter I.e '2 in 1'
 - c) Spectrograf / polarimeter
- 2. Telescope robotization

- enable observation in queue-scheduling mode taking in account obs. conditions (weather, Moon, altitude etc.).

60cm telescope – Nedeljković

- 1. Astro Systeme Austria company (ASA)
- 2. EQ mount (from recently DDM200 from ASA corp.)
- 3. LOMO mirrors
- FLI PL230 CCD camera: 2048x2048; 139 μm pixel (temporarly equiped with SBIG STXL-6303 camera: 3072 x 2048, 9 μm pixels)
- 5. Optec FW + BVRIL broad band filters
- 6. FOV(FLI)=15'x15x, ps=0.5" FOV(SBIG)=16'x11x, ps=0.31"
- 7. 0.5x focal red. available
- 8. Used for photometry/astrometry/imaging



60cm telescope – Nedeljković (future plans)

- To calibrate the telescope for absolute photometry
- distant future plan: to return the telescope to the old 60cm pavilion (requires replacement of the old custom-made dome).



Animations / Movies

40cm telescope – Meade

Telescope

- Meade 40cm provided in 2004
- Schmidt-Cass. Optical system
- It is setup as an EQ system
- EQ wedge and mount from Gemini Telescope Design corp. (in memoriam Dán András, Hungary)



Instruments

- Now, Starlight Triux CCD
- Later SBIG STXL-6303 with Maxi Starlight FW and **BVRI+ugri filters**

Pavilion

- ScopeDome company (Poland)
- 3m in diameter
- full automated version.

40cm telescope – Meade (future plans)

- to finish equipping the telescope
- To bring it under the regular observation program











Manpower

Huge accumulation of equipment/infrastruct.

- dormitory
- 4 pavilions
- 3 telescopes
- 3 worm rooms
- 5 CCD cameras + 4 FWs
- 5 instruments (AllSky,
- Meteostation etc.)
- 5+ personal computers
- internet
- etc.



Manpower (future plans)

We have to:

- Increase the number of telescope operators working in shifts => extend the current 15 observing nights/mounts
- Engage observatory maintenance staff (at least 3 people)
 - systematic maintenance of telescopes and instruments
 - mechanical maintenance and instrumental adaptation
 - IT and web administrator and public relations manager

Telescope Time Allocation

🔏 vidojevica.aob.rs/index.php?option=com_content&view=article&id=31&Itemid=149

… ⊠ ☆

Reset

Font size Bigger

III\ 🗉

Smaller



"first light" images from 1.4m telescope at ASV

Home

Telescopes

CCD cameras

Instruments

Weather Forecast

Useful Links

News

Calendar of Activities

Telescope Time Allocation

0

Contact

Telescope Time Allocation

Time allocation for the telescopes at the Astronomical station Vidojevica is possible. For successful application, we strongly advice to read the <u>Rule-book</u> first which contains all relevant information regarding time allocation. Application forms can be downloaded <u>here</u>. Characteristics of the telescopes and all the available instruments can be read <u>here</u>. Example of applications in Serbian and English can be found <u>here</u>.

News and Events.

The 60cm telescope is available for observations again with FLI PL230 CCD camera, filters set: B, V, R, I and L. The filed of view is 17.7 x 17.8 arcmin. Pixel size is 15.0 µm x 15.0 µm.

Call for proposals for the telescopes time allocation is open from 1st of July to 31th of October 2020.

Current time: 9 Oct 2020 -- 08:51

Time of measurement: 9 Oct 2020 -- 08:50

Temperature = 4.8 °C Pressure = 887.7 mb Humidity = 100% Dew point = 4.8 °C

Wind speed = 1.3 m/s Wind direction = W Highest wind speed = 4.5 m/s

Observation projects

Some current statistics:

- 20+ observational projects per semester
- Good trend for obs. projects to participate in large international observation projects (WEBT, Gaia, LSST, ect.)
- There is an increasing number of ideas about using spectrometer/polarimeter
- 100+ publications in different papers since 2010.

Short summary

- we are close to Vidojevica's 20th birthday
- there is still a lot to do
- there is still a lot to improve

Thank you for attention