

# Planetum Prague

## Štefánik observatory

*Facilities, activities and observations*

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# Planetum Prague

- Planetarium
- 2 observatories in Prague
- Cultural municipal institution of capital city of Prague
- Popularisation of astronomy and science
- Since 2018 new identity



p l a n e t u m

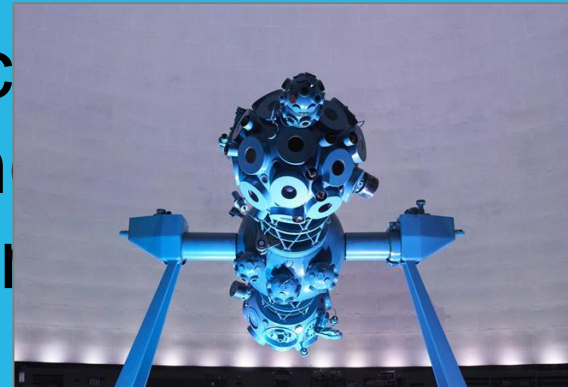
# Planetarium - history



- Opened 1960, dome 23 meters
- 2 optomechanical planetaria Carl Zeiss (1960, 1991)



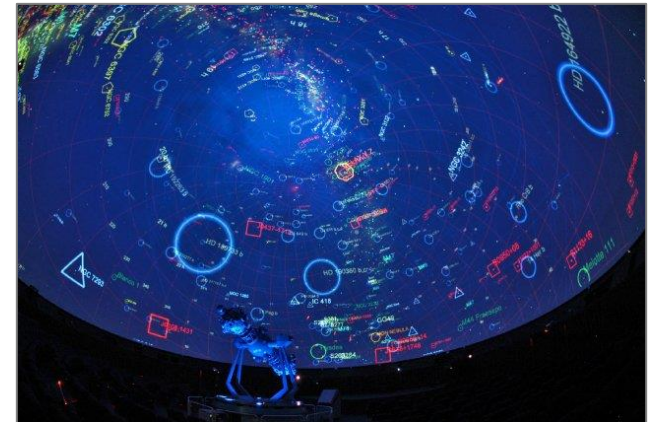
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# Planetarium - activities

- Popularisation in the broadest sense
- Full dome digital projections



# Planetarium – conferences

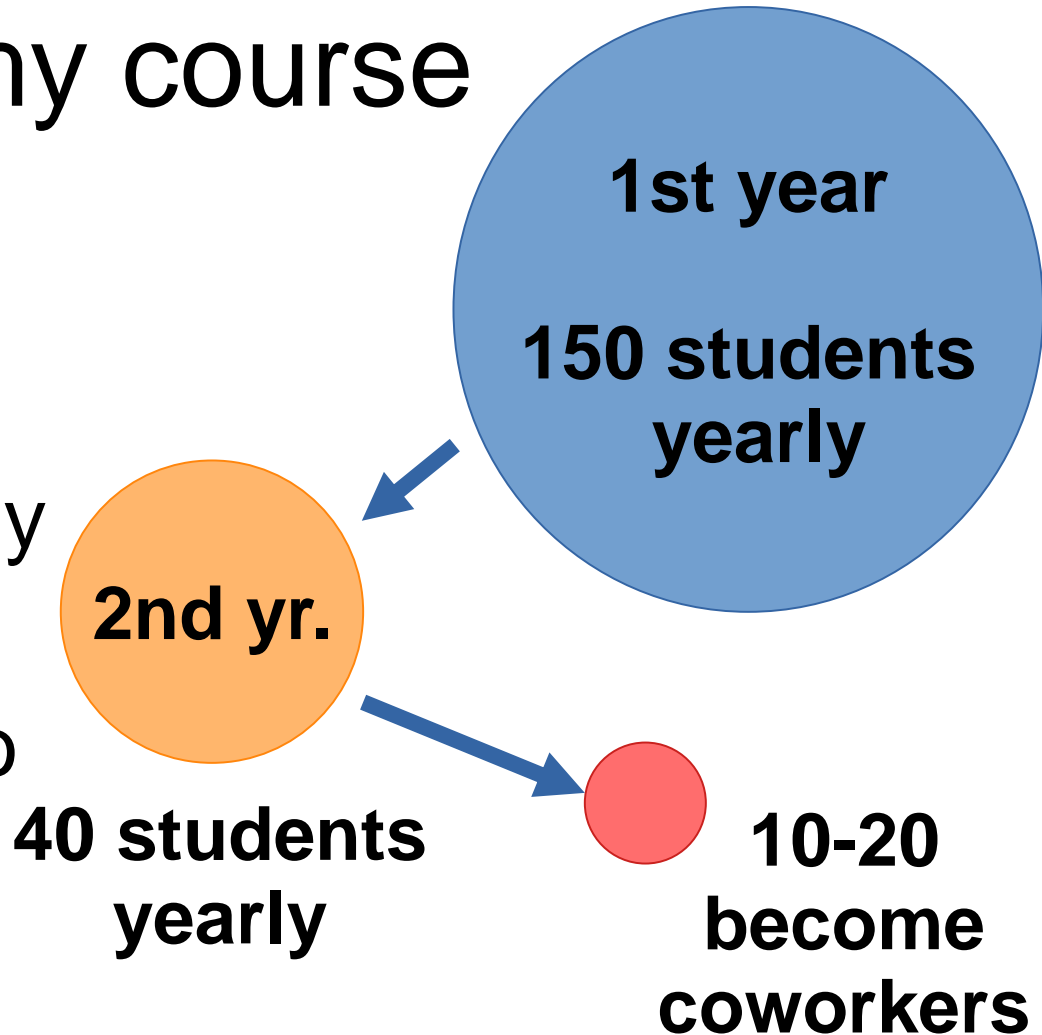
- Cosmorama main hall  
230 persons
- Starvid cinema hall  
94 persons





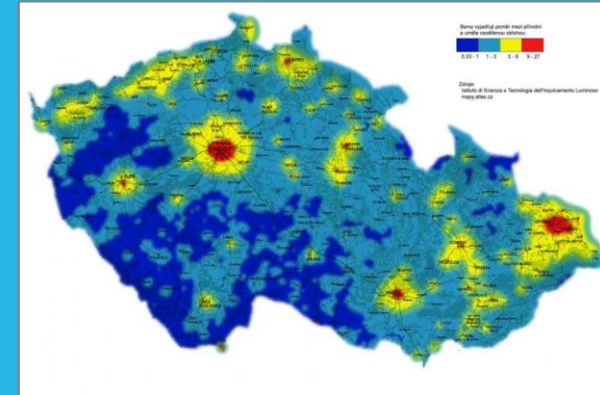
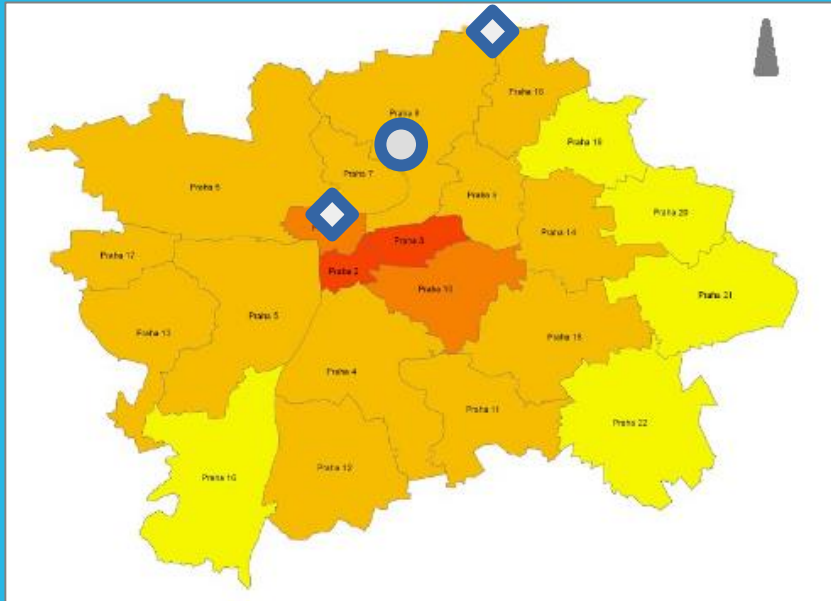
# Astronomy course

- For public - adults and students
- Provides deeper knowledge of astronomy and astrophysics
- Encourages students to cooperate with observatories and astronomical society



# Prague observatories

- Štefanik observatory in the very center of Prague
- Ďablice observatory – small observatory on the northern outskirts



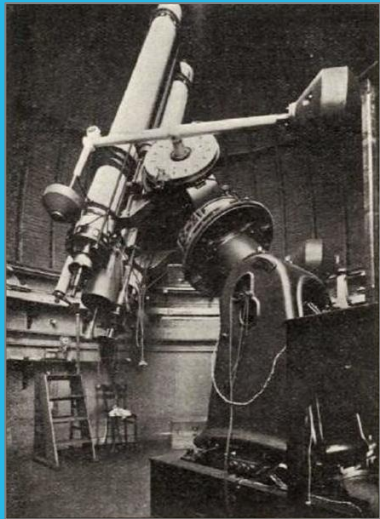
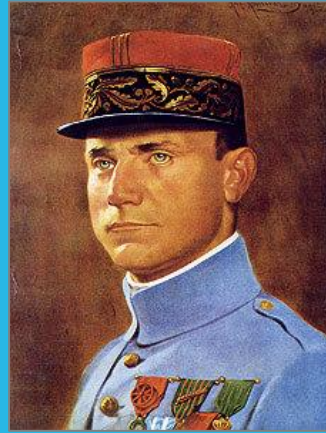
# Řáblice observatory

- Build 1955-1958; open for public observations and occasional lectures and movie projections
- Coudé 40 cm reflector in eastern dome.
- 19 cm refractor and 30 cm newtonian in western dome
- Instruments used for visual observations and occasional asteroid transit observations





# Štefánik observatory - history



- Build by Czech Astronomical society in 1927, opened 1928
- Damaged at the end of WW II
- Last reconstruction 1976
- Precious double Zeiss Astrograph (1905) in the main dome. Installed 1928.

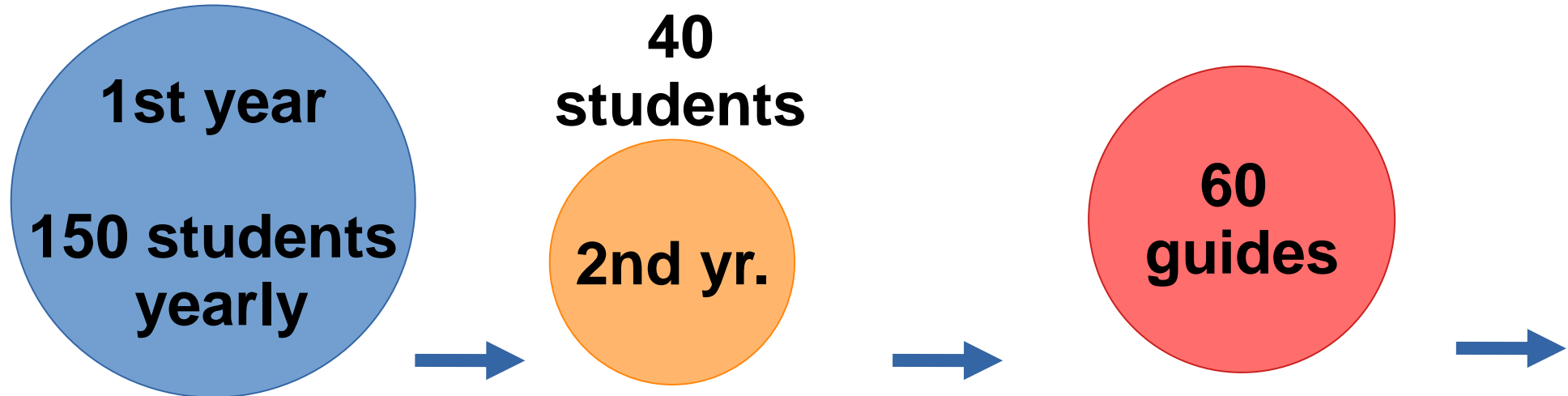
# Štefanik observatory - activities

- **Open all days** for school classes and public
- **30 000** individual visitors in the year 2018
- Courses for children, youth and adults
- Mobile programme with observations and lectures



# Štefanik observatory – people

- Regular staff of 11 people – astronomers, technicians
- Irregular staff – **60 guides**
- Guides are graduates of astronomical course
- Approx. 20 people each year, most stay for 2 years only



# Štefanik observatory - instruments

- 2 domes accesible for public – westerna and main dome
- 1 dome with semi proffesional photometric system
- 1 observation lodge accesible on special occasions



# Štefanik observatory - instruments

- **MARK system:**

installed 2000, originally Meade mount and camera  
intended to be fully automatic „robotic“ system  
rebuild 2016

**Meade SCT 16“ + CCD SBIG ST10 + BVRI + Paramount**

- **Observation lodge – various instruments**

Zeiss equatorial mount (cca 1970)  
accessible to all coworkers with no restrictions

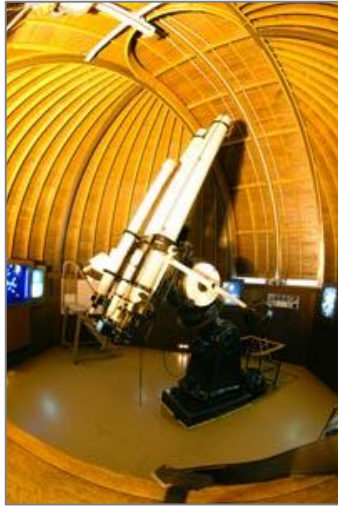
**CZ REF 200/1370 + DSLR / CCD SBIG ST7**

**Bresser NWT 2200/1000 + DSLR/ CMOS ASI1600 + BVRI**

**Lichtenknacker SCT 200/2400 + CCD SBIG ST7 (testing)**



# Štefanik observatory - instruments



# Štefanik observatory – CCD section

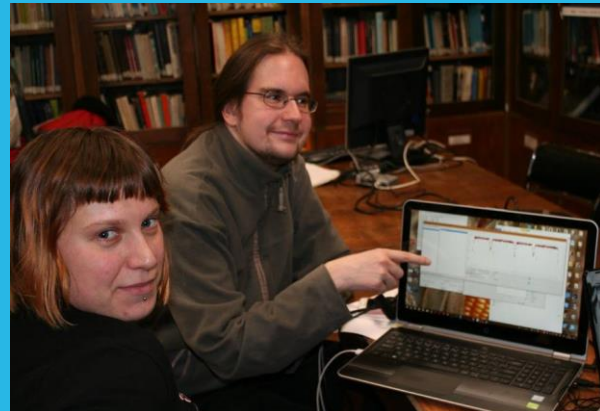
- popularize ccd observations
- improve acces to the instruments
- meaningful observation programme
- lectures and workshops

**Tot. 200**

**60**

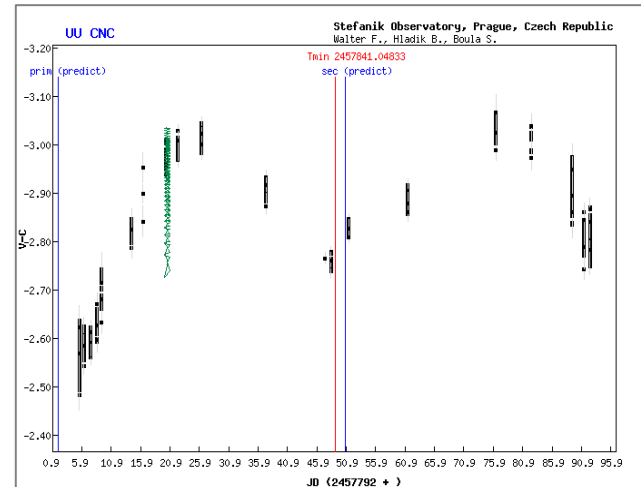
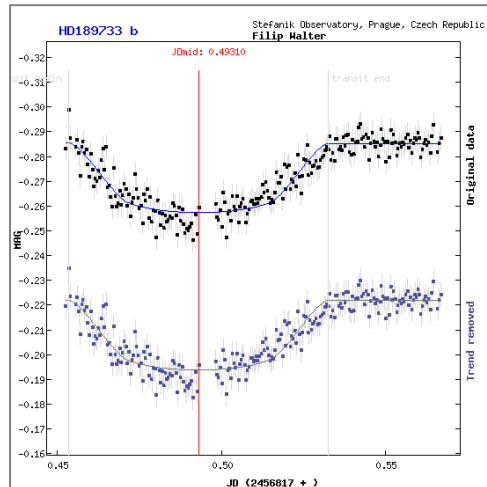
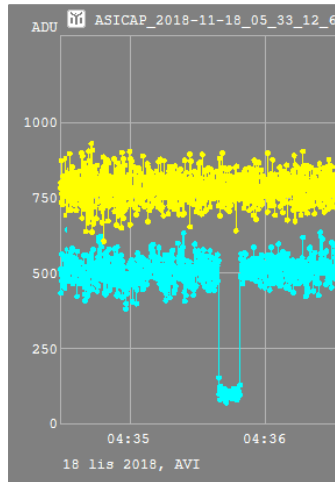
**40**

**150**



# CCD section – current activities

- DSLR and CCD photometry of eclipsing variable stars
  - quick results, even in bad conditions, enough targets
- Introduction to astrophotography, other meaningful observations



# Possible modes of operation

- **„Amateur“ level**

- basic maintenance without concerning observations
- amateur observers are bringing their own cameras
- observation programme not planned centrally

- **Semi professional level**

- instrument maintained, equipped with CCD, support infrastructure
- activity planned, coordinated regarding facility needs
- cooperation - high schools, colleges, clubs, researchers
- publication of results

- **Professional research level**

- professional staff, paid, own research or close cooperation
- observations planned, have priority over normal activities

# CCD section – what next?

- Better instrument maintenance
- Improve access to the instruments
- Build and maintain cohesion of the observers group
- Cooperation with researchers domestic/foreign – research/results
- Better advertise among course students (up to 200 ppl.!)
- Try to cooperate with high schools in Prague (200 schools)
- Use instruments of the second observatory in Prague
- Perhaps build a remote telescope outside Prague or even country





**Thank you for your attention**

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