

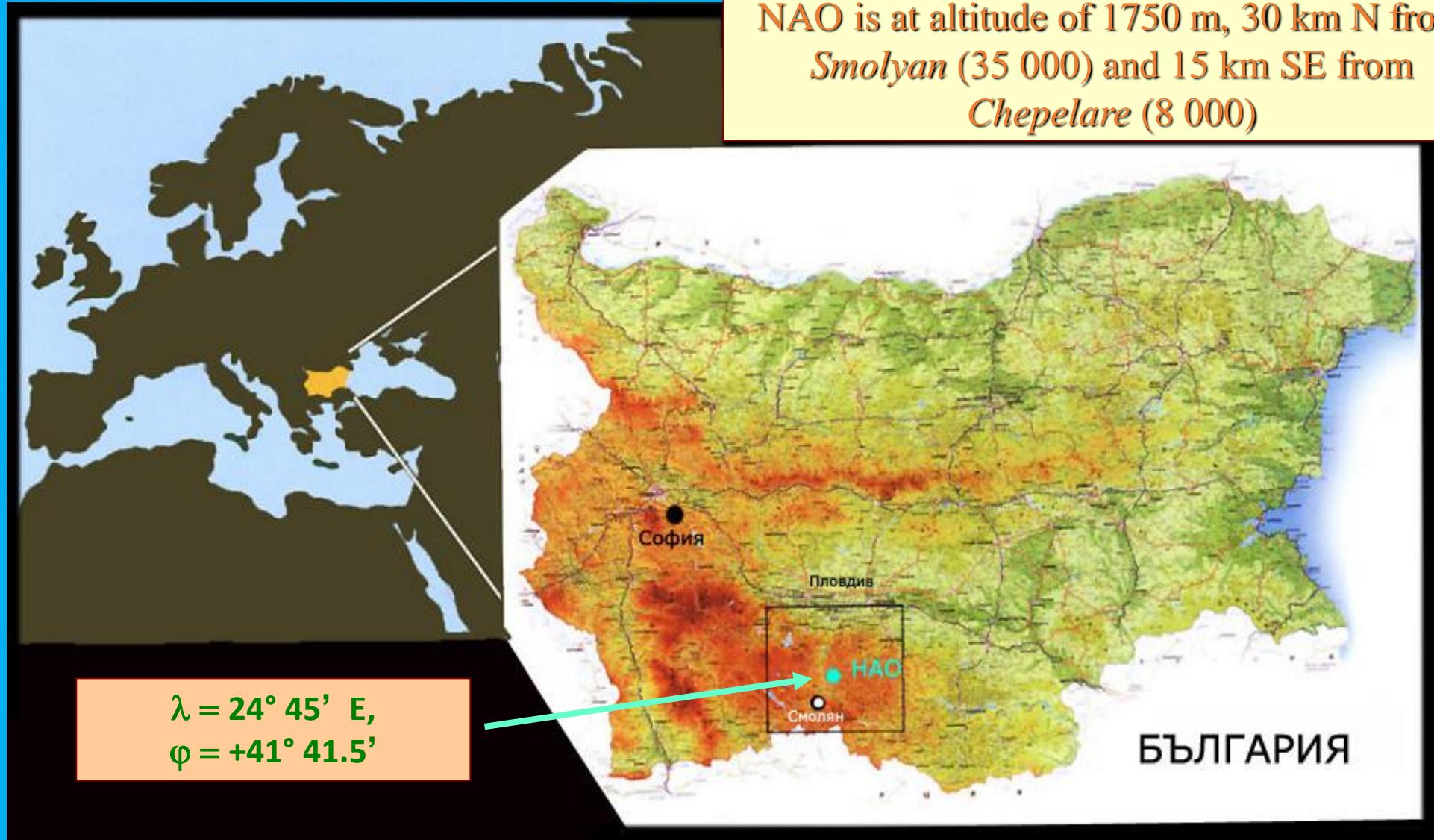
# IANAO

## Institute of Astronomy and National Astronomical Observatory –Rozhen Bulgaria

Ivanka Stateva  
TA manager

# National Astronomical Observatory – Rozhen

## *Where we are?*



# March 1981 – official opening of NAO - Rozhen

2-m Ritchey-Chretien  
Coude telescope



60-cm Cassegrain  
telescope



50/70 cm Schmidt  
telescope

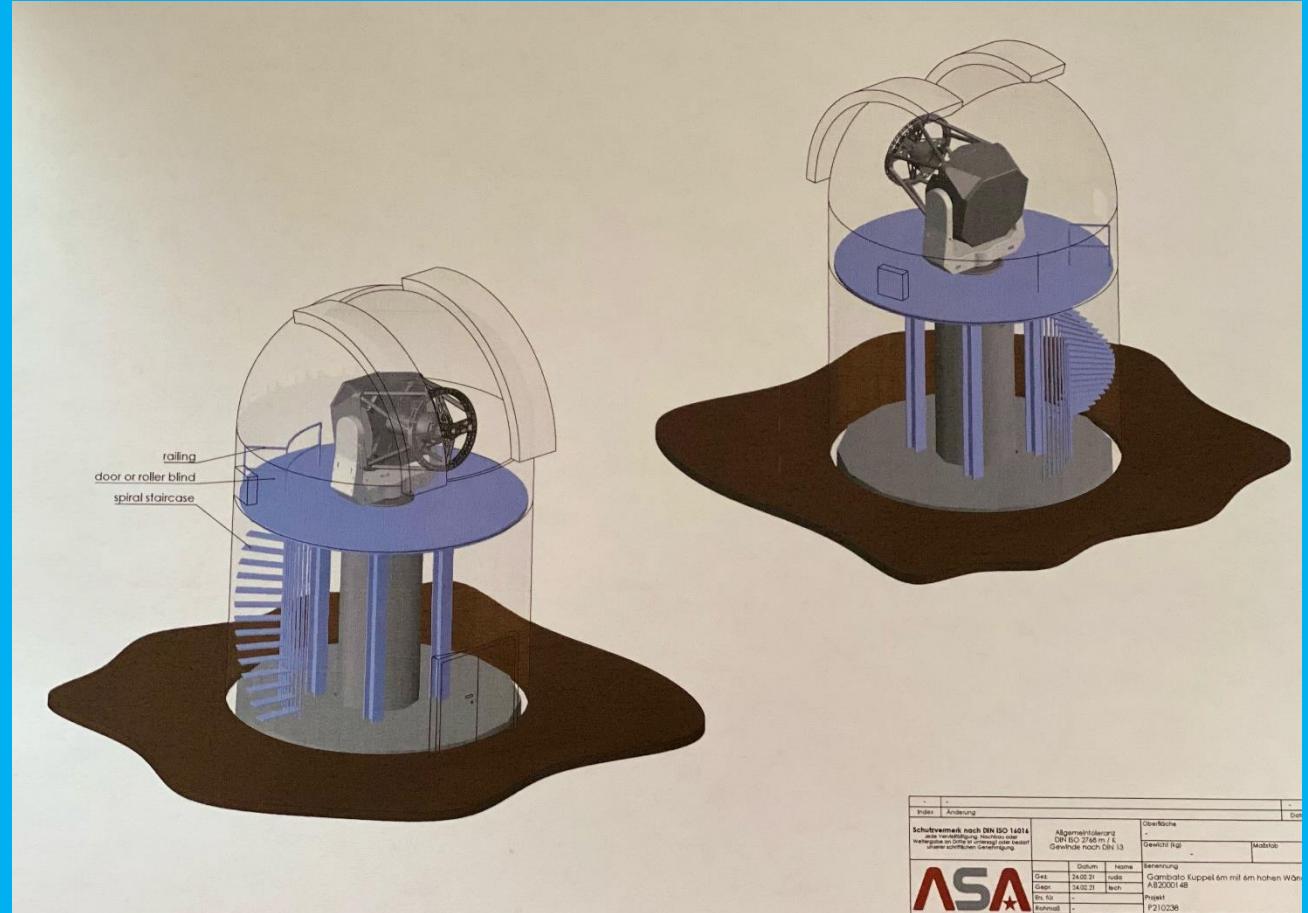


[www.nao-rozhen.org](http://www.nao-rozhen.org)

# The new telescope:

1.5 m Richie-Chretien  
fully robotized  
first observational tests – Summer  
2022

for observations of fast variable  
objects  
international campaigns for small  
bodies of solar system, variable stars,  
quasars etc.



Funded by the Roadmap for scientific infrastructure 2017-2023  
coordinated by the Ministry of Education and Science

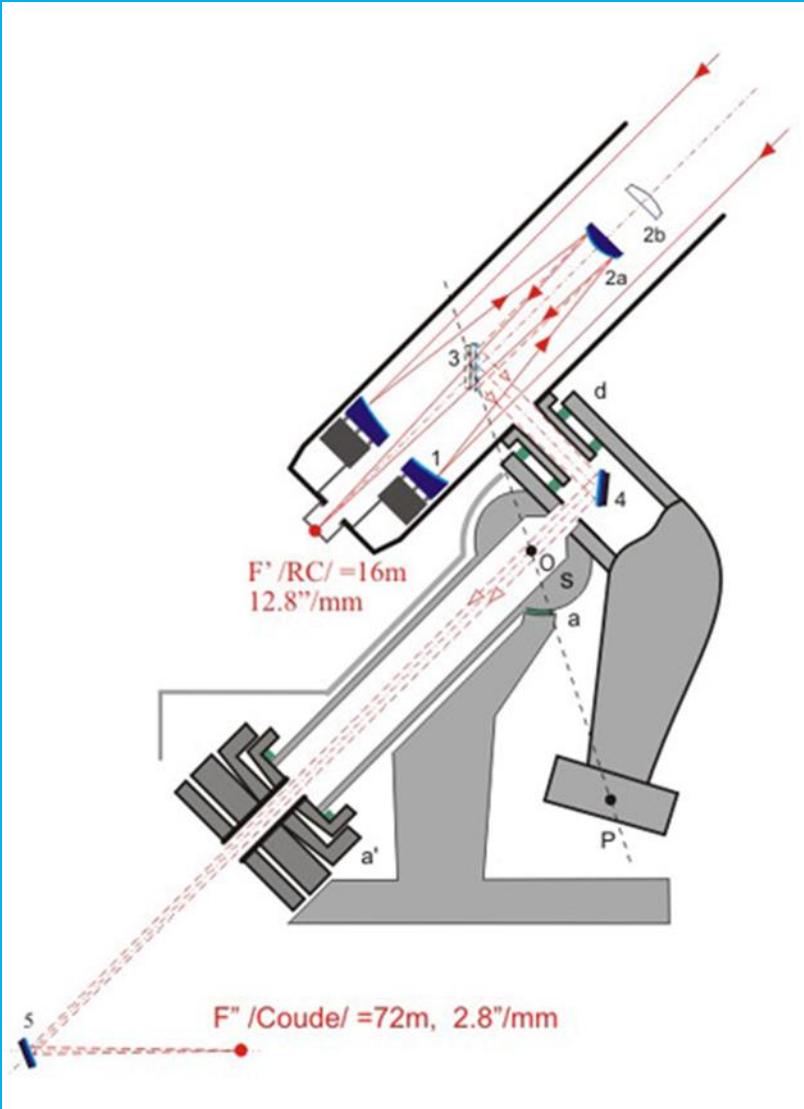
# National Astronomical Observatory – Rozhen

## The 2-meter telescope

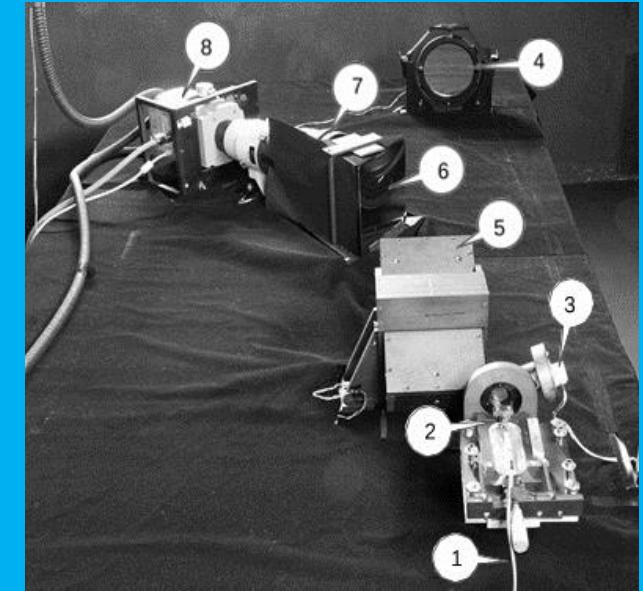


# *2m telescope – optical scheme and instruments*

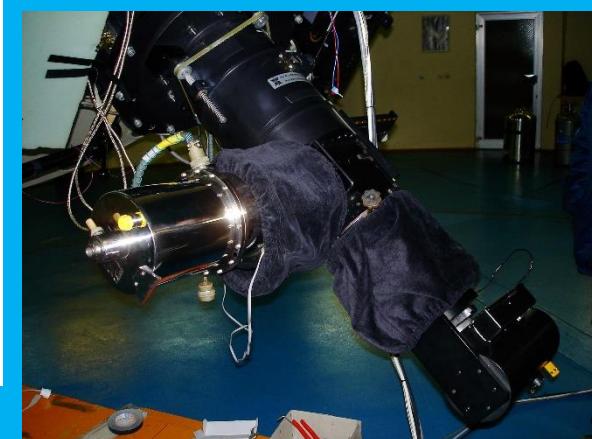
*Coude spectrograph*



*echelle spectrograph*



*2-channel focal reducer*

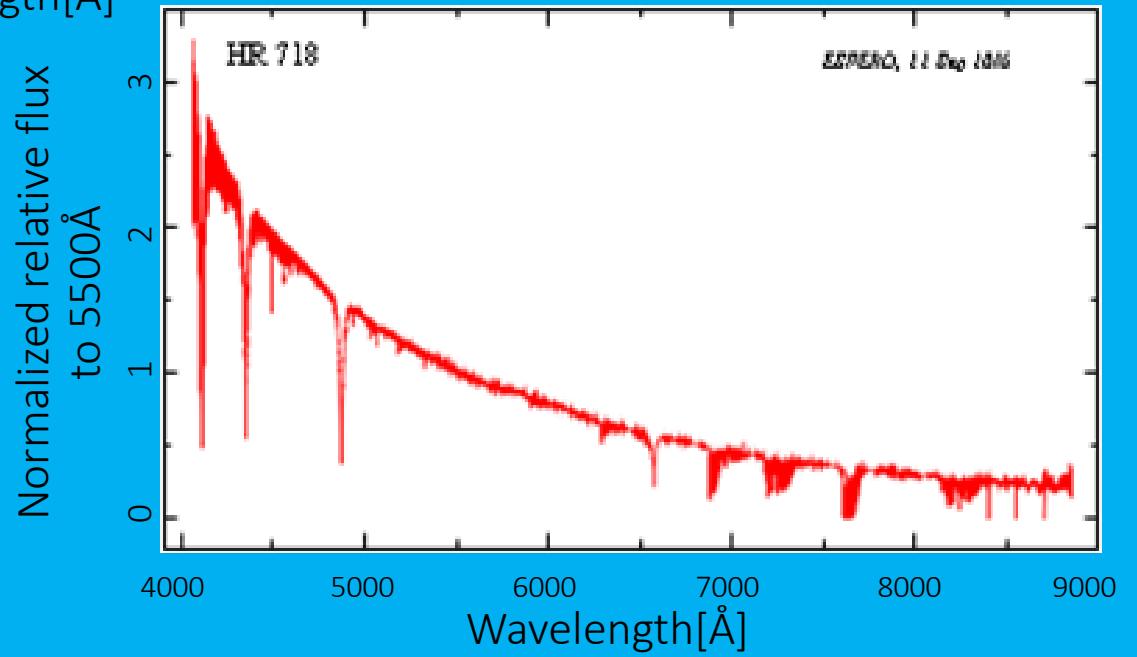
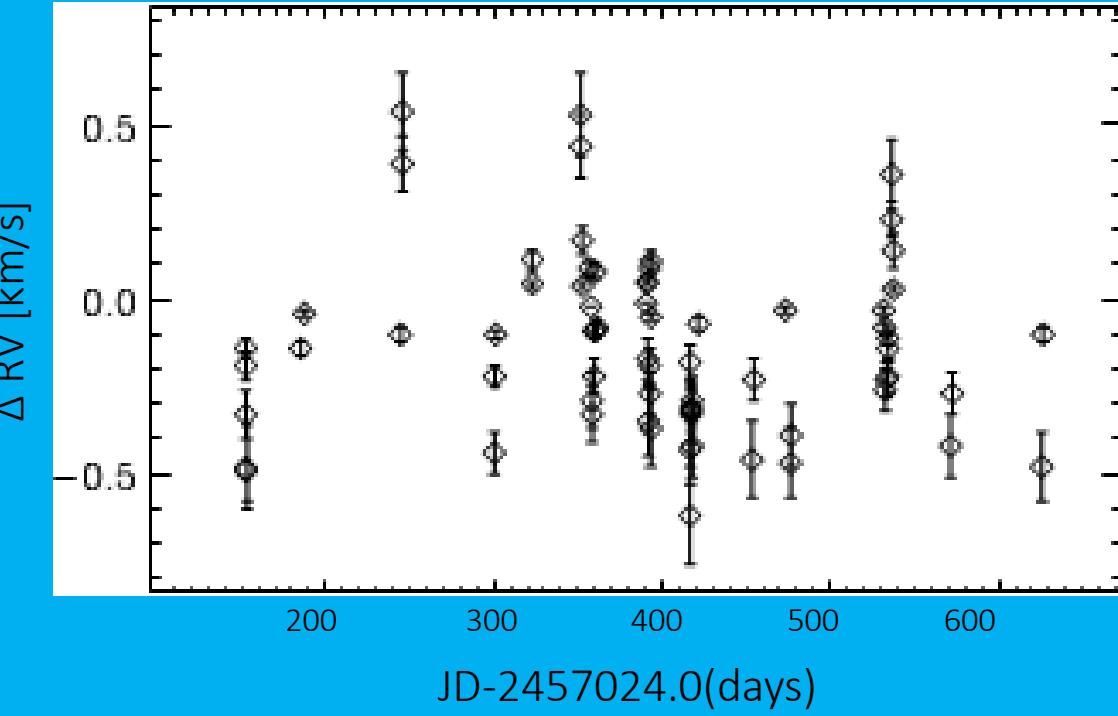
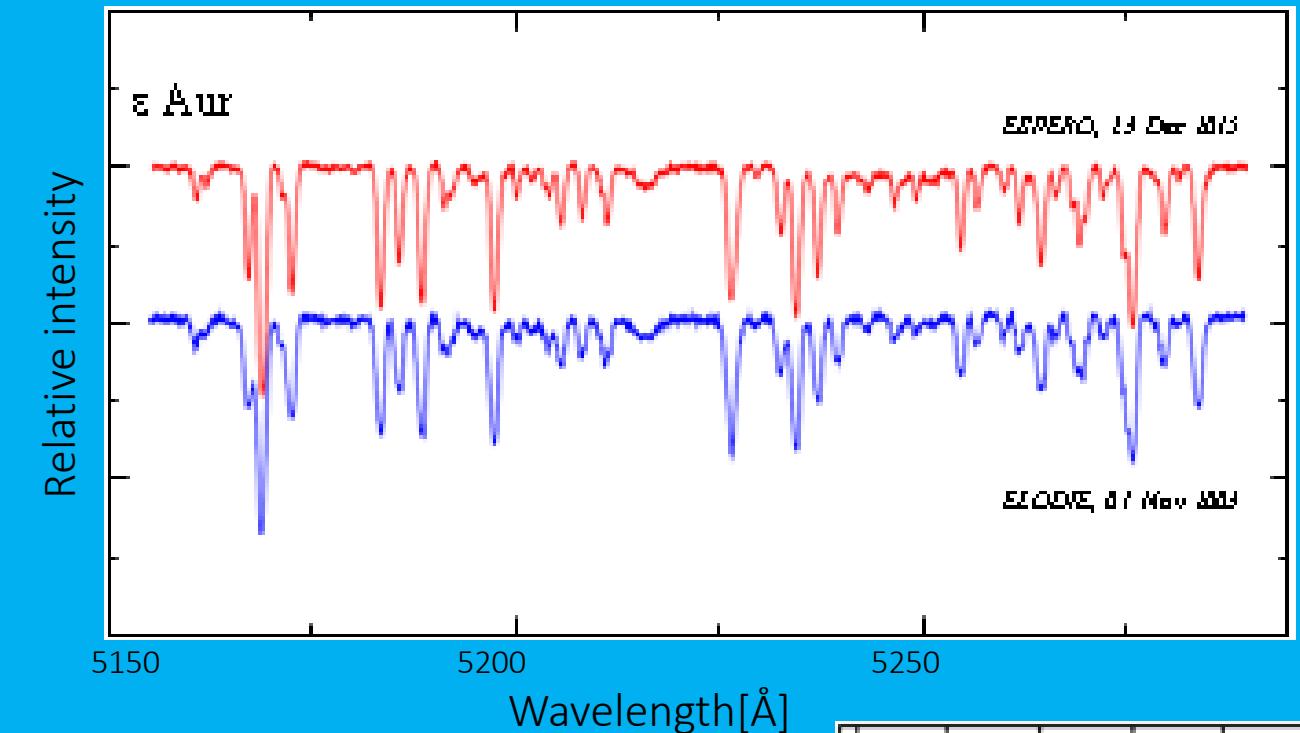


*photometer*



# ESpeRo characteristics

- spectral range:
  - 3900-9000 Å in 70 orders
- spectral resolution:
  - 35,000 at  $H_{\alpha}$
- SNR:
  - about 100 for  $m_v = 8$  exp time = 1800s
- limit magnitude of about 12.5-13.0



Radial velocities  
The RV accuracy is a few hundred meters per second

## Some useful links:

- **web-site of IANAO:**  
[www.astro.bas.bg](http://www.astro.bas.bg)
- **web-site of NAO-Rozhen:**  
[www.nao-rozhen.org](http://www.nao-rozhen.org)
- **web-site of Time Allocation Committee:**  
[http://docs.astro.bas.bg/~observations/index\\_EN.html](http://docs.astro.bas.bg/~observations/index_EN.html)
- **echelle spectrograph paper:**  
2017, BgAJ 26, 67, Bonev T., Markov H., Tomov T. et al., ‘ESpeRo: Echelle spectrograph Rozhen’