Austro-Croatian Telescope (ACT)

First 20 Years

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HRVATSKO - AUSTRIJSKI
1m TELESKOP
OTVOREN 20. LISTOPADA 1997.
KAO PRIMJER SURADNJE
DVIJU ZEMALJA I DOPRINOS
ISTRAŽIVANJU SVEMIRA U OKVIRU
SVEKOLIKE MEĐUNARODNE
ASTRONOMSKE ZAJEDNICE
SVEUČILIŠTE U ZAGREBU
GEODETSKI FAKULTET
SVEUČILIŠNI CENTAR
OPSERVATORIJ HVAR
OSTERREICHISCH - KROATISCHES
1m TELESKOP
ERÖFFNET AM 20. OKTOBER 1997.
ALS BEISPIEL DER ZUSAMMENARBEIT
BEIDER LÄNDER UND ALS BEITRAG
ZUR ERFOSCHUNG DES UNIVERSUMS
IM RAHMEN DER INTERNATIONALEN
ASTRONOMISCHEN GEMEINSCHAFT.
UNIVERSITÄT ZAGREB
GEODÄTISCHE FAKULTÄT
UNIVERSITÄTSZENTRUM
OBSERVATORIUM HVAR

ACT

- Ritchey-Chretien with english mounting
- Tube and mounting by REOSC (France)
- 106 cm promary mirror (made by Ritchey)
- 26cm f/15 secondary miror (40 cm f/6.8)
- Field of view vthout vignetting 8’
- FOV 2’x4’ (5’x7’ using focal reducer)
- Moravian instruments **G2-1600 CCD Camera** (2014 -)

The story of ACT and what it has to do with Murphy's law

Since 1976 it was stored at Astronomical institute in Vienna

1984 in Vienna – First informal talks

1991 – in February Aide Memoire was signed

1991-1995 – War in Croatia

1996 – renovation of the telescope (Optical instruments, Prague)

1997 – building of the dome

20 October 1997 Opening of the telescope

Polar axis missaligned by few degrees

1999 – rectification of misalignment

September 2001 the CCD camera was instaled

First light - photometry

Between the **2nd and 9th of September 2001** an Austrian-Croatian delegation installed the first CCD-camera at the 1m ACT in Hvar and took first light images of h and chi Persei. In addition, M15 and some open clusters were also observed.

[Institute of Astronomy, Vienna](#)

W.W. Weiss
M. Rode-Paunzen
K. Zwintz

[Hvar Observatory](#)

D. Ruždjak
D. Sudar
H. Božić

P. Mayer and K.D. Rakoš

First light- h Persei

h Per (NGC 869)

α = 2h 19.1m δ = +57^{o} 9’

3rd Sept. 2001 23:30 UT

120 s, y-filter

6’x6’

Murphy's law continued

Nov-Dec 2001 – 44 Tau campaign
2008 Pixis 2048B by Princenton Instruments
Still slightly misaligned

When it doesn't go wrong

using vacuum pump
(NGC 6705 Summer 2003, NGC 7296 Summer 2004)
2005 First results published

2010 ApogeeAltaU47 borowed from Gerald Handler
2014 Moravian instrumants G2-1600 Camera

Some succesfull observing runs
Several succesfull projects

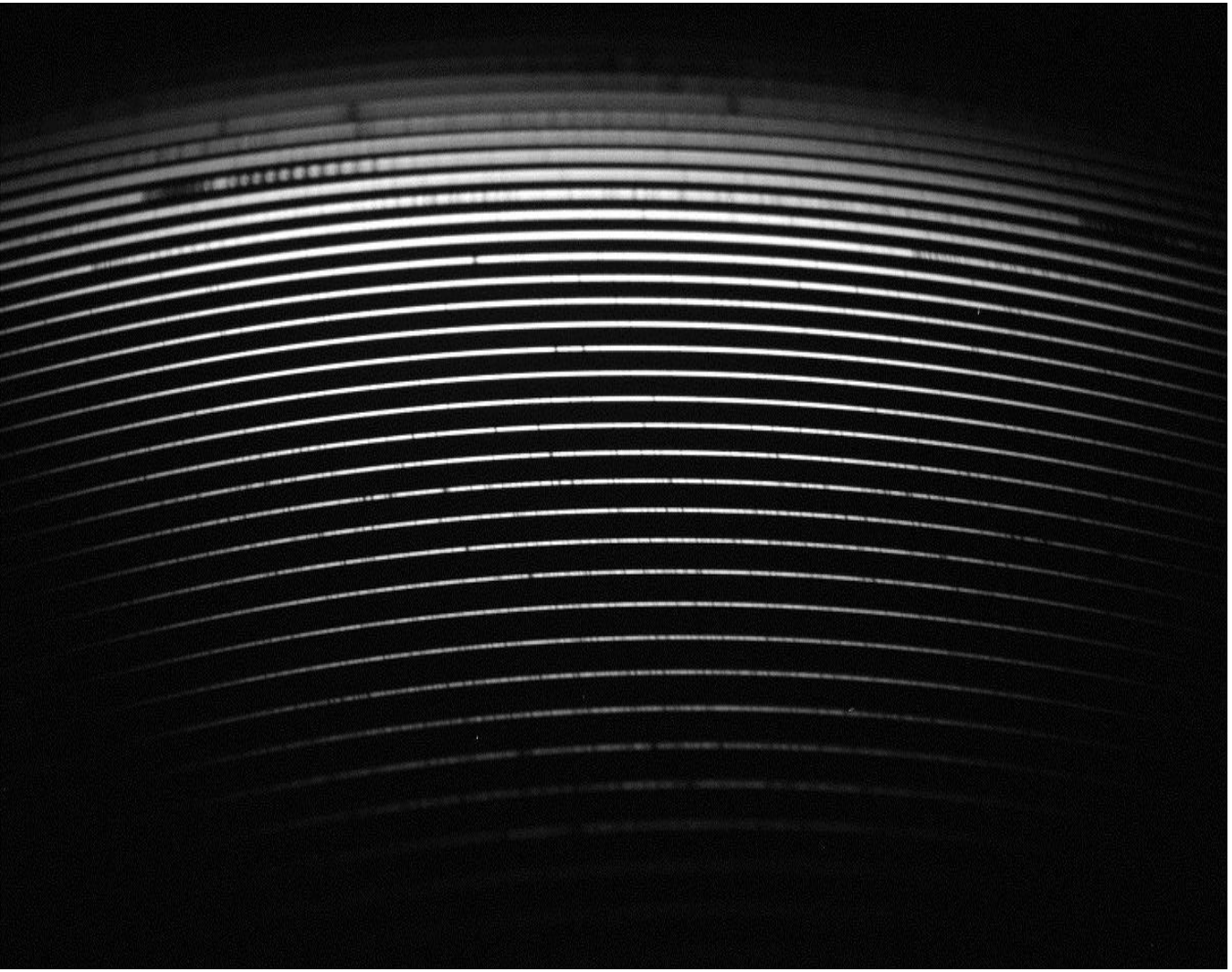
First light - spectroscopy

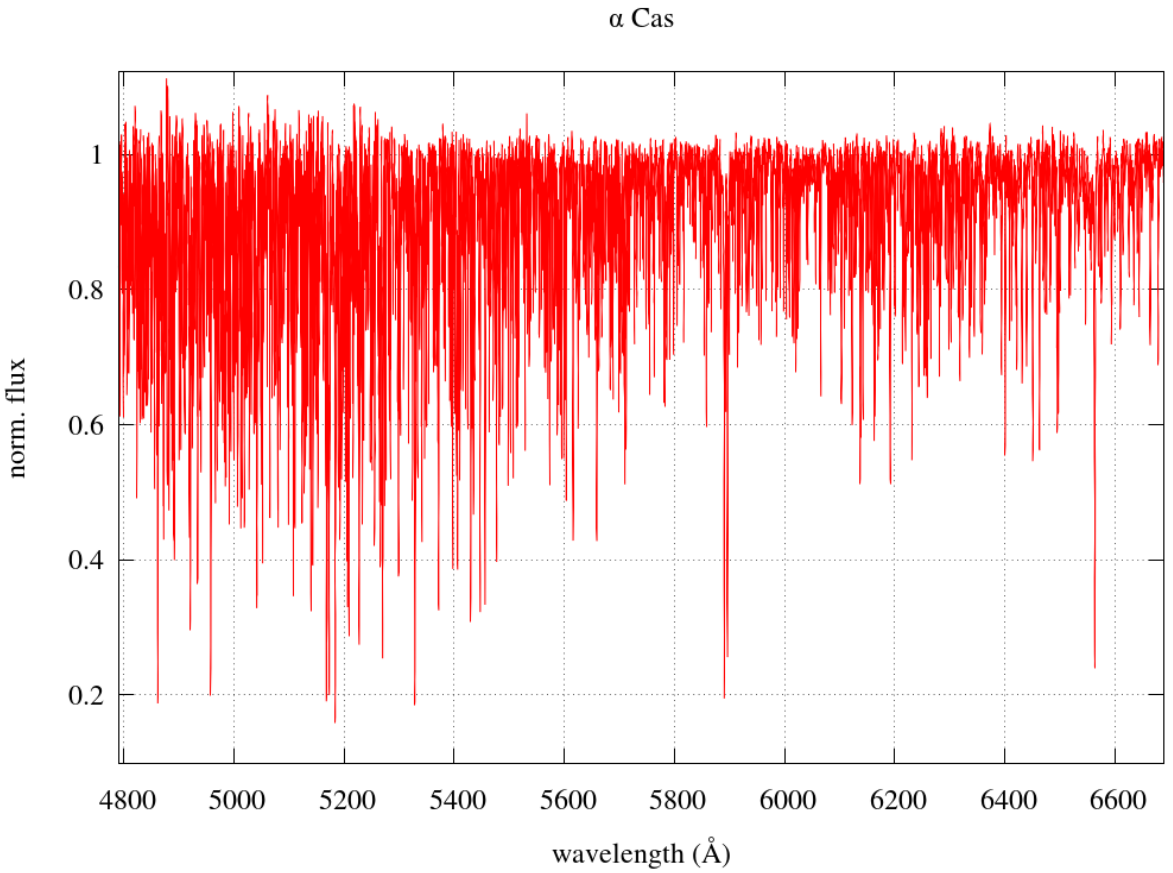
Shelyak eShel spectrograph
Gothard Astrophysical Observatory
Szombathely, Hungary

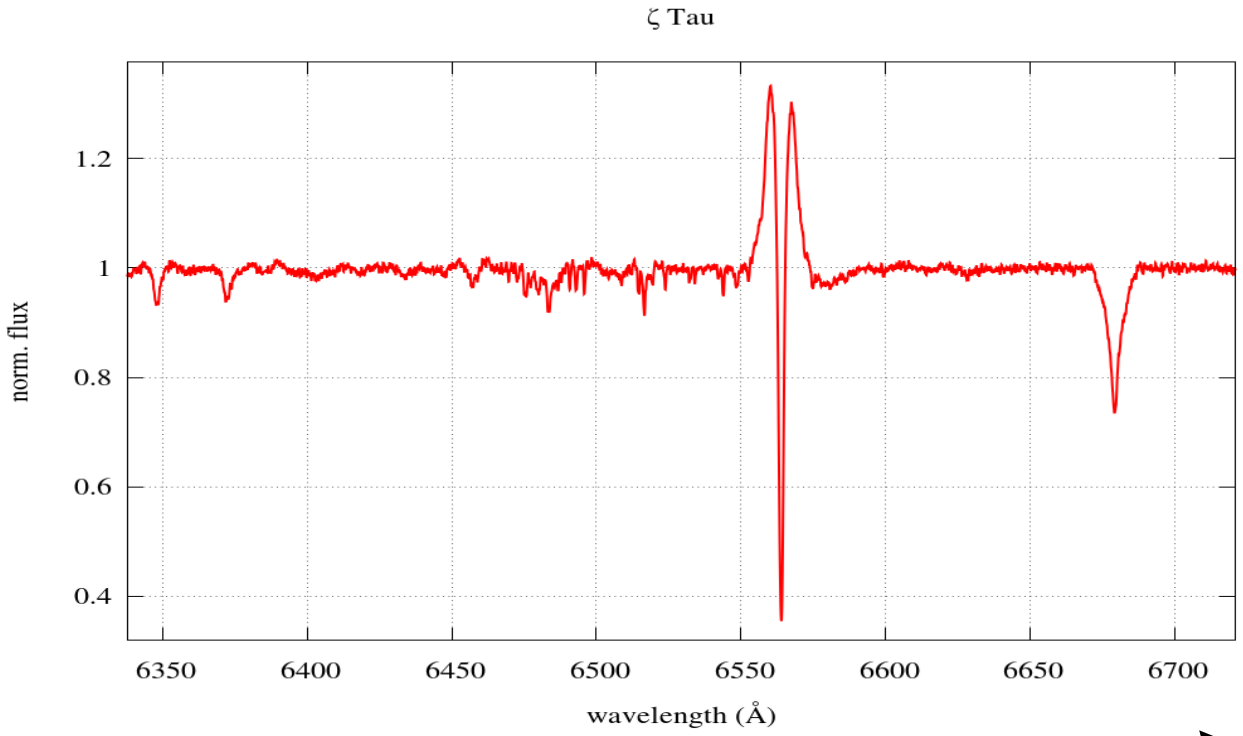
Informal talks and 1st visit - Nov 2012

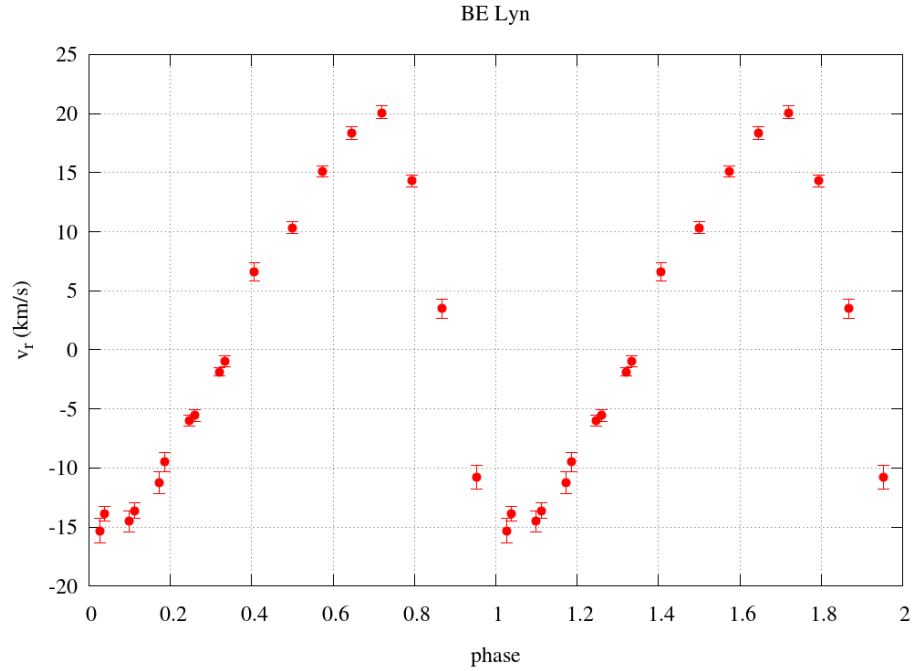
Between the 22-30 January 2013 the spectrograph was installed at the ACT
On 25 Jan 2013 observations were performed.

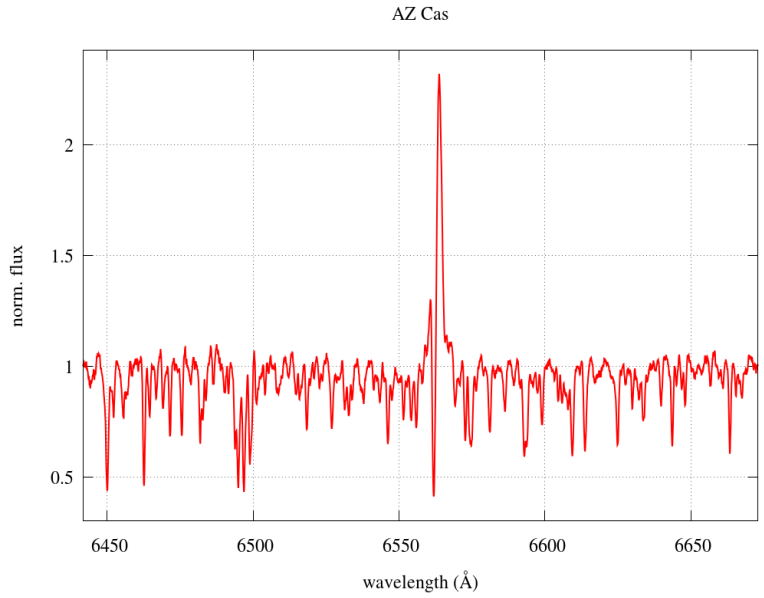
α Cas RA=00 40 DEC=+56 32, V=2.23











ζ Tau Be star V = 3.0, Exp time = 120 s

BE Lyn δ Sct variable V=8.8

AZ Cas Algol type EB V=9.22

Automatization of **St**elar **T**elescopes of **H**va**r** **O**bservatory (ASTHRO)

ProjectSoft
The offer for the complete automation of the 1 m ACT at the Hvar Observatory in Croatia for remote control from Zagreb (and other locations) – 250,000 €

Acquisition of spectrograph – 100,000 €

It doesn’t include the solution of polar axis misaligment

M 57

ACT →

HST →