

Workshop Laboratori

Progetto di Eccellenza

The background image shows the Asiago Astrophysical Observatory, featuring a large white dome with a glass top, situated on a grassy hill. The sky is blue with scattered white clouds. In the distance, there are green hills and a small white building with a dome. The foreground is a lush green field with some small flowers.

Ricerca e didattica all'Osservatorio
Astrofisico di Asiago:
il telescopio Galileo di 122 cm

Stefano Ciroi

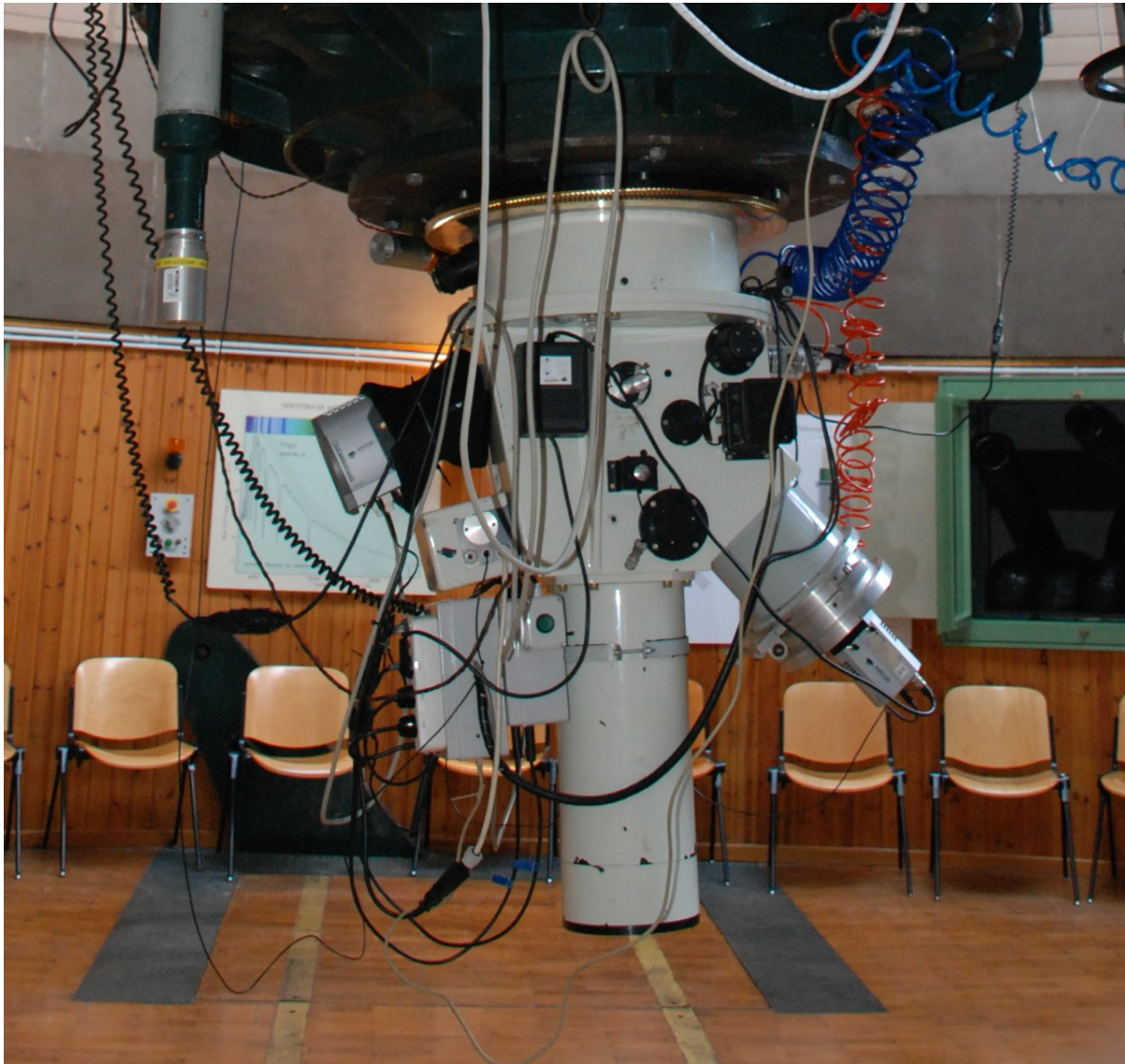


1942



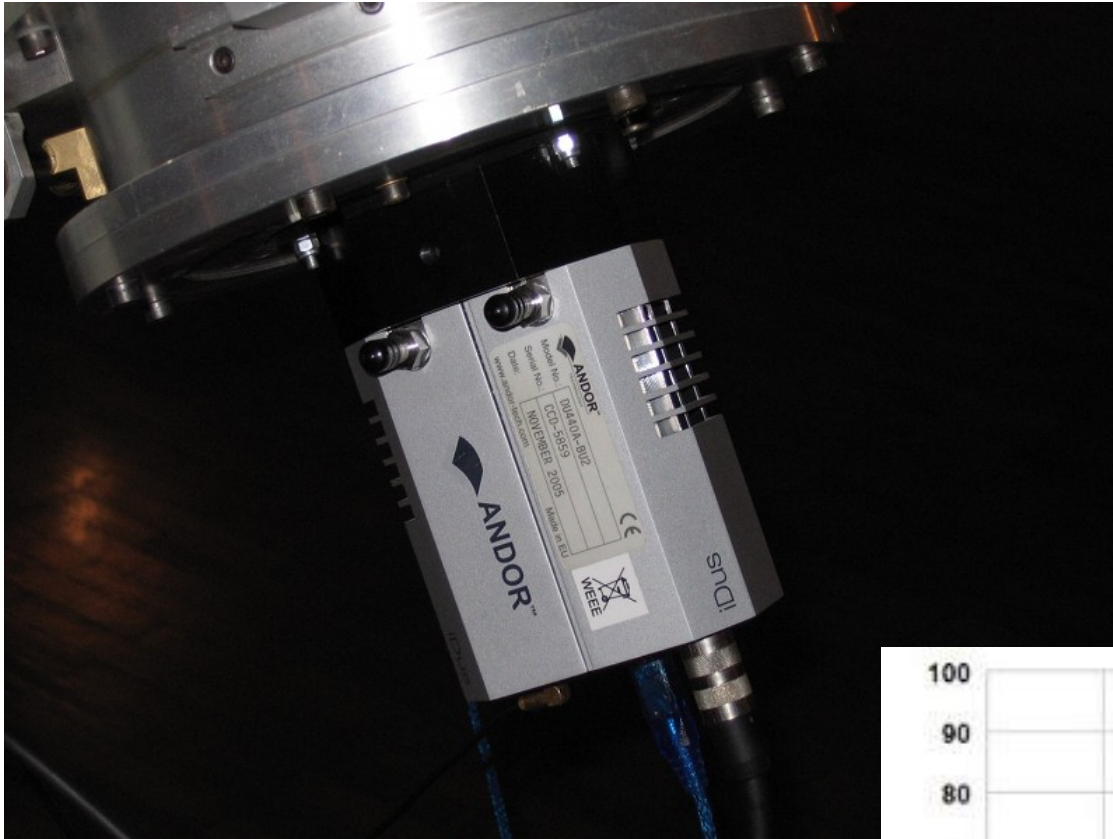
Oggi

Spettrografo Boller & Chivens

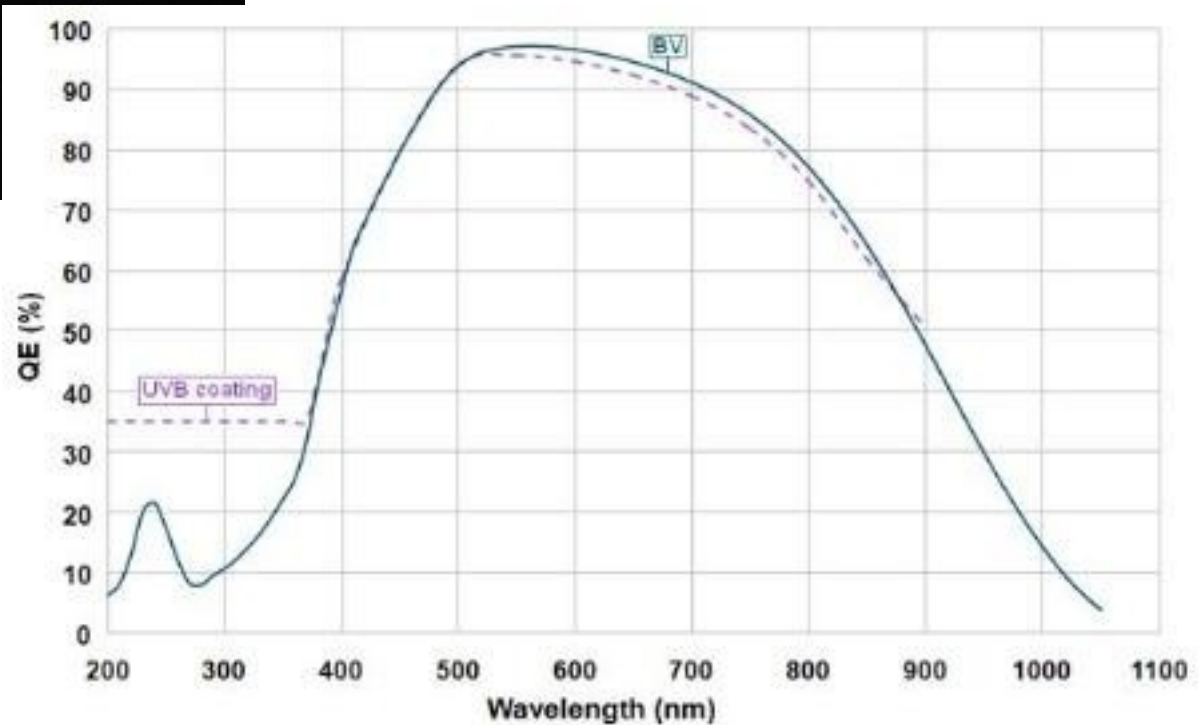


Grating	λ_B (Å)	$\Delta\lambda$ (Å/px)	R (slit=3.5")
150	5000	4.4	330
300	5000	2.3	670
600	4500	1.2	1250
1200B	4000	0.6	2500
1200R	6825	0.6	5250

Detectors

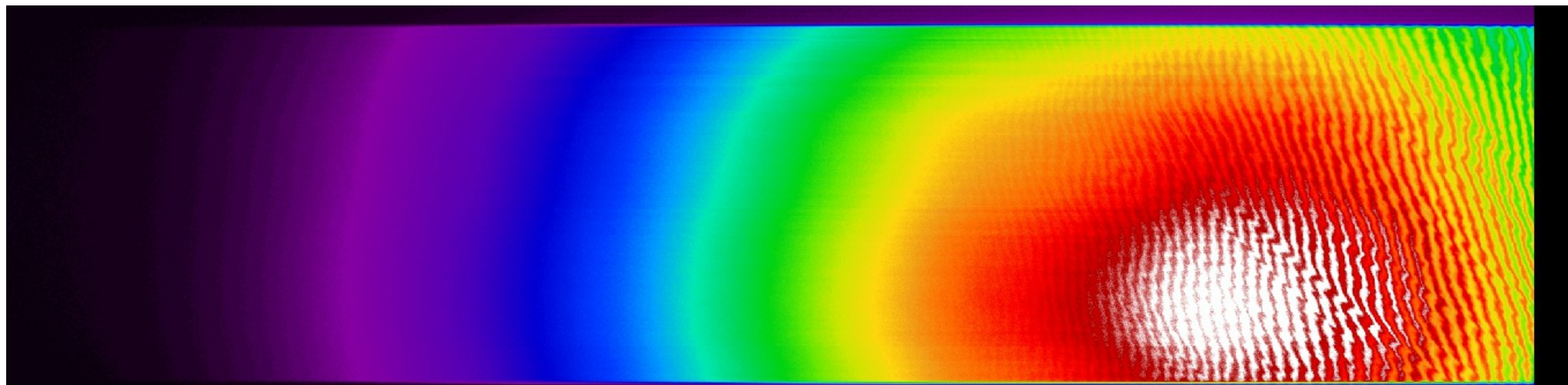
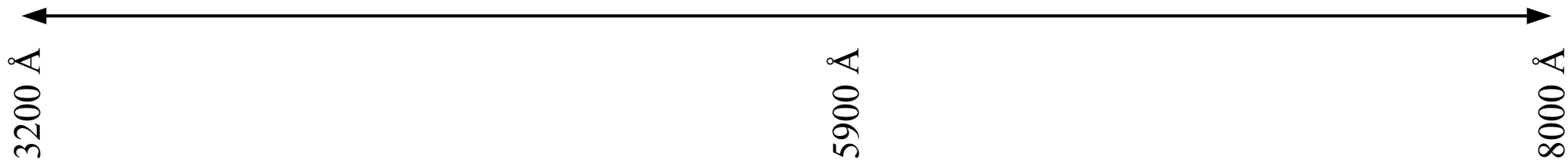
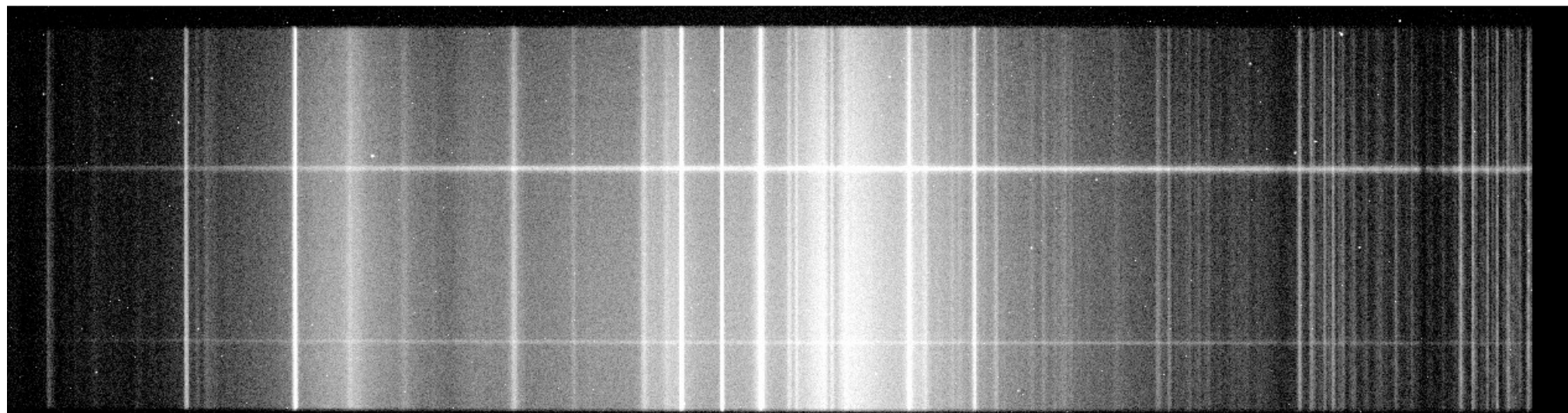


- Andor iDus (2006)
- E2V CCD
- 512 x 2048 px
- pixel size = 13.5 μm
- $\text{RN} = 3 \text{ e}^-$
- gain = 1.4 e^-/ADU
- $\text{dark}_{\text{min}} = 0.004 \text{ e}^-/\text{px}/\text{sec}$
- $T_{\text{min}} = -80^\circ$

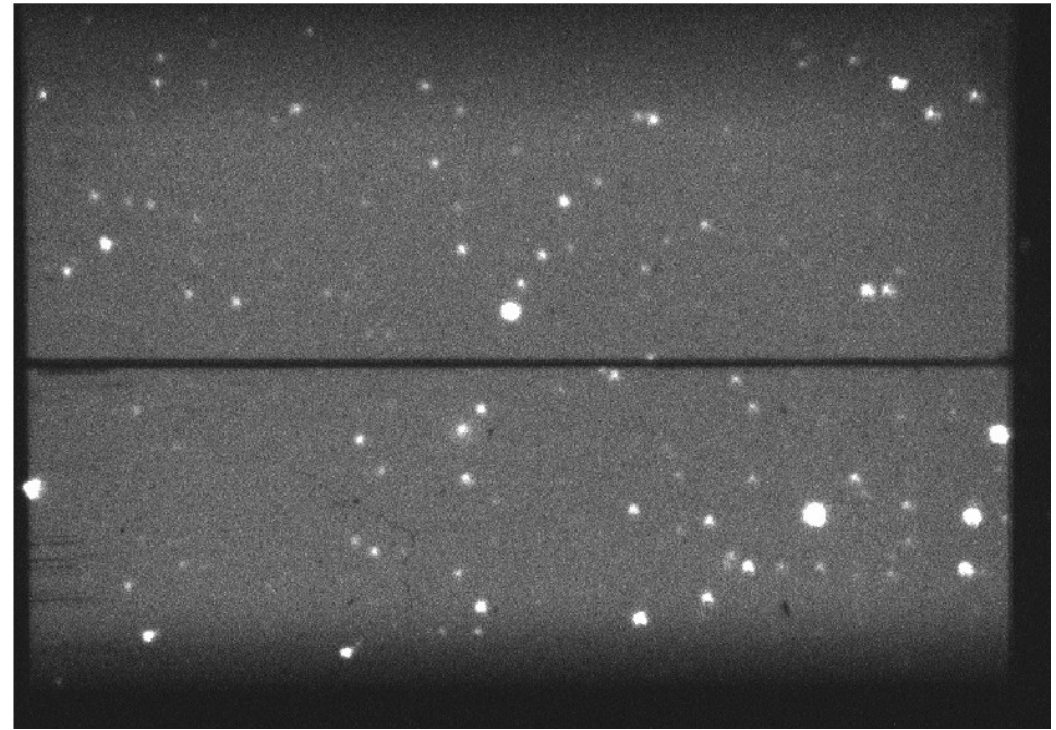


Detectors

$T_{\text{exp}} = 900 \text{ sec}$



Detectors



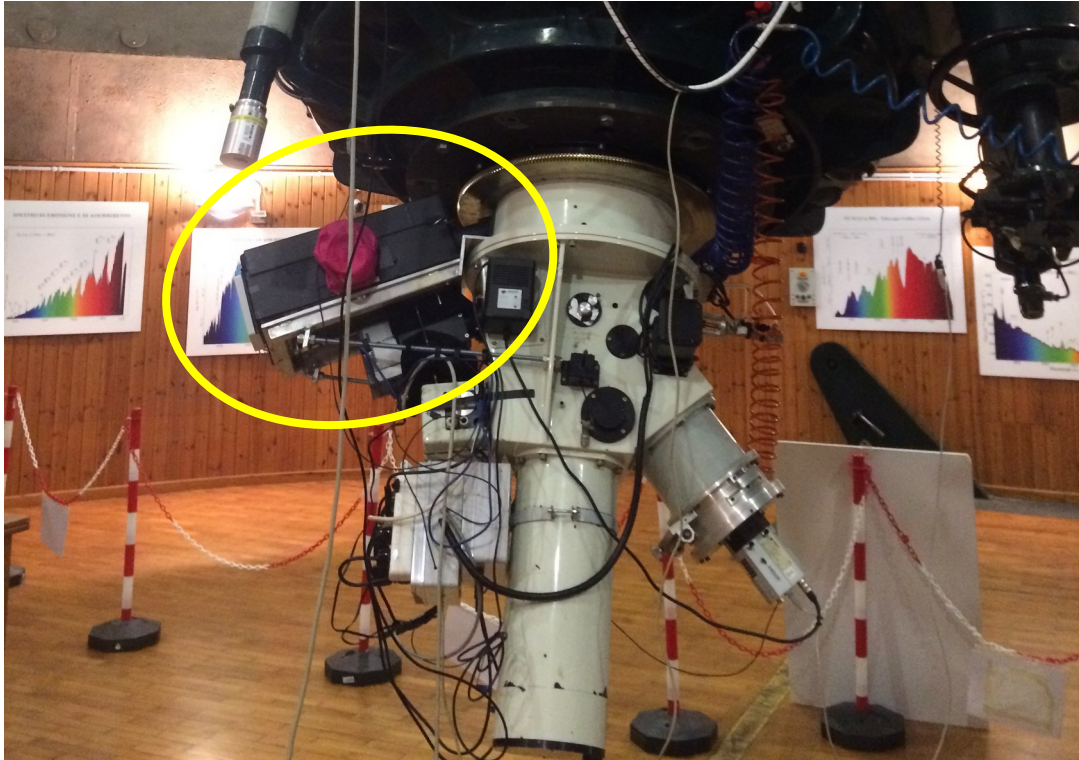
8.5'

$T_{\text{exp}} = 5 \text{ sec}$

- Andor iXon (2008)
- Texas EMCCD
- 1004 x 1002 px
- pixel size = 8 μm
- $\text{dark}_{\text{min}} = 0.016 \text{ e}^-/\text{px}/\text{sec}$
- $T_{\text{min}} = -50^\circ$

Fast photon counter

Collaborazione INAF + DFA



Iqueye Fiber Interface, IFI



Iqueye

**The lowest frequency Fast Radio Bursts:
Sardinia Radio Telescope detection of the periodic FRB 180916 at 328 MHz**
(Pilia et al. 2020, ApJ 896, 40)

Upper limit on the optical fluence of FRB 180916.J0158+65
(Zampieri et al. 2020, Atel #13493)

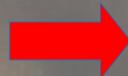
Ricerca

Monitoraggio di transienti e sorgenti variabili

- Simbiotiche
- Novae
- Supernovae
- Comete
- Near Earth Objects
- Active Galactic Nuclei

- Occultazioni lunari e di TNO
- Pulsar ottiche
- Timing di transienti ottici
- Interferometria di intensità

2008-2018



70 articoli referati

80 circolari astronomiche
tesi di laurea e dottorato

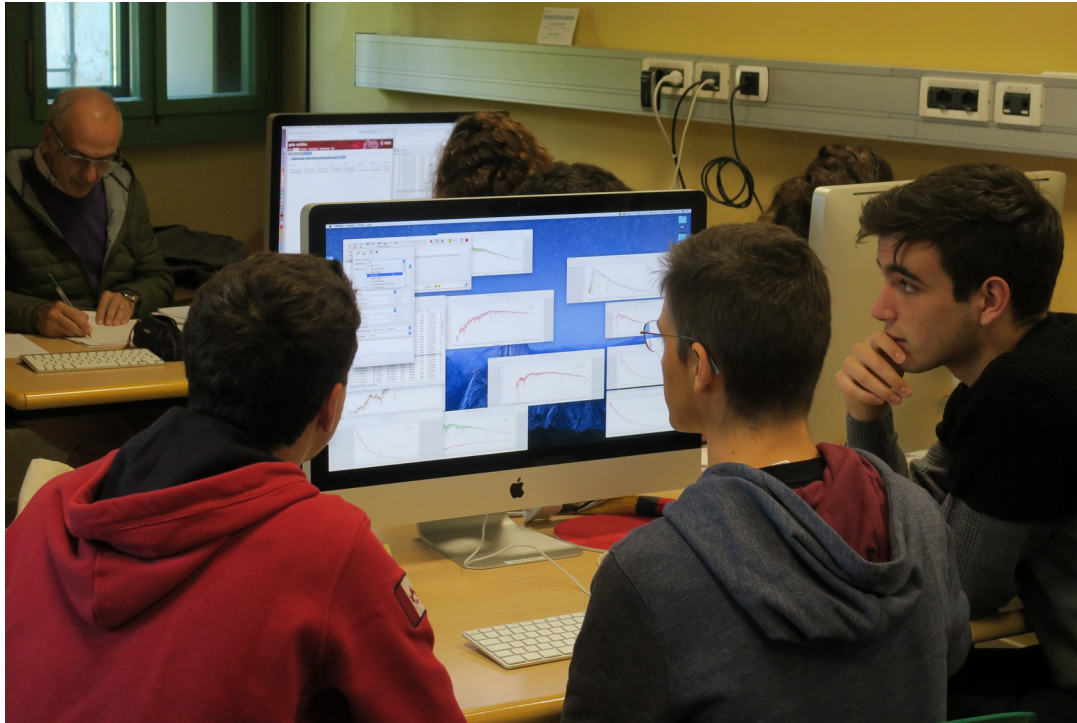
Didattica universitaria



- Astronomia 1 (LT, II anno)
 - Astrofisica 1 (LT, II anno)
 - Laboratorio di Astronomia (LT, III anno)
 - Ottica applicata (LT, III anno)
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- Laboratorio di Astrofisica 1 (LM, I anno)
 - Istituzioni di Astronomia e Astrofisica (LM, I anno)
-
- Astronomia per Geologia (LT)
 - Astronomia per Scienze Naturali
 - Astronomia per Matematica (LT)
-
- Scuole di dottorato nazionali e internazionali

Didattica con le scuole

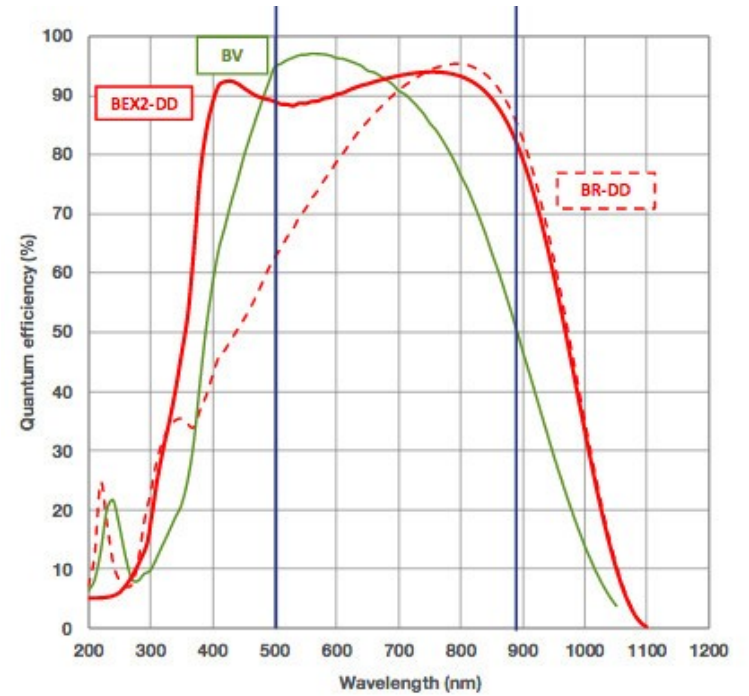
- Il Cielo come Laboratorio
- Asiago School for Young Astronomers with GalileoT122 Observations (PCTO)



Criticità - 1



Andor iKon
2048 x 2048 px
No fringing



Andor iXon
1024 x 1024 px

Criticità - 2

