JPCam

A. Ederoclite

FONDO DE INVERSIONES DE TERUEL
GOBIERNO DE ARAGON
UNIÓN EUROPEA
Fondo Europeo de Desarrollo Regional
"Construyendo Europa desde Aragón"
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CSIC
Consejo Superior de Investigaciones Científicas
Ministério da Ciência e Tecnologia
FAPESP
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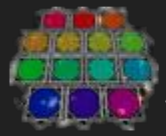


J-PAS

Javalambre Physics of the Accelerating Universe Astrophysical Survey

Why yet another survey?

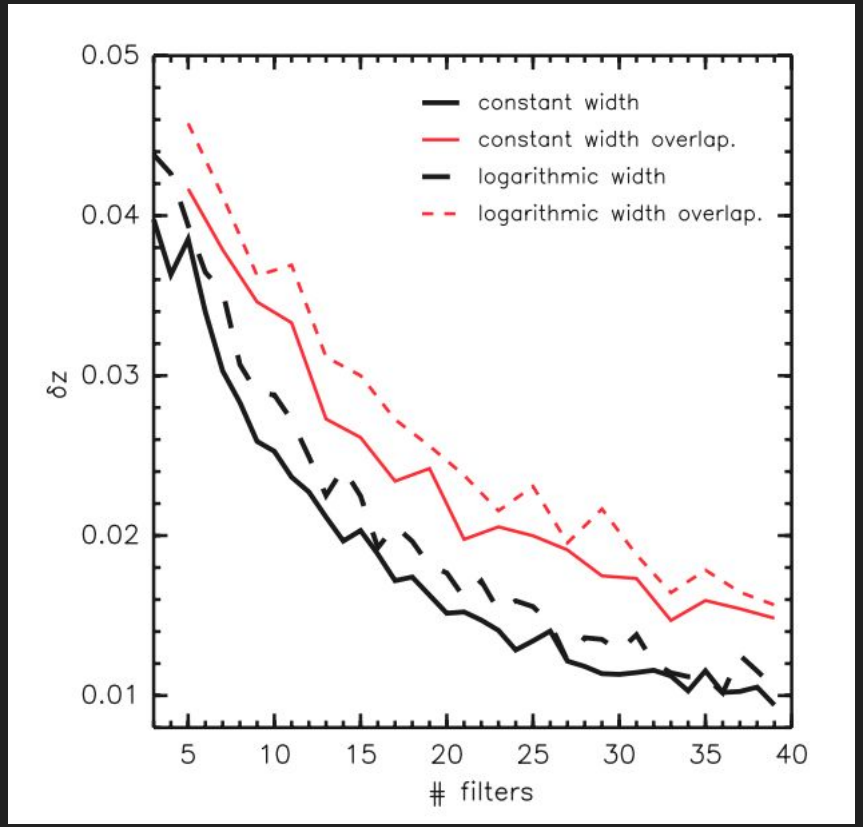
Study of dark energy.

Spectroscopic surveys are intrinsically biased.

(So are photometric ones but in a different way)

54 narrow band filters

Benitez et al. (2009)



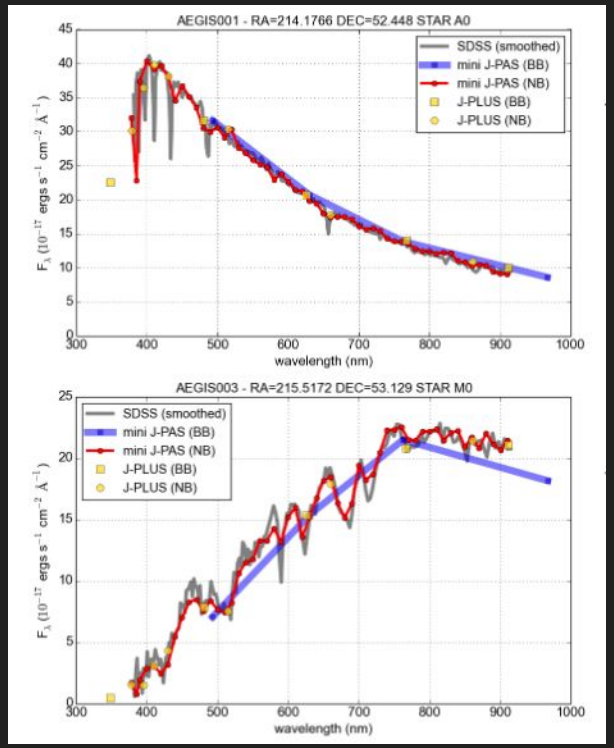
J-PAS

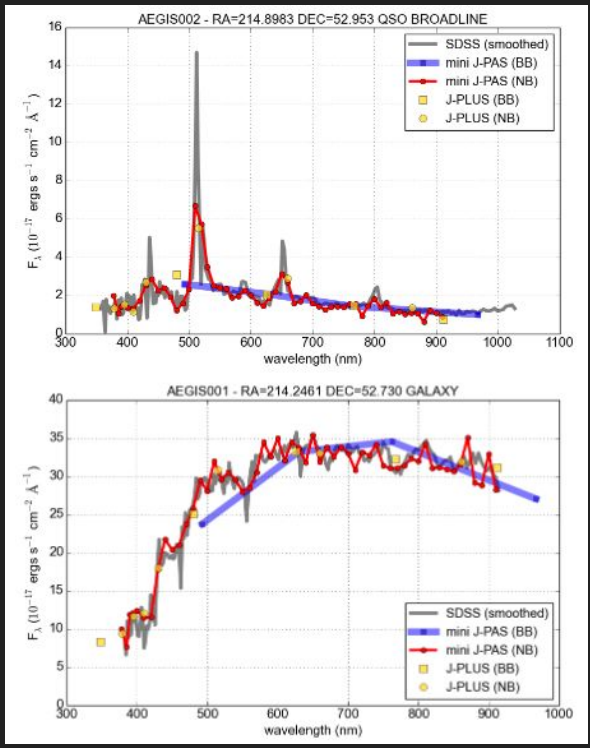
Javalambre Physics of the Accelerating Universe Astrophysical Survey

mini-J-PAS

1 sq.deg.

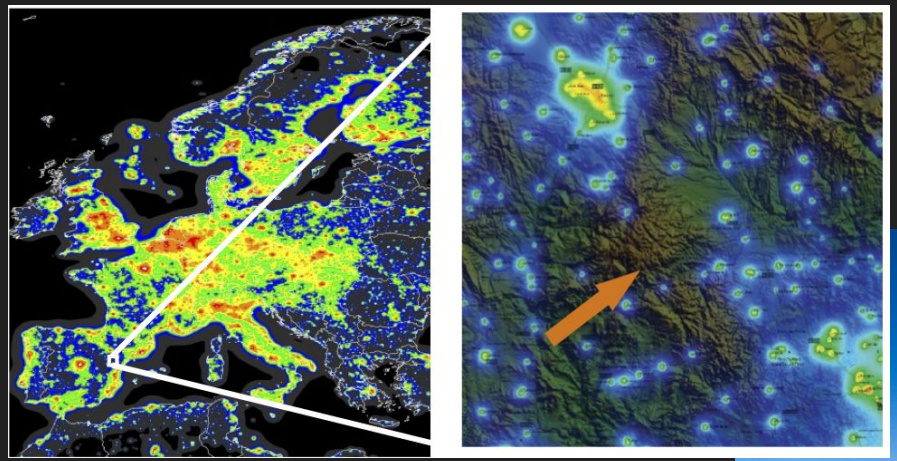
J-PAS-like data





http://riastronomia.es/el-universo-en-56-colores-ciencia-con-los-primeros-datos-de-j-pas/

The Observatorio Astrofísico de Javalambre



1957m above sea level

Median seeing 0.71” (V-band)

74% of nights clear for at least 30%

Moles et al. (2010)

The Javalambre Survey Telescope

2.5m diameter

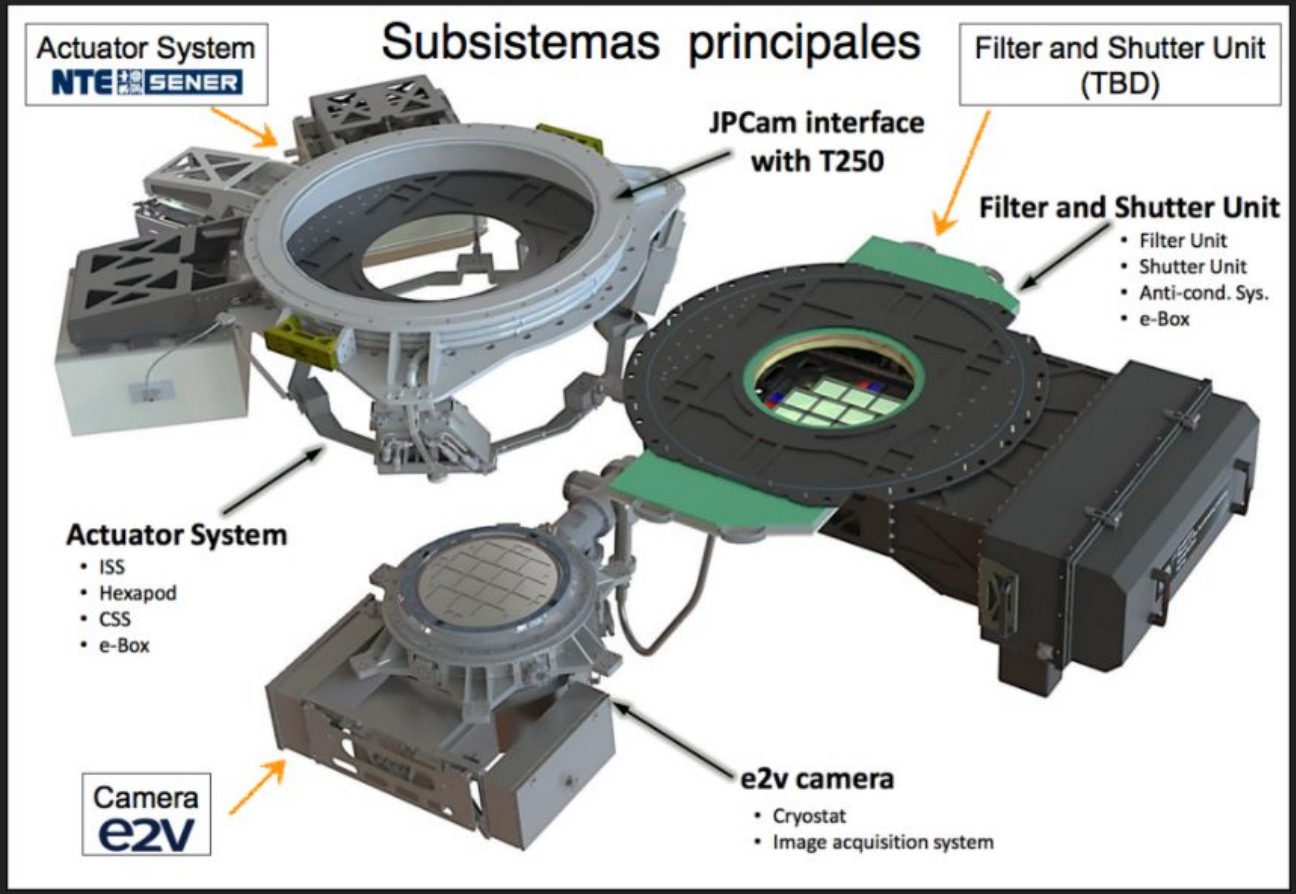
f#3.5

Ritchey-Chrétien

5 sq.deg. FoV

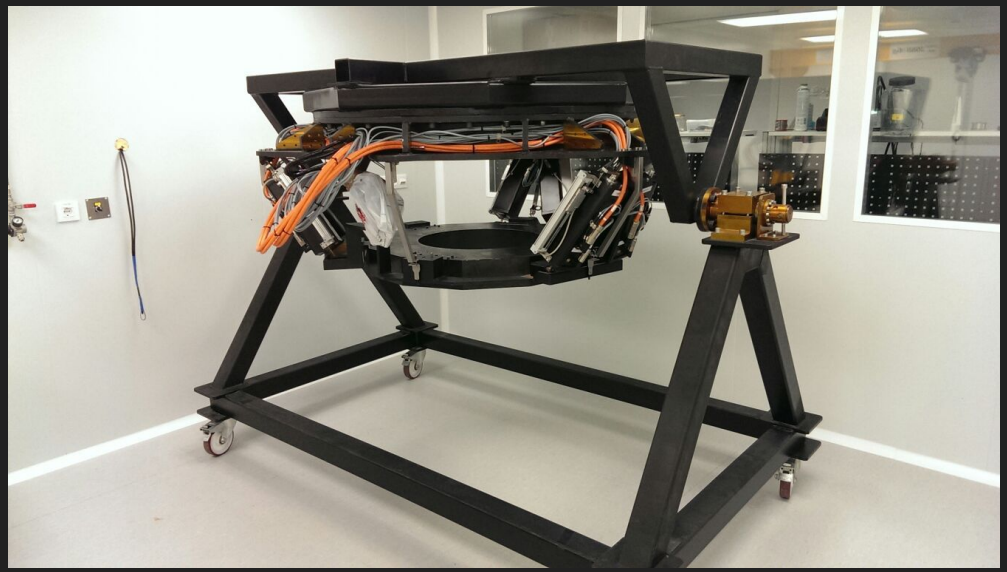
Alt-az mount

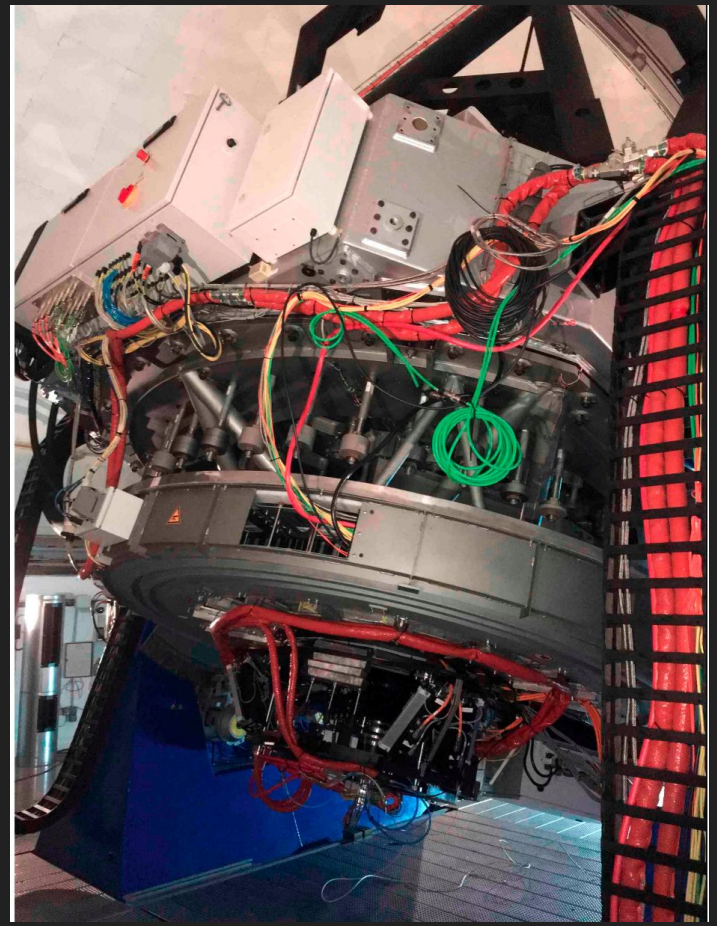
JPCam


Subsistemas principales
Actuator System
NTE SENER
Filter and Shutter Unit
(TBD)
JPCam interface
with T250
Filter and Shutter Unit
• Filter Unit
• Shutter Unit
• Anti-cond. Sys.
• e-Box
Actuator System
• ISS
• Hexapod
• CSS
• e-Box
Camera
e2v
e2v camera
• Cryostat
• Image acquisition system

The Actuator System

Hexapod holding the camera.

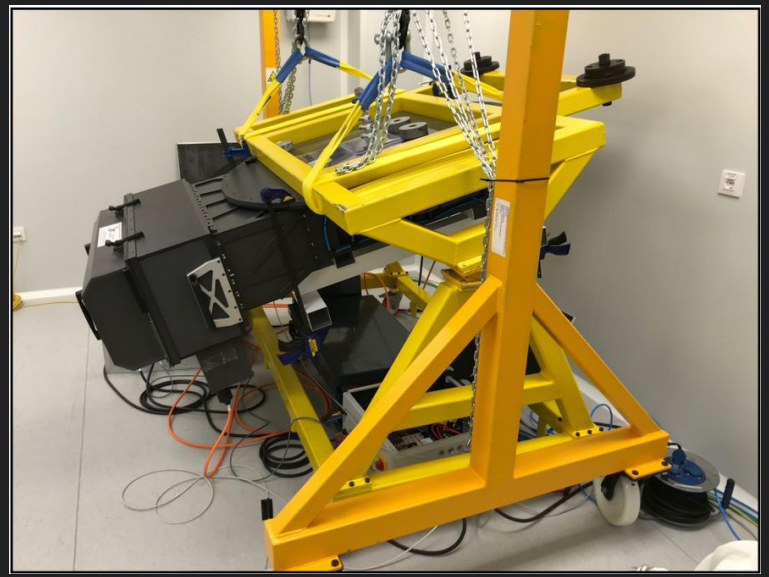




The Filter and Shutter Unit

5 filter trays mounted at any given time

Bonn double curtain shutter



The Camera

Built by Teledyne-e2v

14 9kx9k full-wafer CCDs

LN cooled

Just accepted at OAJ :-)

The contribution from the State of São Paulo

1+ M US$

- Actuator system
- Development FSU Control System
- JPCam Interfaces

Summary

J-PAS is a new concept for large photometric survey.

JPCam is the instrument to perform J-PAS:

- 59 filters permanently mounted
- Active control of the image quality through hexapod(s)
- 14 9kx9k CCDs