



VO goes to school

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INAF-OATs

Why

- Bring science to students and get them engaged
- Give students an involving glimpse of the professional world of astronomy, including a perception of the infrastructure.
- Make them realize they could become scientists, scientists are not aliens
- Teach some elements of astronomy

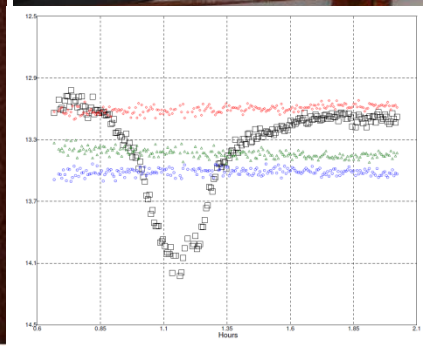
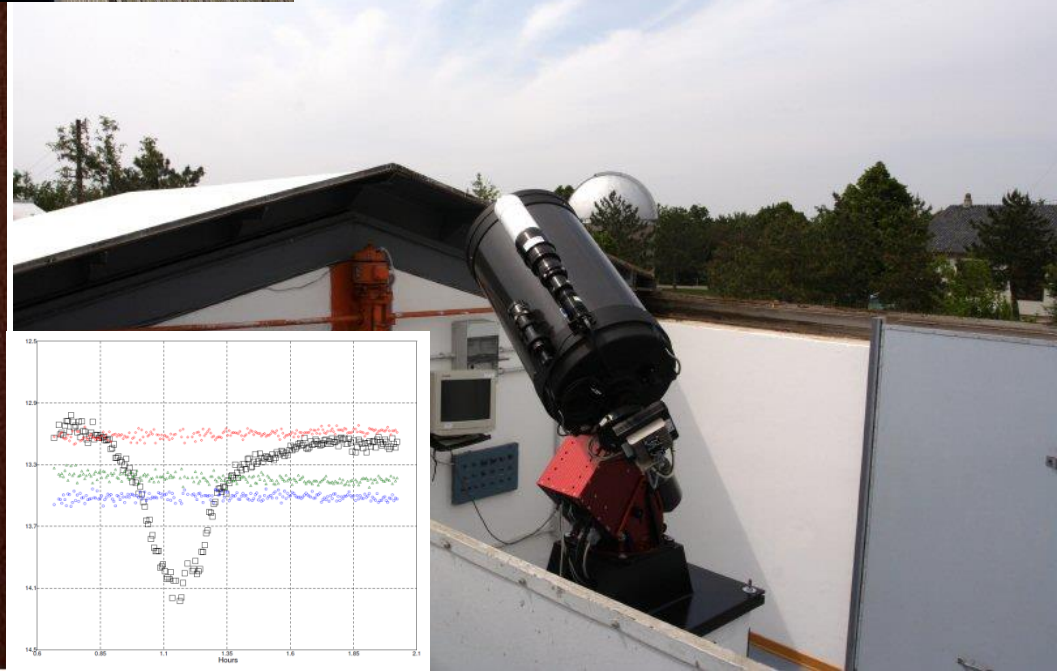
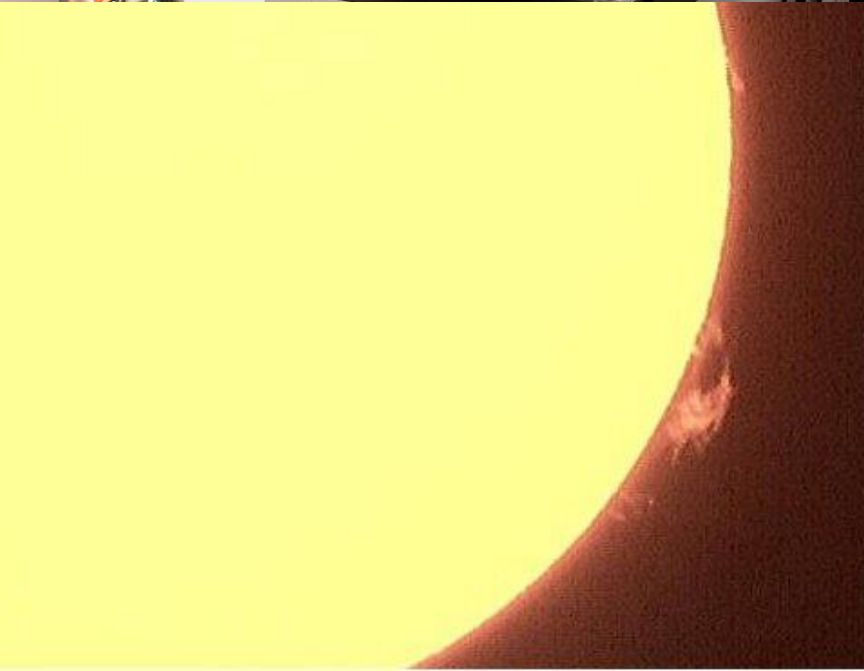
How (Euro-VO)

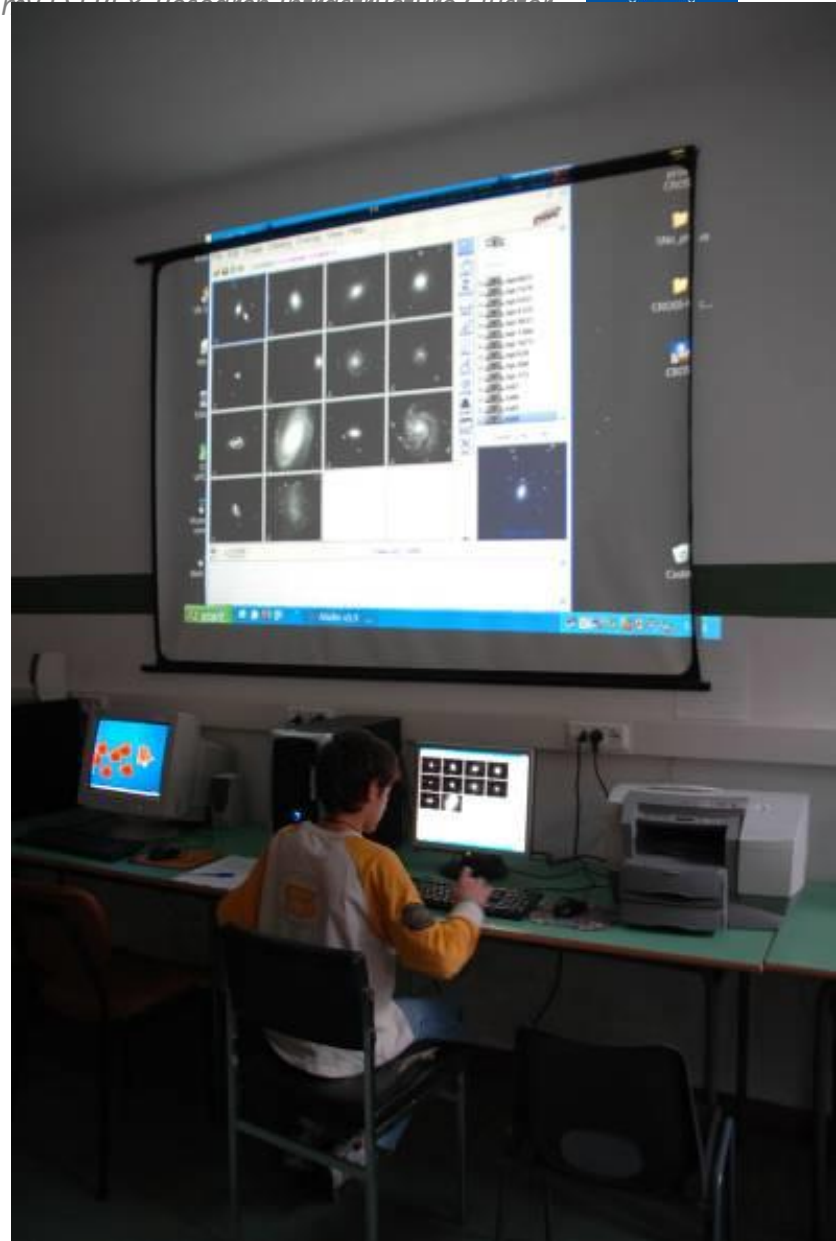
- Use VO resources
- Adapt/simplify key tools (with user's help)
- Provide a library of Use Cases
- Propose activities that mix “serious work” with “fun”
- Train teachers, engage students

Results

<http://vo-for-education.oats.inaf.it/>











FRI & Research Infrastructure Cluster
ASTERICS - 653477



Challenges

- Languages
- Ratio (astronomers engaged in edu)/(astronomers) $\ll 1$
Ratio (astronomers) / (students or teachers) $\lll 1$

e.g. In Italy, INAF

~ 1400 researchers, ~ 50 active in POE

~ 1600 highschoools with scientific curriculum

=> ~ 460,000 students

Astetrics: WP2 and citizen science

Def.: scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions

Martin, K.C. (2014), *New words notes June 2014*

Astetrics: WP2 and citizen science

A new adventure:

how to bring an astronomer's instrument in
classrooms

IVOA - EduIG

A two-way communication channel between the public and VO

Twiki page and mailing list: tools for sharing practices, materials, information, ideas, for finding or requesting help.

Edu IG activities

- VAPE: easy publication into VO of telescope data of amateur/educational organizations
(public → VO)
- SVN repository for Edu documents
<http://svn.ari.uni-heidelberg.de/svn/edu>
+ Registry (VO → public)
- PlanetC (public → VO)
 - Giorgio Calderone (post-doc@INAF),
Star Freedom Association
<https://github.com/gcalderone/PlanetC/wiki>

The PlanetC plugin

PlanetC (v0.1.0) State **Save** **Restore** Misc. **Pointer** **Mouse/keys** **Fullscreen** FPS = 21.2 Timer: 00:00:58 **Pause** **Reset**

Date 2016 / 5 / 11
 Time 14 : 12 : 55


NOW
 Time rate: 0x
 Stop x1 x10
 x100 x1,000 x10,000

Time shift
 Min Hour Day Year
 Sidereal


Planetarium
 Enable Reset view
 Clock Date
 Card. points Location

Misc. Constell. & DSO Stars Planets Meteor Satellites Grids Lines Settings

<input checked="" type="checkbox"/> Atmosph.	<input checked="" type="checkbox"/> Card. points	Lines	Names	<input checked="" type="checkbox"/> Enable	<input checked="" type="checkbox"/> Enable	Enable	Enable	Equatorial	Equator	PlanetC	View
<input checked="" type="checkbox"/> Ground	Prec. circles	Art	Boundary	Names	Names	Radiants	Names	Altaz	Meridian	Stellarium	Location
<input checked="" type="checkbox"/> Fog	Angle meas.	<input checked="" type="checkbox"/> DSO	DSO image	TwinkleX5	Orbits	RateX5000	Trails	Ecliptic	Ecliptic	Screenshot	Quit

Select User dir.
 FOV 
 Auto zoom in
Search Unselect
Eq. mount Track
Object Constellation Obj. Info

Solar
 Sun Mercury Venus
 Earth Moon Mars
 Jupiter Saturn Uranus



IVOA - EduIG

Is it possible to build a lasting resource?

How can we let educators/public find our resources on their own, not only through VO-schools and VO-days?