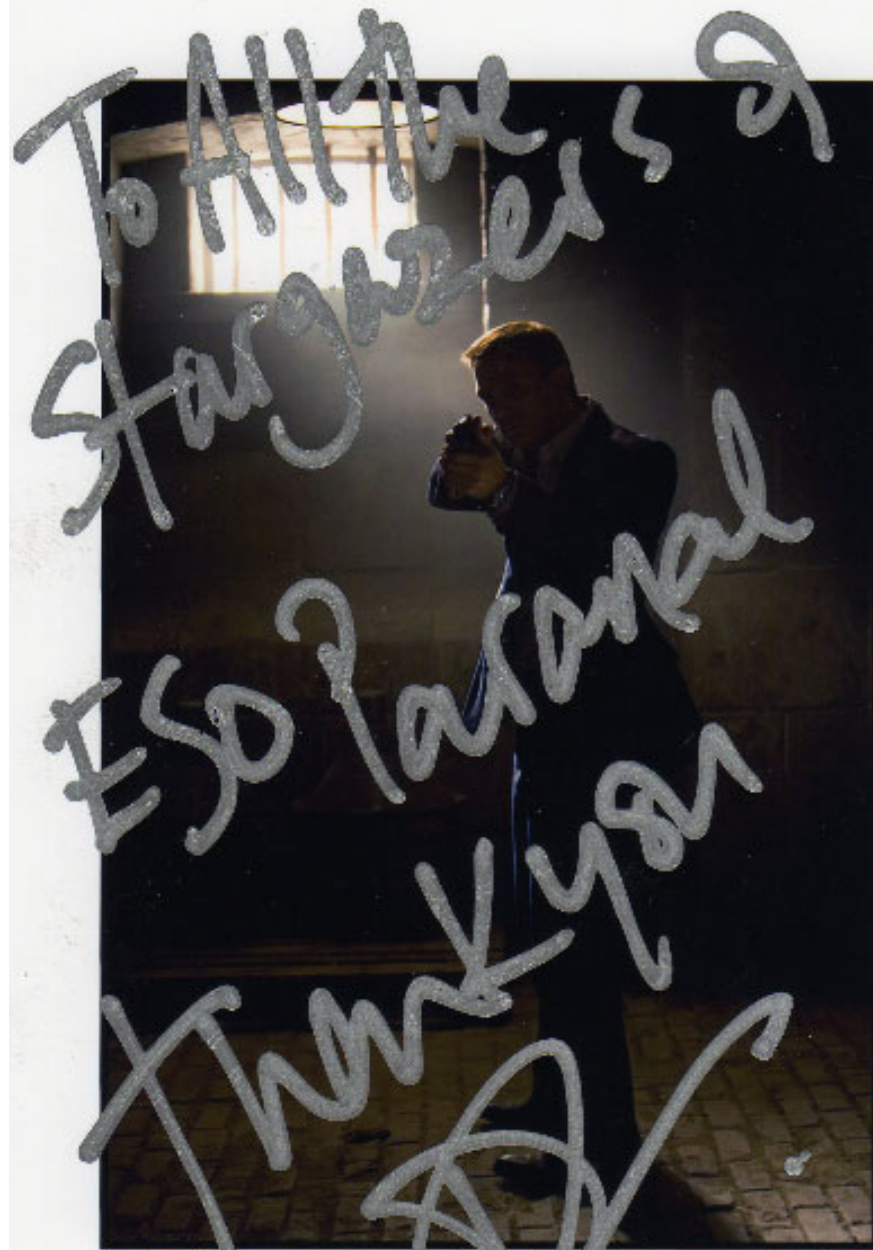


ST-ECF

Bob Fosbury

ESO news

- Tim de Zeeuw DG from September 2007
- Spain (06) and Czech Republic (07) new members 
- Major projects:
 - VLT/VLTI and new generation of instruments
 - ALMA (and APEX)
 - Survey telescopes VST + VISTA on Paranal
 - 42m E-ELT design studies/phase B (~M€ 90)



QUANTUM OF
SOLACE
7th

ST-ECF tasks

- Hubble project
 - Slitless spectroscopy support (NICMOS, ACS, WFC3): simulator, calibration, extraction s/w, user support, science
 - Hubble Legacy Archive: high-level data products in collaboration with STScI and CADAC
 - PSF modelling (TinyTim for WFC3)

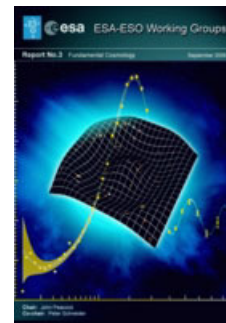
- European public outreach
 - News/photo releases
 - Hubblecasts
 - Host for IAU & IYA2009 activities
- ESA-ESO coordination
 - Topical Working Groups
 - Current: Galactic Structure (C Turon)



11 April 2008

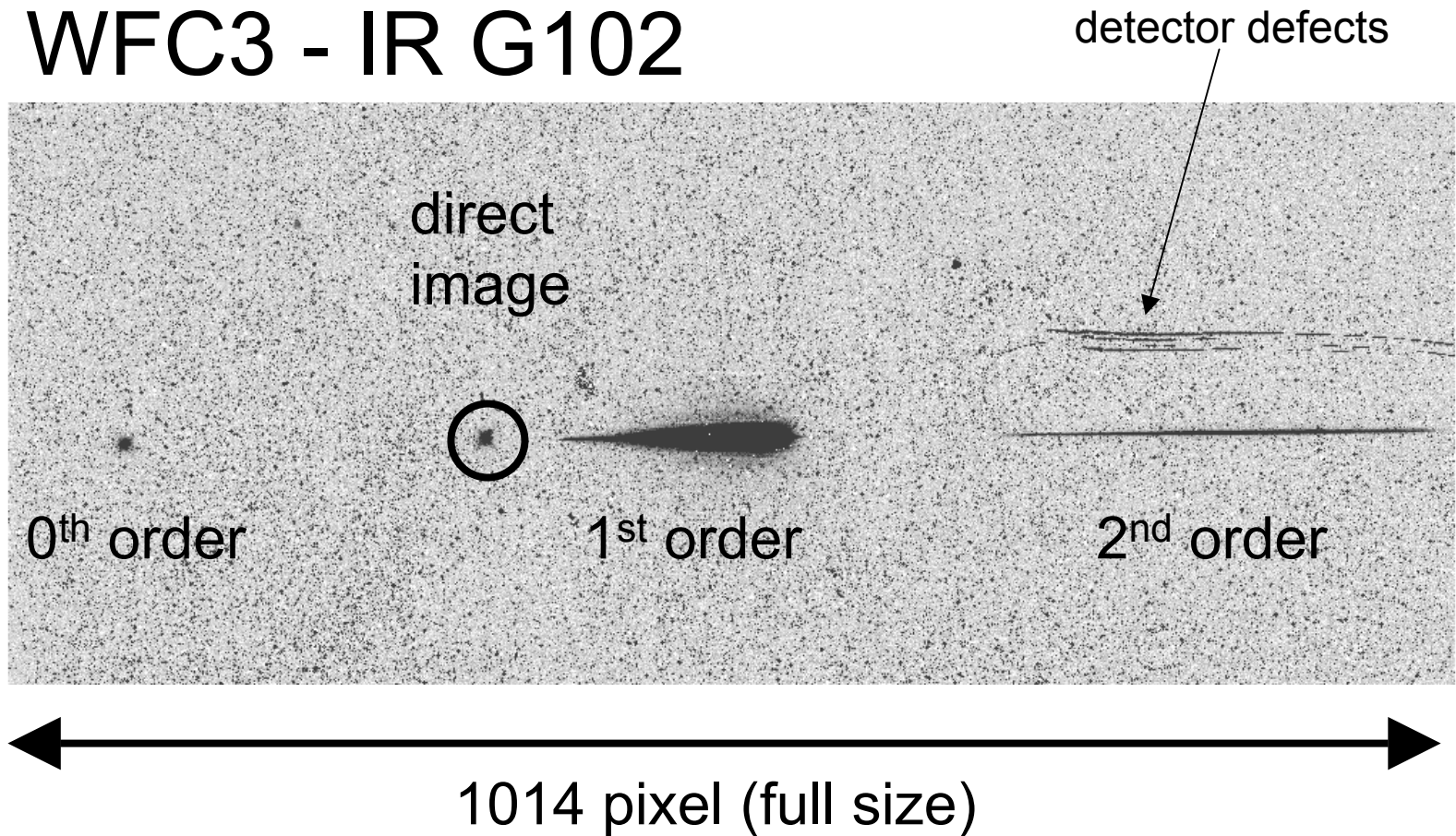


STUC



Highlights

WFC3 - IR G102



WFC3 grism modes

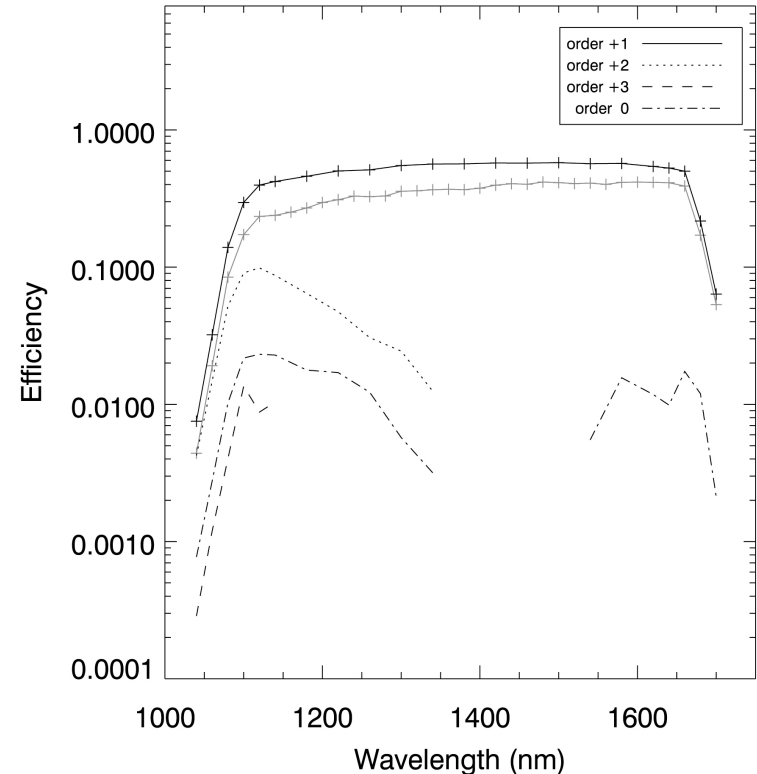
- High scientific expectations for the IR grisms
 - Flat, high QE spectral response => high photometric quality spectra
 - Unique opportunities for very high z detections in spectral regions not accessible from the ground

WFC3 activities

- Support for WFC3 slitless modes
- UVIS: G280 grism
- IR: G102 and G141 gratings
- Spectrum trace, dispersion and sensitivity determined in Thermal Vacuum 2 testing (summer 2007)
- Collaborating on TV3 with flight detectors
- Development of imaging and slitless spectroscopy simulator aXeSIM
- aXeSIM both a Pyraf package and simplified web based version – already extensively used in Phase I



WFC3/IR G141 (TV3 Mar 2008)

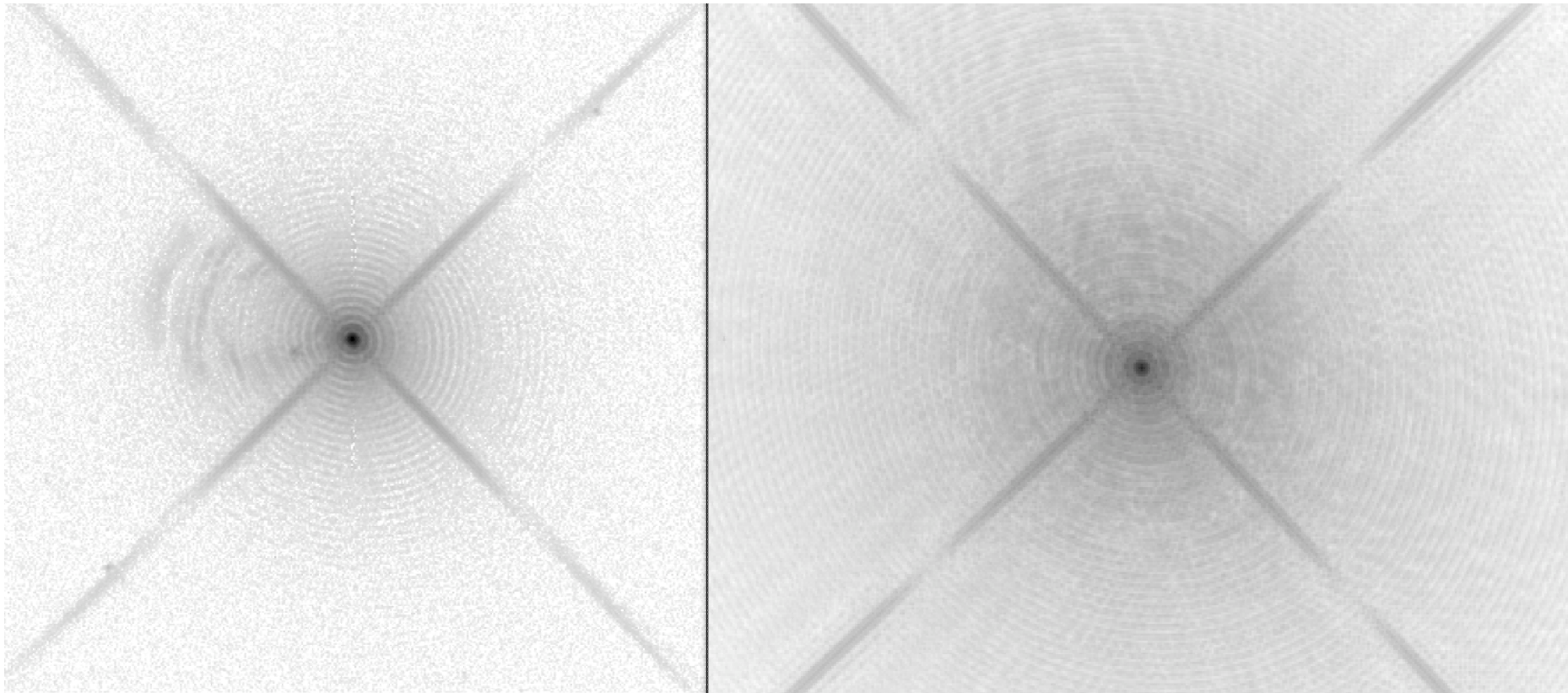


WFC3 Tiny Tim

- ST-ECF has agreed with STScI WFC3 team to provide a version of Tiny Tim for WFC3 UVIS and IR channels by June 1: in time for Phase II
- John Krist, author of Tiny Tim, is supporting the work
- A preliminary version has been completed that includes the following for WFC3:
 - field-dependent aberrations from optical modelling (from George Hartig)
 - initial geometric distortions from optical modelling (from Colin Cox)
 - initial estimates of UVIS channel charge diffusion, from thermal vacuum measurements (from George Hartig)
 - all the WFC3 filter curves
- An experimental web interface is under development

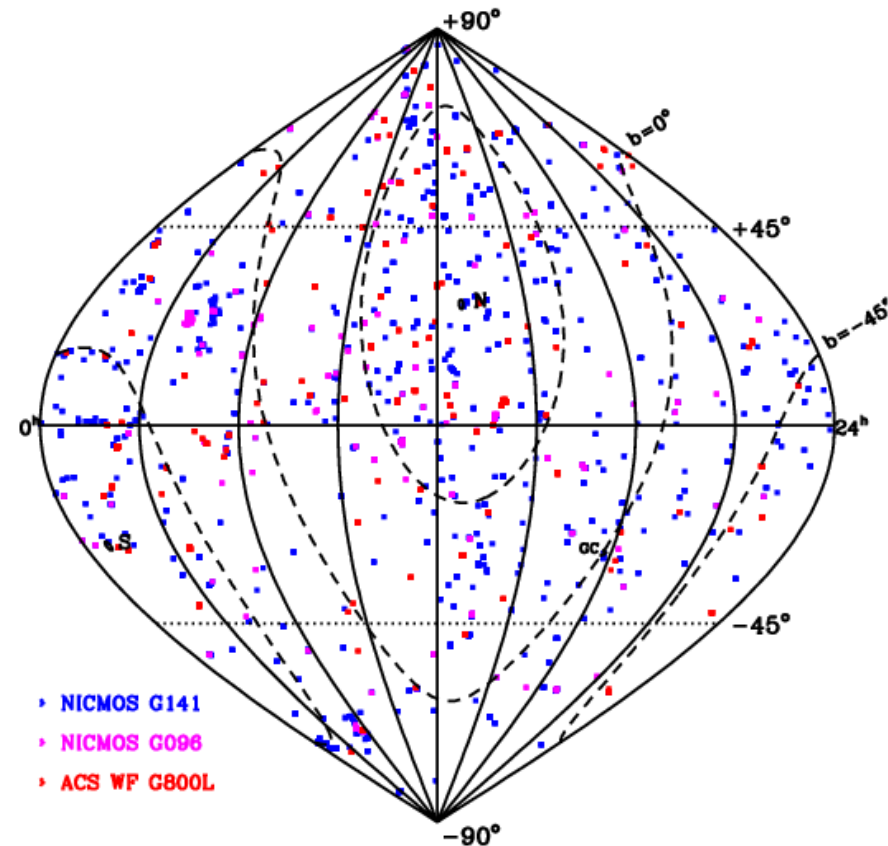
*TV1+CASTLE image of WFC3/UVIS with
633nm monochromatic illumination*

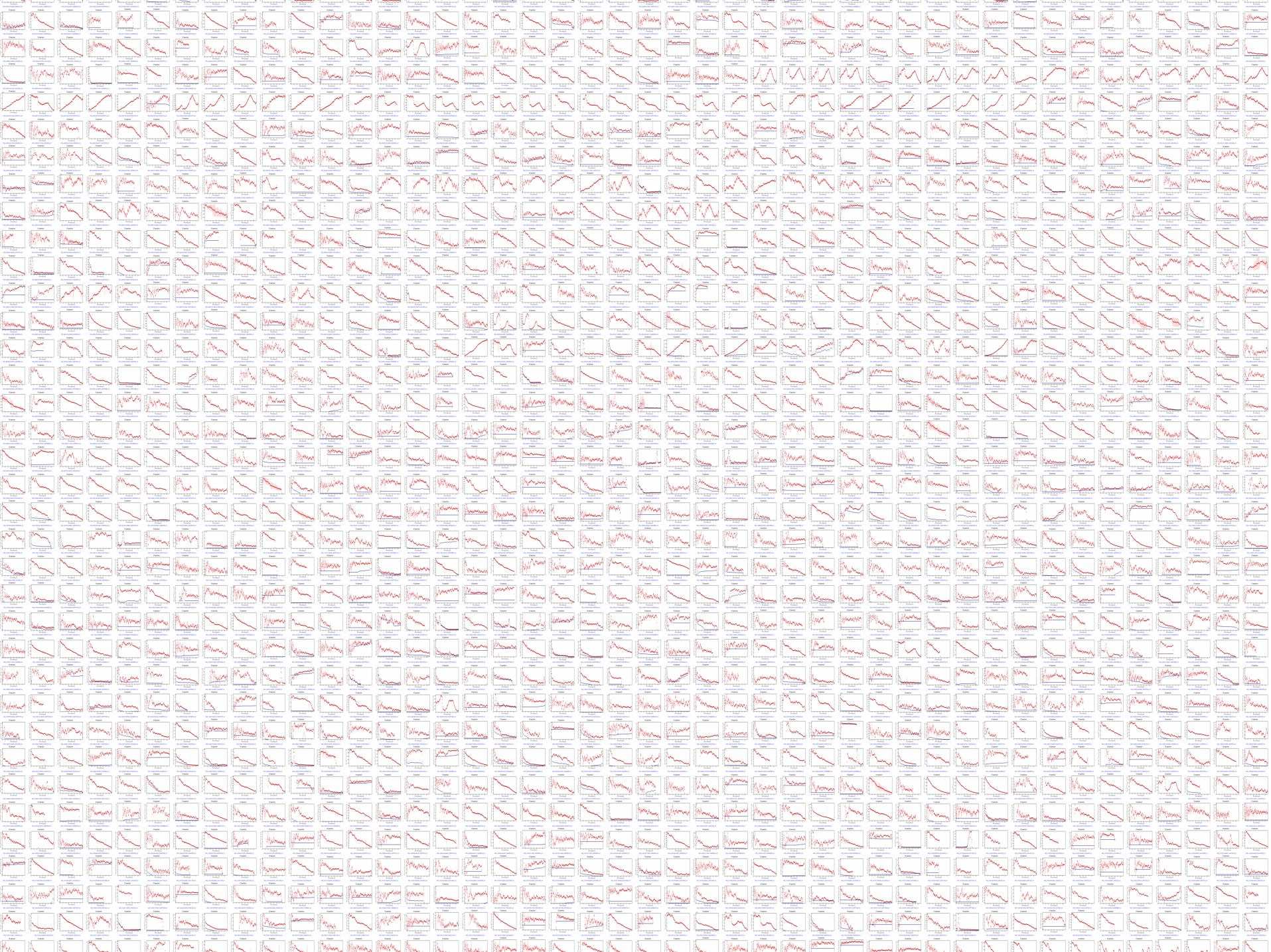
Tiny Tim preliminary PSF



Hubble Legacy Archive

- Collaboration of ST-ECF, STScI + CADC to deliver new high-level data products via intuitive interfaces
- STScI/CADC concentrate on images
- ST-ECF concentrates on slitless spectra
- Pilot project with NICMOS grism G141 grism data
- *Next:* ACS grism spectra
- *Longterm:* WFC3 grisms

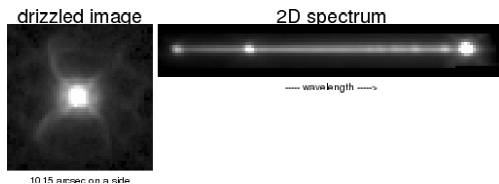
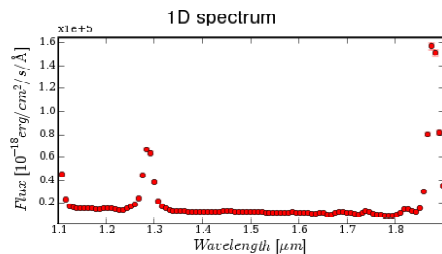




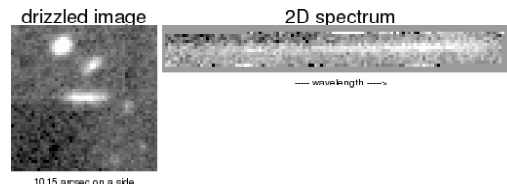
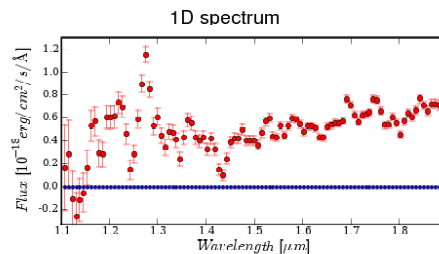
HLA DR#1

- Released 8 February 2008
- Extracted spectra from about 80% of the in-focus grism NICMOS G141 pointing until Aug 2007
- About 50% of detected objects extracted
- About 2500 spectra
- Data served via VO SSAP server, support for ESO VIRGO tool
- Also available via web interface + STScI web site

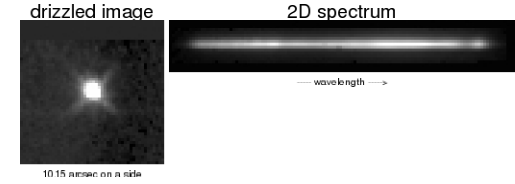
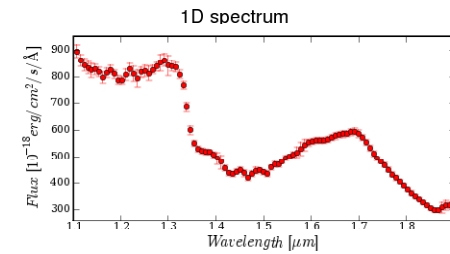
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ESA/Hubble outreach

- Hubble news and images
 - Collaboration with STScI and network of image processors
 - ~ half *Hubble Heritage* images produced @ ST-ECF
- Attract the young generation (-y)
 - New media, eg. *HD Hubblecast*
 - *iTunes* 2007 “Top 25” (all categories)
- Establishment of communication community network
 - Conferences/CAP journal/IAU C55
- Worldwide efforts for IYA2009
 - IAU and IYA 2009 secretariats at



Future

- Close at end of 2010
- Concerns
 - Staff redeployment in ESO/ESA
 - Maintenance of European HST archive (at ESO?)
 - Ingest of post-SM4 data
 - HLA collaboration continuation
 - Continuation of 'essential functions' e.g.,
 - User support for slitless modes
 - Logistics of European committee/panel membership
 - European HST and JWST outreach
- Next ST-ECF Annual Review, 28/29 April