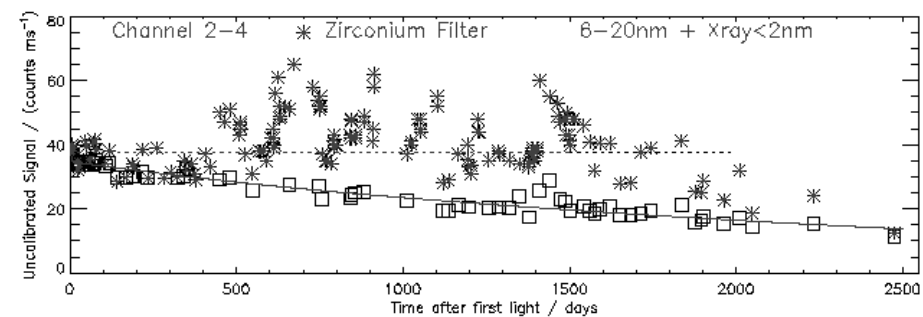
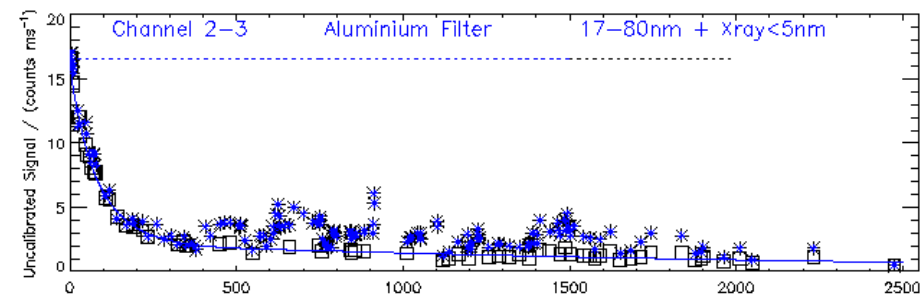
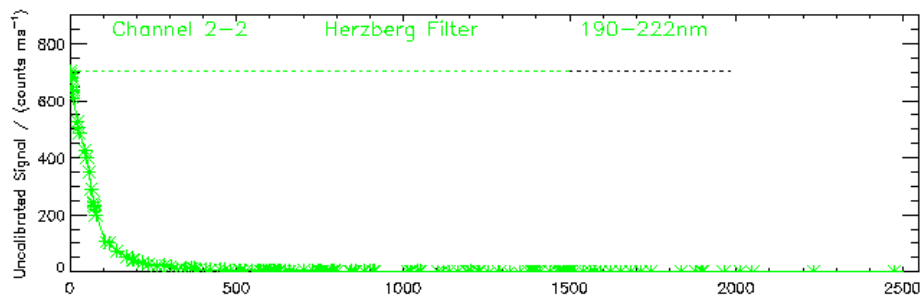
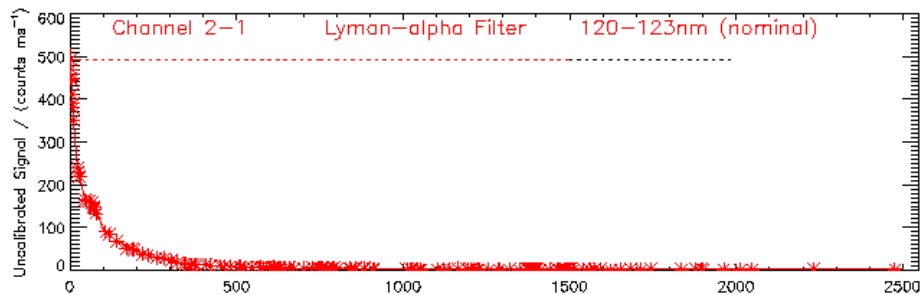




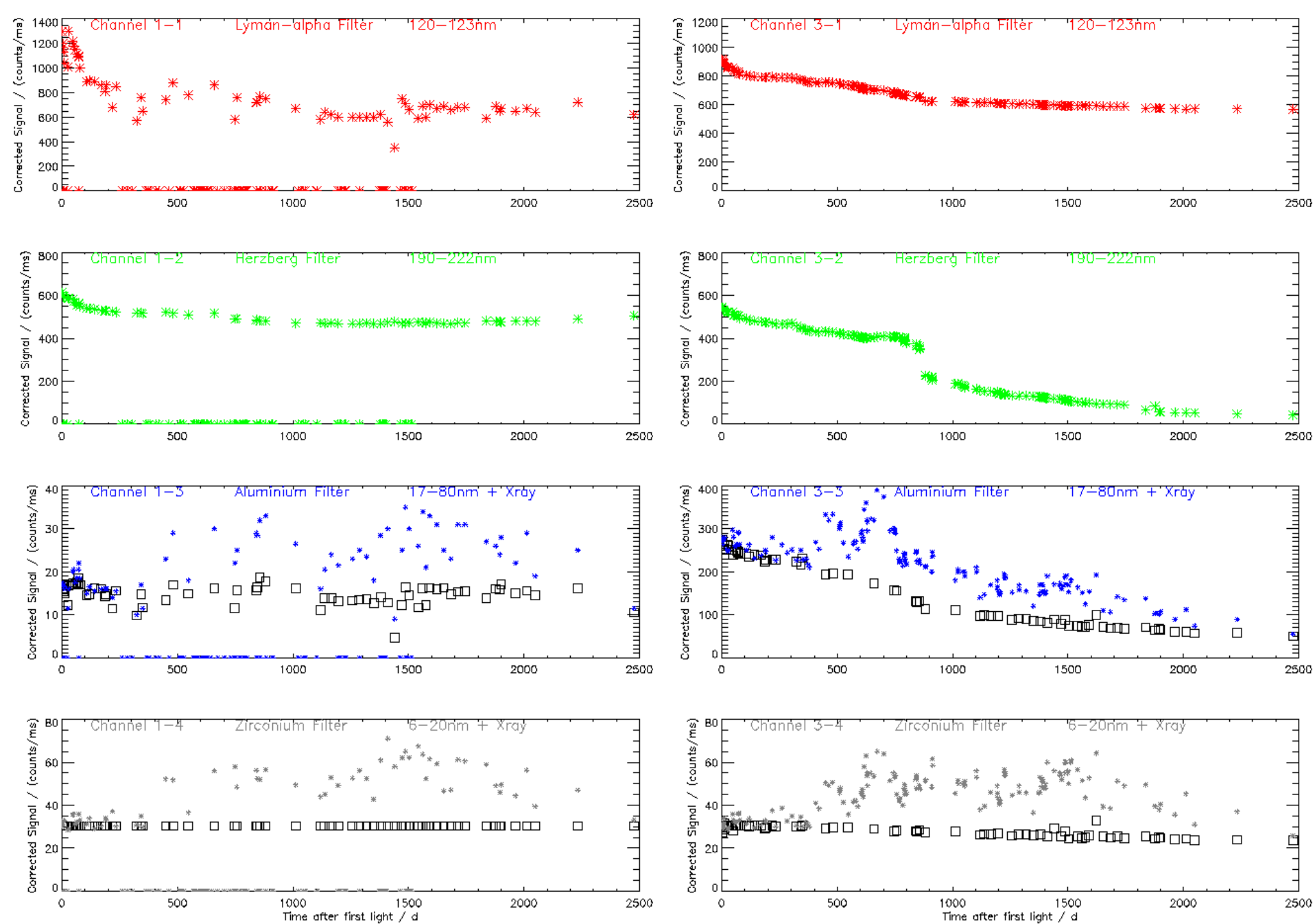
LYRA status update

I. E. Dammasch, M. Dominique, T. Katsiyannis,
L. Wauters

Instrument health



- Degradation by UV-polymerization of carbon molecules
- Dirt film on filter surface
- Worst between 20 nm and 500nm
- SXR and IR less effected



Remarks: ch *-3 and *-4 scaled by 1-4 (non degraded), saturation problem MSM, open door problem unit 3, IR problem ch 3-1



Degradation

□ Status on February 15, 2016

Channel	Remaining signal
Unit 1	
Channel 1-1	62%
Channel 1-2	75%
Channel 1-3	100%
Channel 1-4	100%

Channel	Remaining signal
Unit 2	
Channel 2-1	0.6%
Channel 2-2	0.03%
Channel 2-3	3%
Channel 2-4	30%

Channel	Remaining signal
Unit 3	
Channel 3-1	61%
Channel 3-2	9%
Channel 3-3	19%
Channel 3-4	71%

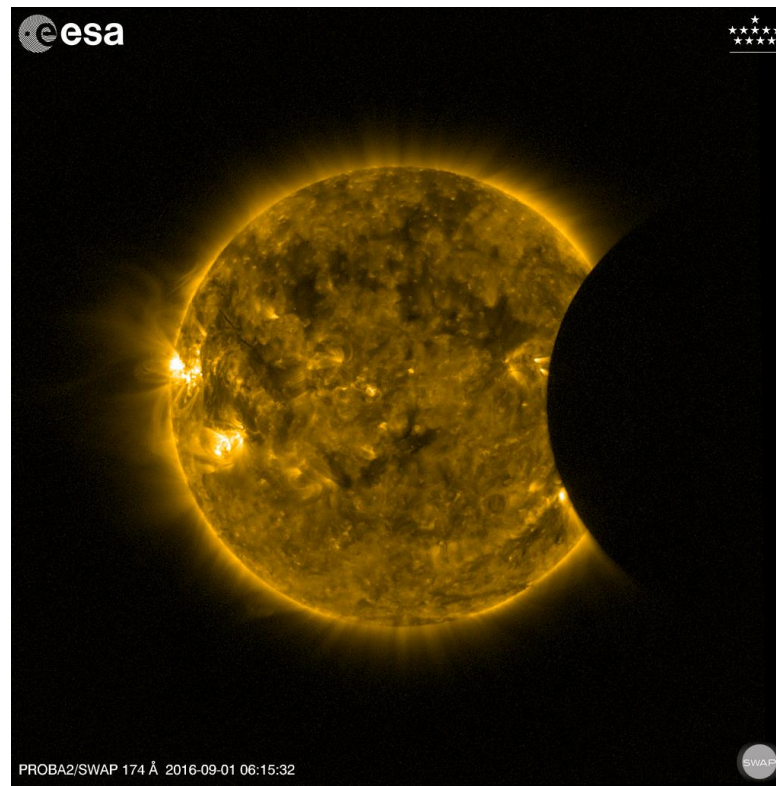
=> Slow evolution

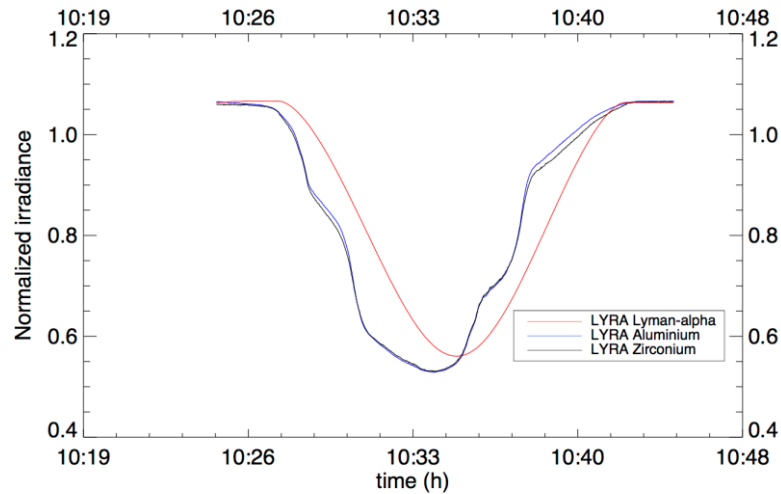
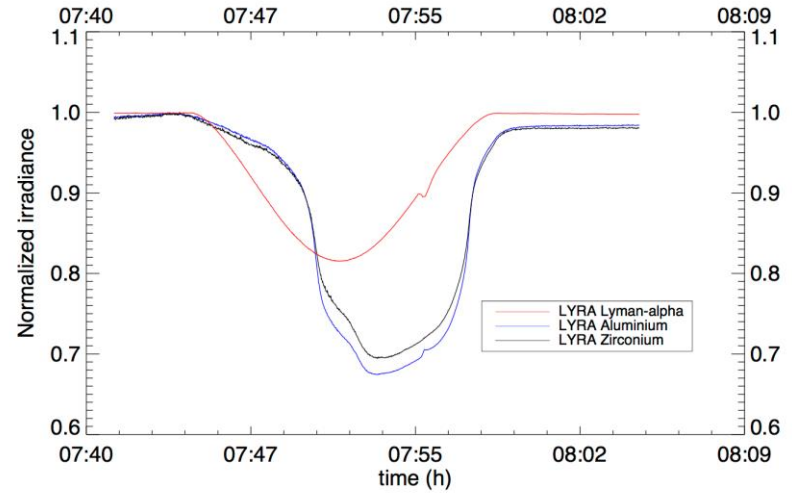
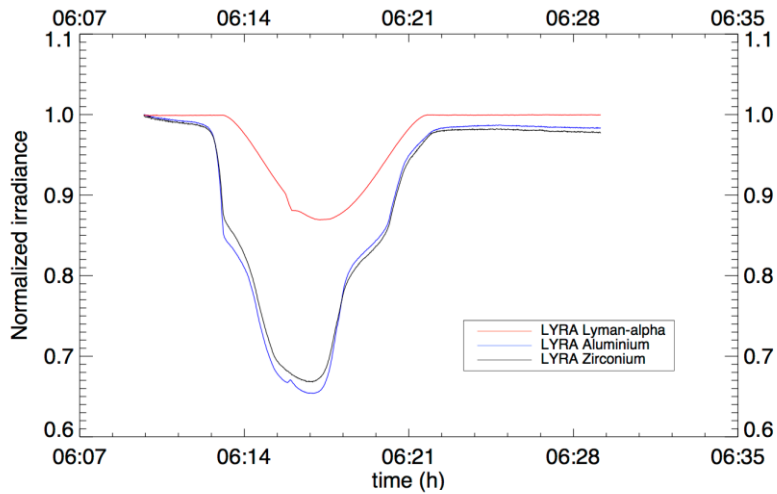
Latest results



Eclipse observation

- EUV curves more irregular than UV curve(s)
- Importance of active regions in EUV
- Lyman-alpha channel more uniform, Sun more homogeneous
- No Herzberg signal due to problems during eclipse



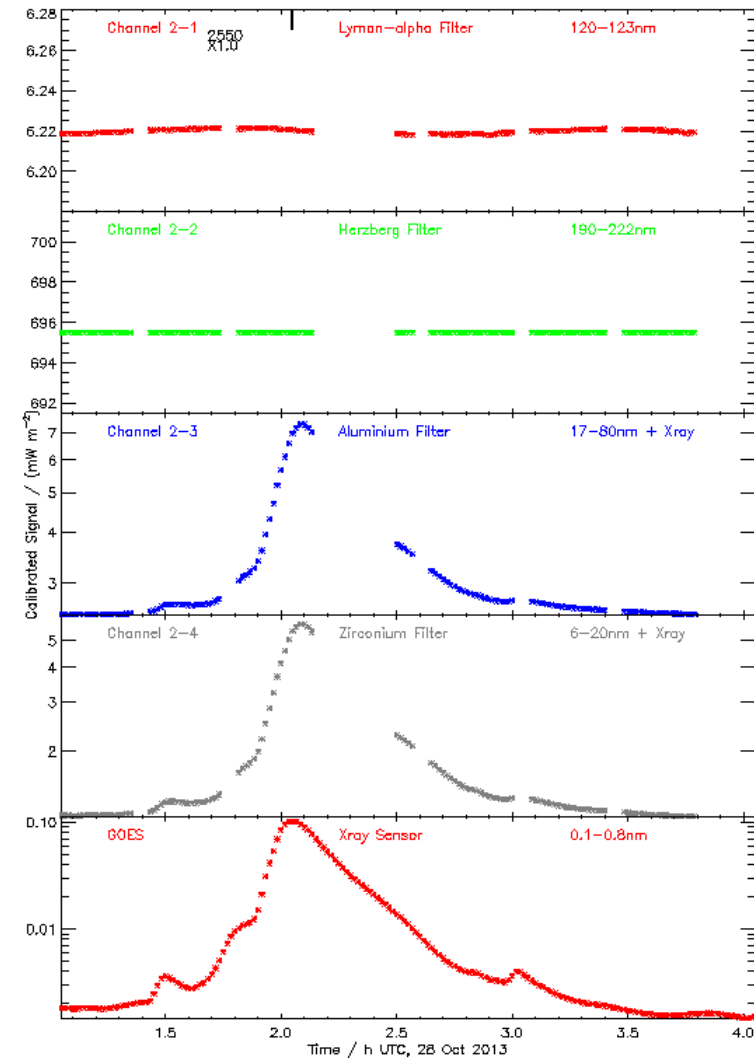


**Observations with
LYRA unit3**



QPP observations

- ❑ Recent paper on quasi-periodic pulsations, using LYRA data
- ❑ Compares QPP in several wavelength ranges
- ❑ Impulsive and decaying part of X1 flare, 28 Oct 2013
- ❑ Publication was result of guest investigator visit



(1 minute averages)



Quasi-Periodic Pulsations

□ Hayes et al., ApJL, 2016 (Guest Investigator)

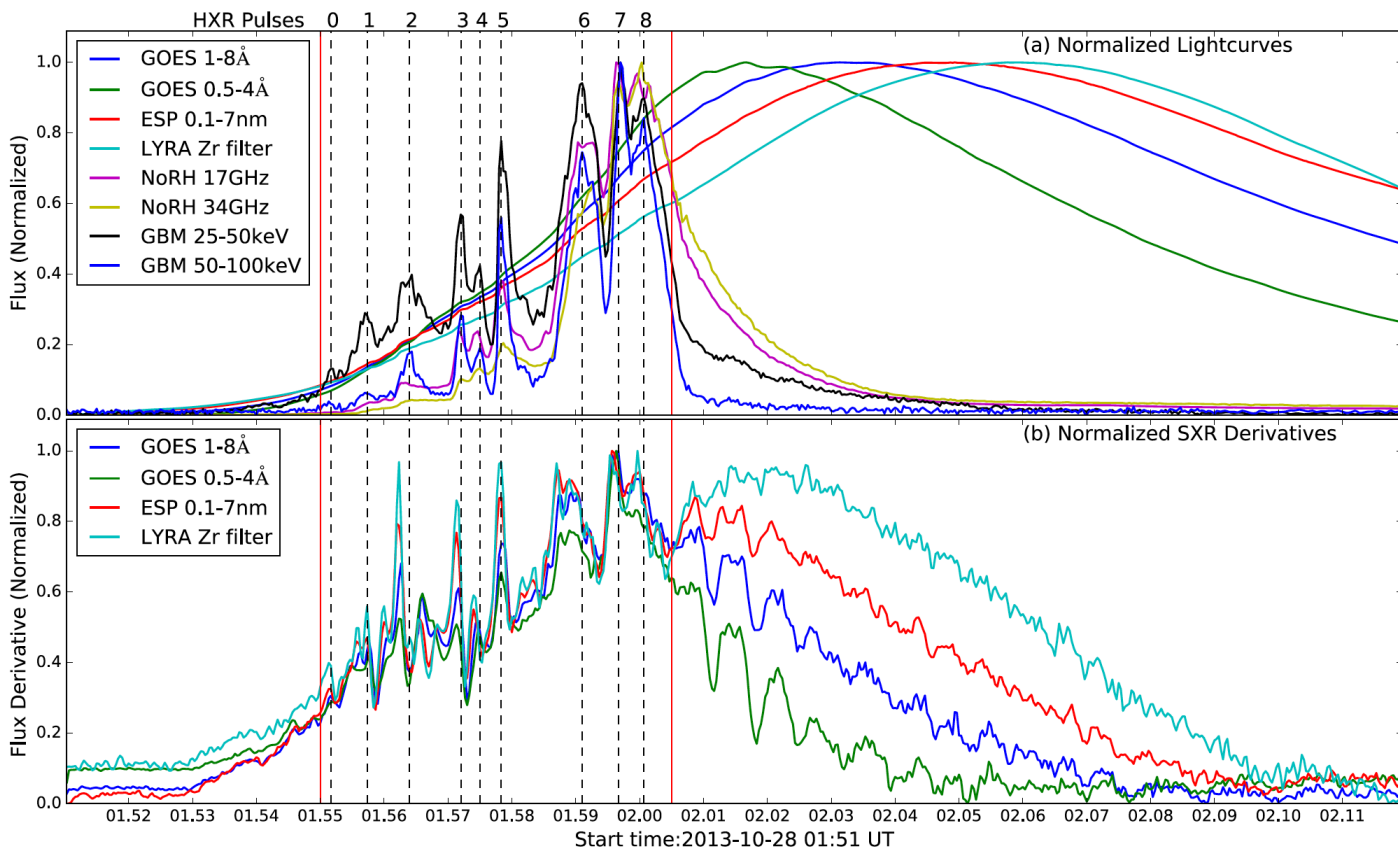


Figure 1. (a) Normalized light curves from different instruments for the flare of 2013 October 28. Detector Na 16 was used for GBM. (b) Derivatives of the soft X-ray channels. The vertical red lines show the start and end of the impulsive phase, and the dashed lines show the timing of the HXR pulses.

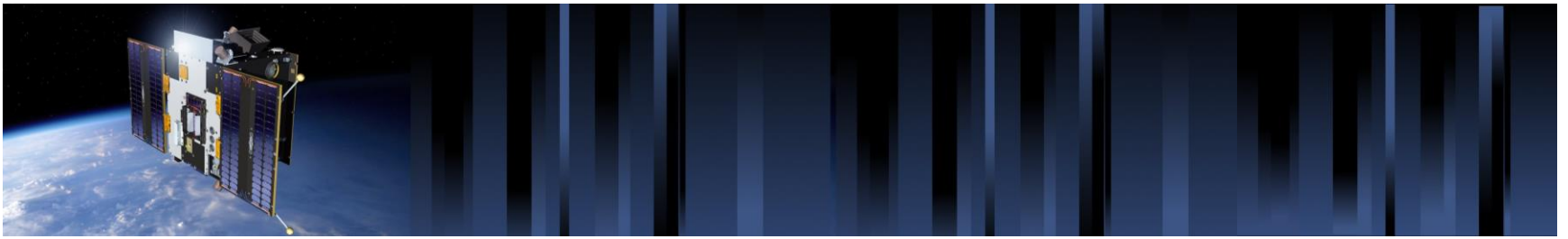


Latest news



In brief ...

- ❑ Mission extension on-going: extension for 2017-2018 should be granted, two more years are being requested.



THANKS!



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Academy of Science

