



Review of SVOM VT Performance

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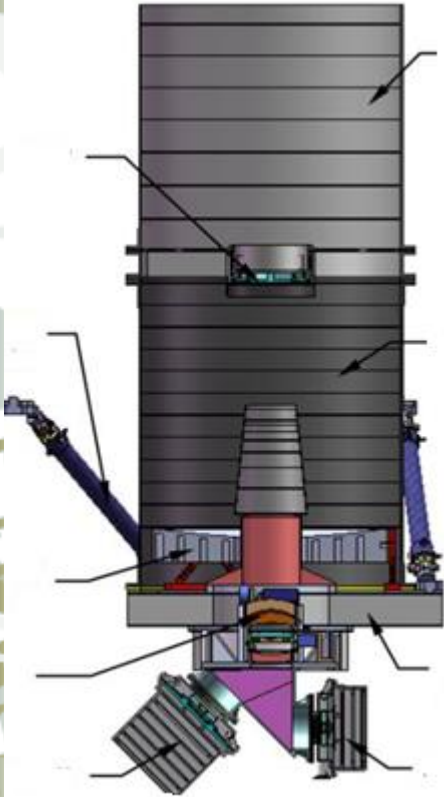
On behalf of NAOC SVOM Team



overview of the instrumental concept



- Diameter : **40cm** ; Focal Length: **360cm**
- FOV: **26'x26'**
- Encircled energy : **80%** and **70%** within the radius of 0.77aresec in blue and red channels, respectively.
- Two channels: **400 – 650 nm**(blue); **650 – 1000 nm**(red)
- CCDs for two channels :
 - ✓ **2kx2k, 13.5 μm** for both CCDs
 - ✓ **Cooling temperatures: -65C** (blue) and **-75C** (red)
 - ✓ **blue** : thinned CCD, QE **~90%** at 600nm cooling
 - ✓ **Red** : deep depletion CCD, QE **> 50%** at 900nm)





Expected scientific performances of the instrument



- **limiting magnitude is about 22.5 (Mv) for an integration time of 300 seconds.**
- **Localization accuracy is better than $0''.5$.**
- **High redshift GRBs detections, due to the high sensitive of the detection around 950nm, which is corresponds to redshift of 6.5.**
- **Double channels enable VT can promptly provide the redshift indicators**
- **Provide prompt detections and the candidates of high redshift GRBs to world wide astronomical community with the capabilities of data processing on board and the further data processing on ground,**



scientific data provided by the instrument



✓ **Prompt data (VHF)**

- **Attitude Chart** : to provide the accurate pointing reference
- **Finding Chart**: detections/ upper limit of optical afterglows, redshift indicators, rough light curves in two bands

✓ **X-band data**

- **Refined detection**
- **Refined localizations, redshift**
- **refined light curves (~1 day)**



谢谢！

Merci pour votre attentions!