



**The X-ray spectra from the shock  
and the SSS:  
Two laboratories in one observation**

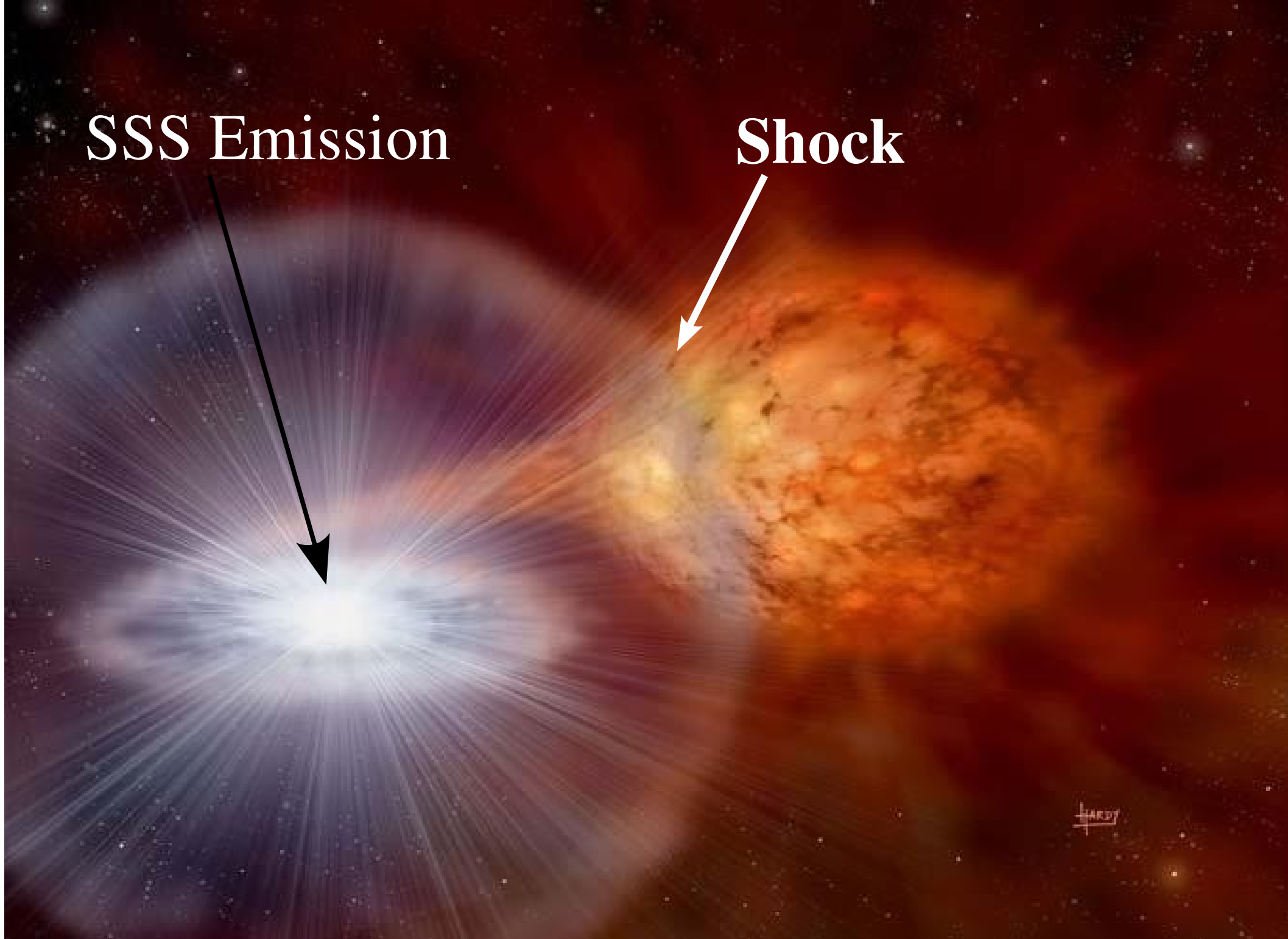
**Jan-Uwe Ness**

*Chandra Fellow*

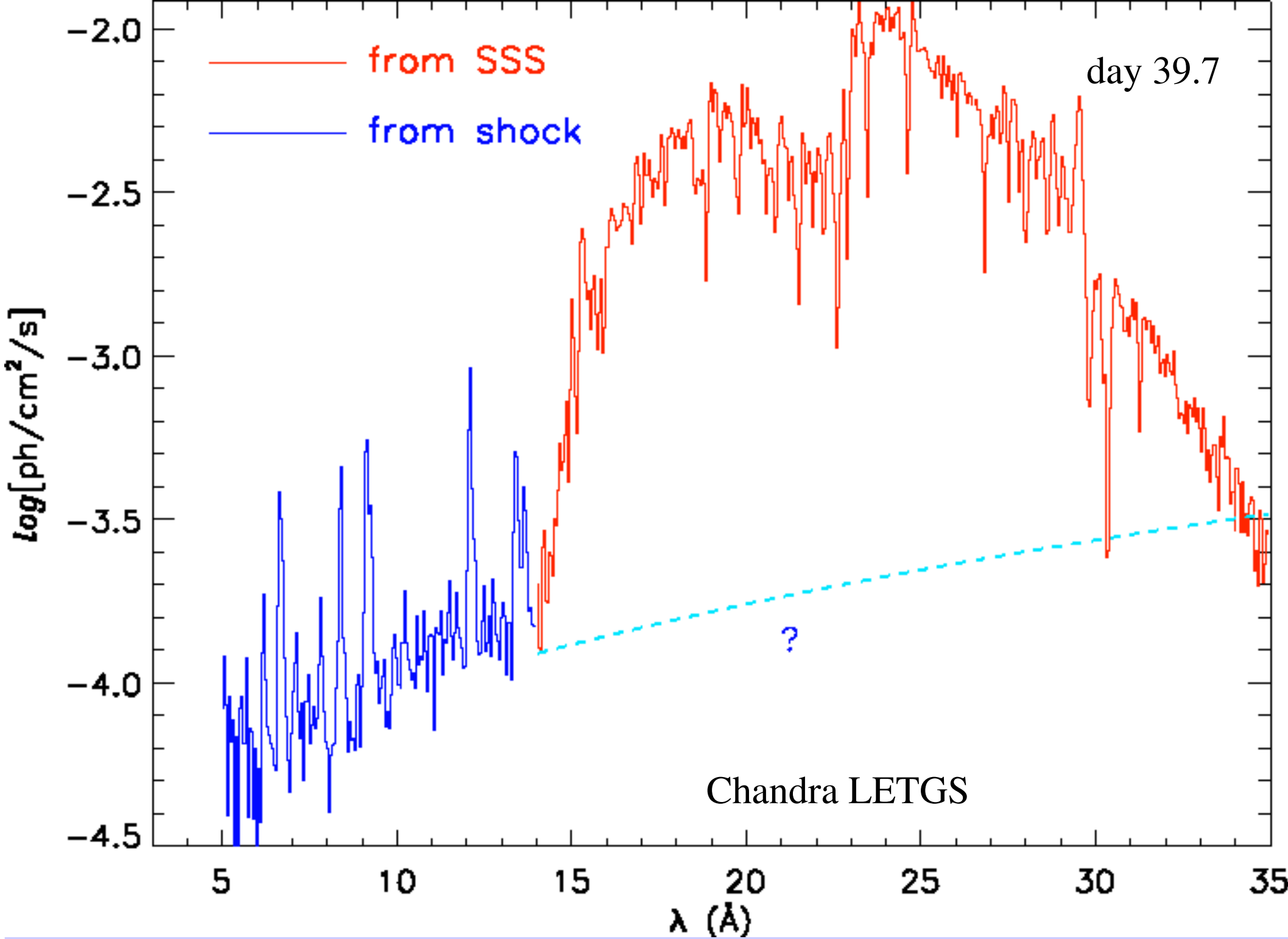


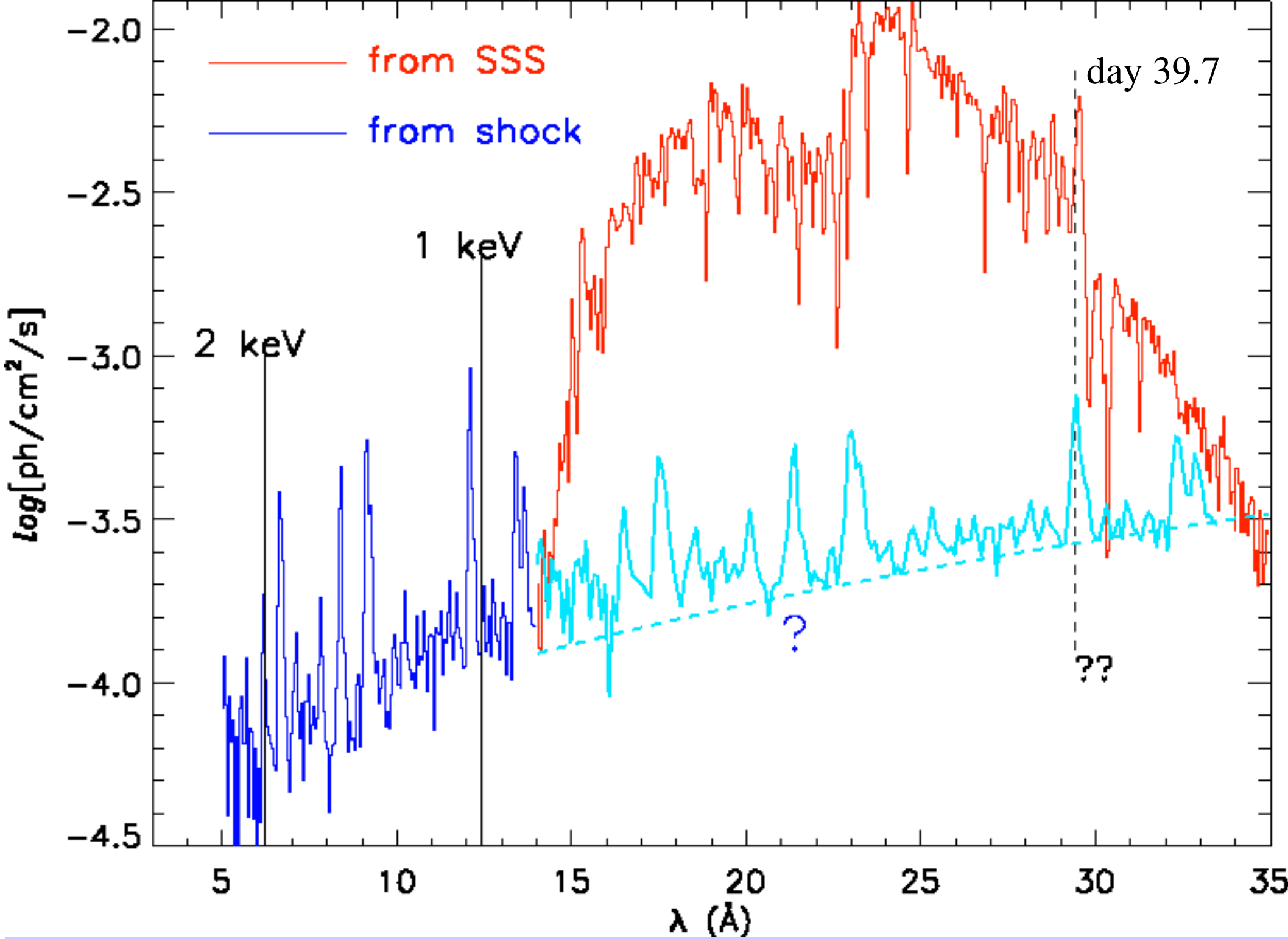
**SSS Emission**

**Shock**

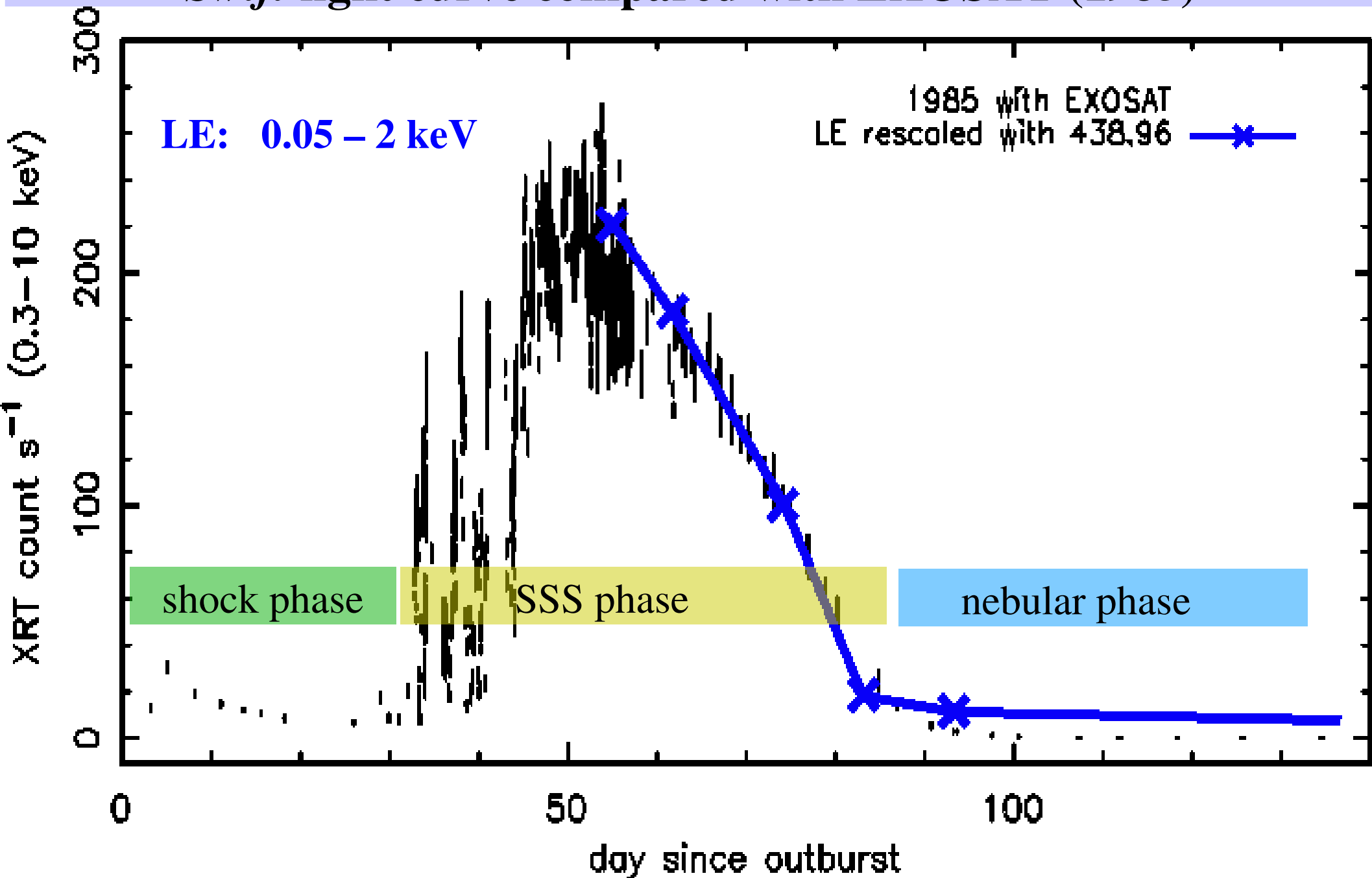


HARDY

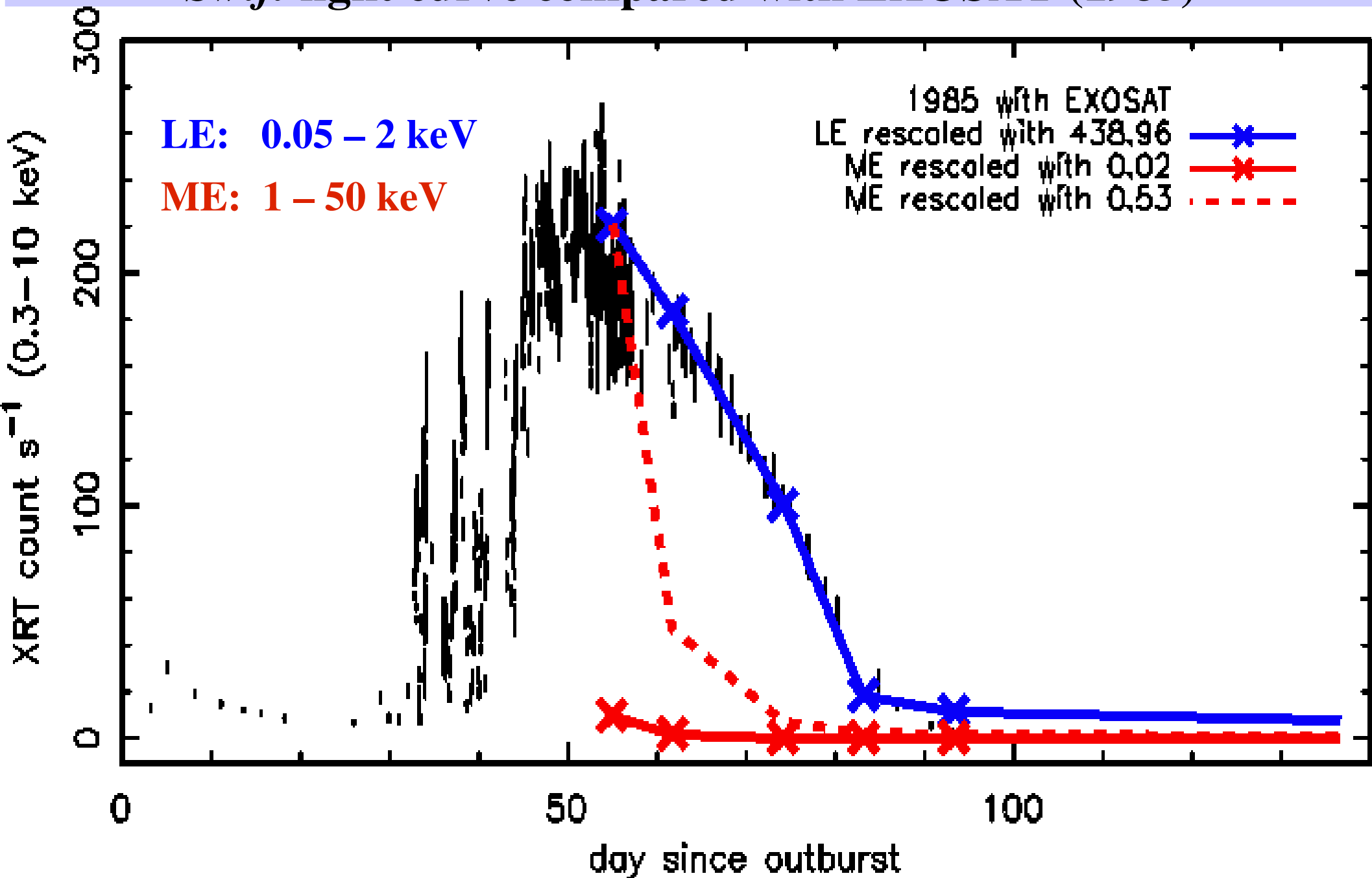




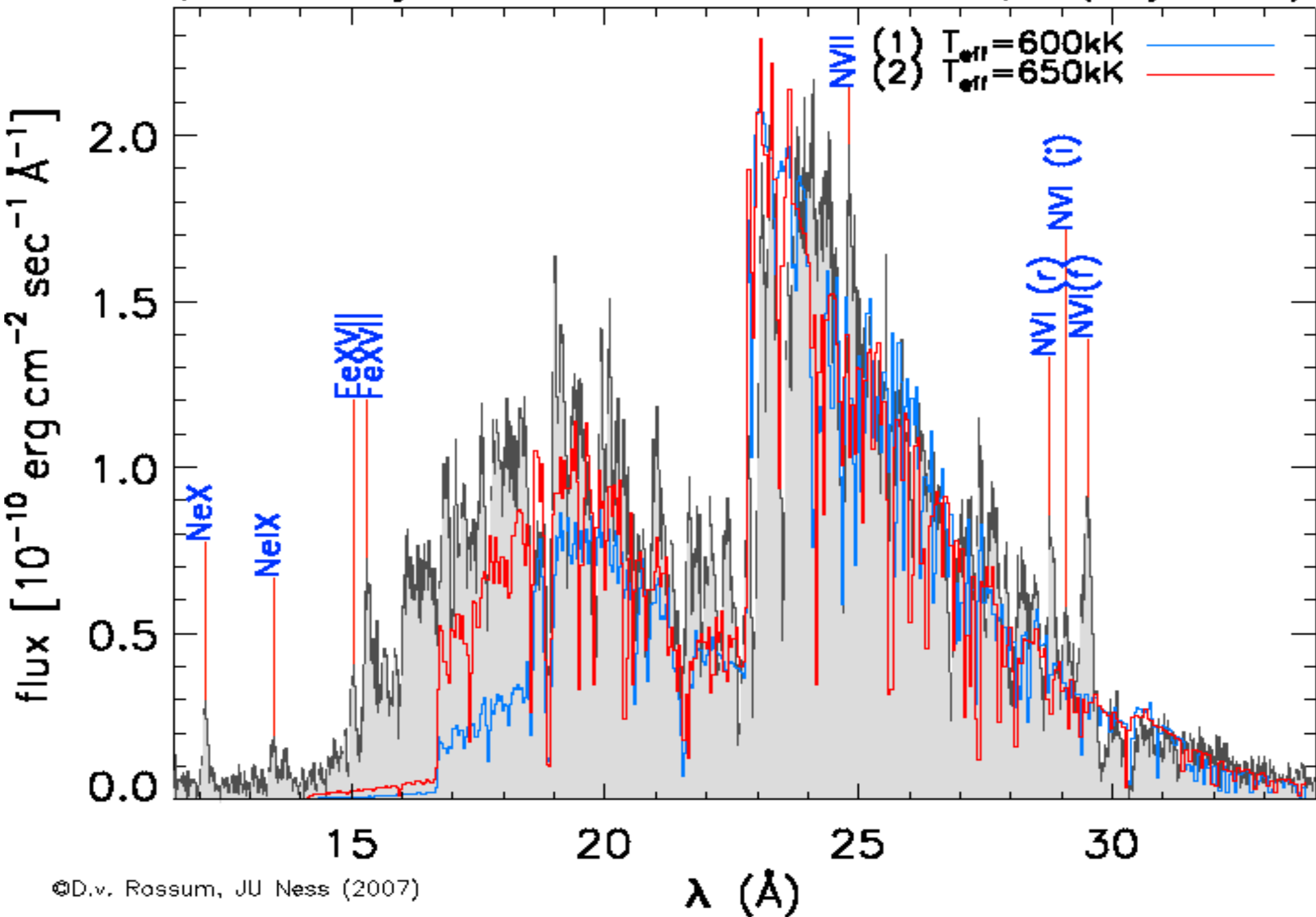
# Swift light curve compared with EXOSAT (1985)



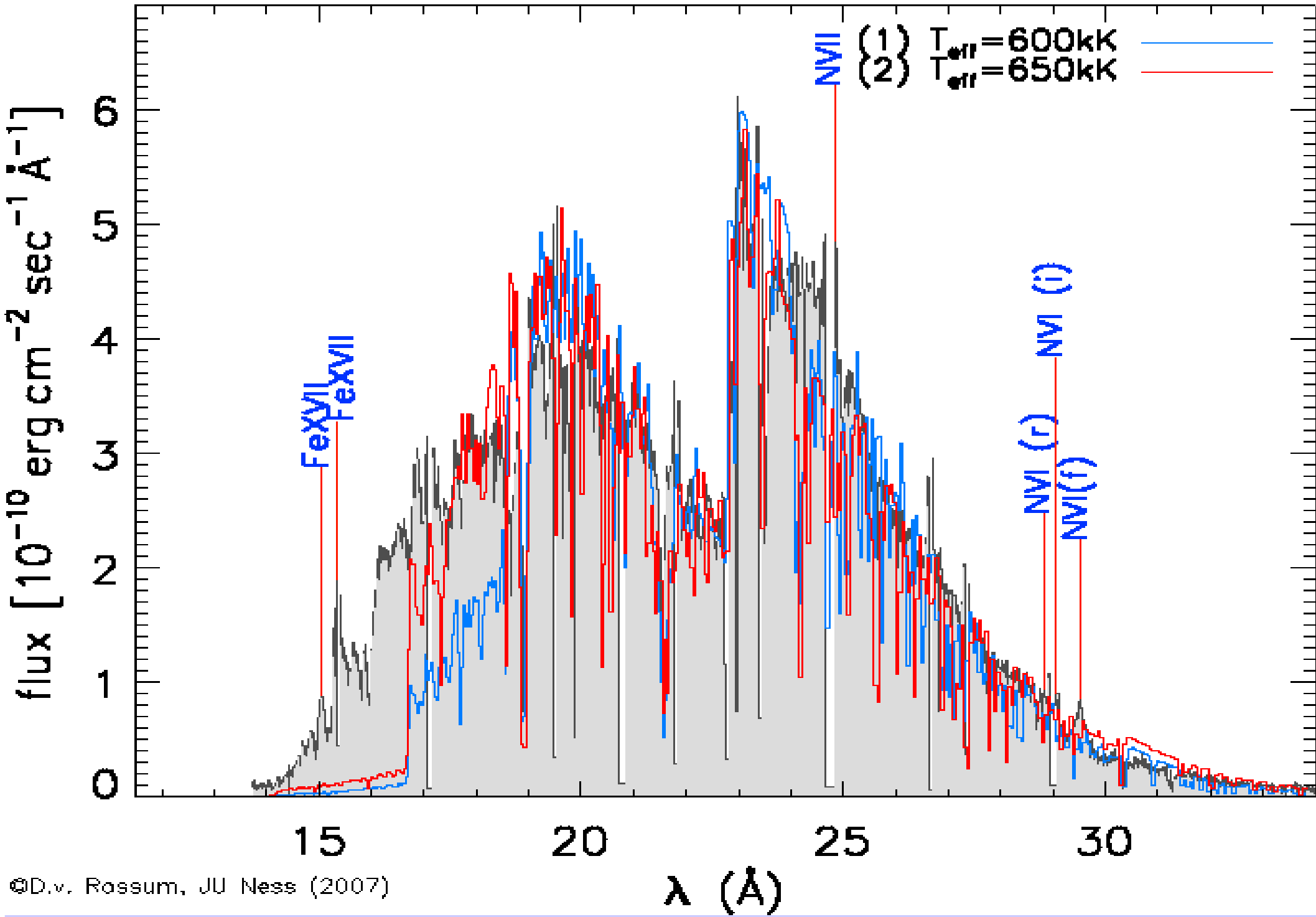
# Swift light curve compared with EXOSAT (1985)



preliminary PHOENIX models for RS Oph (day 39.7)

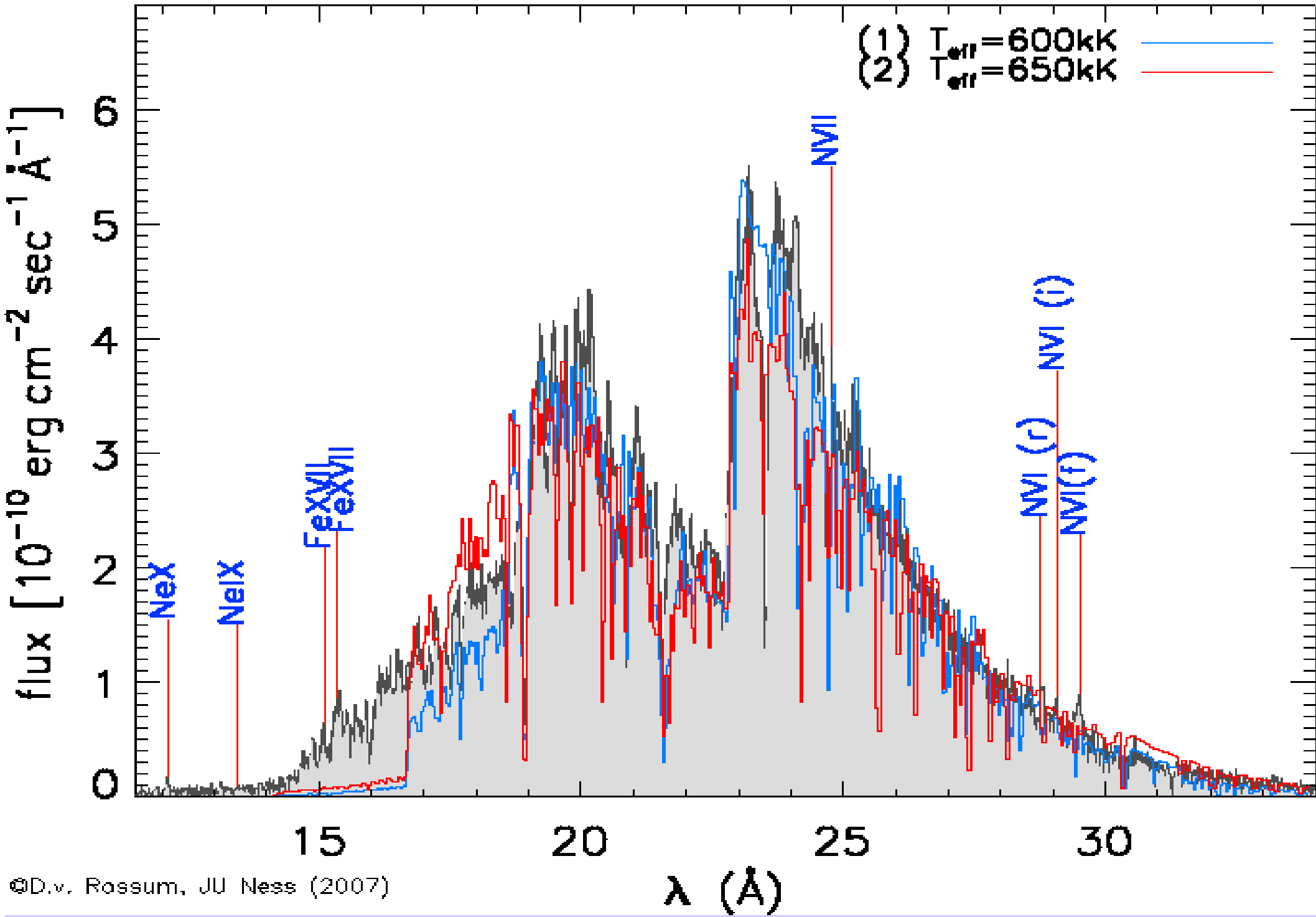


# preliminary PHOENIX models for RS Oph (day 54.0)





# preliminary PHOENIX models for RS Oph (day 66.9)



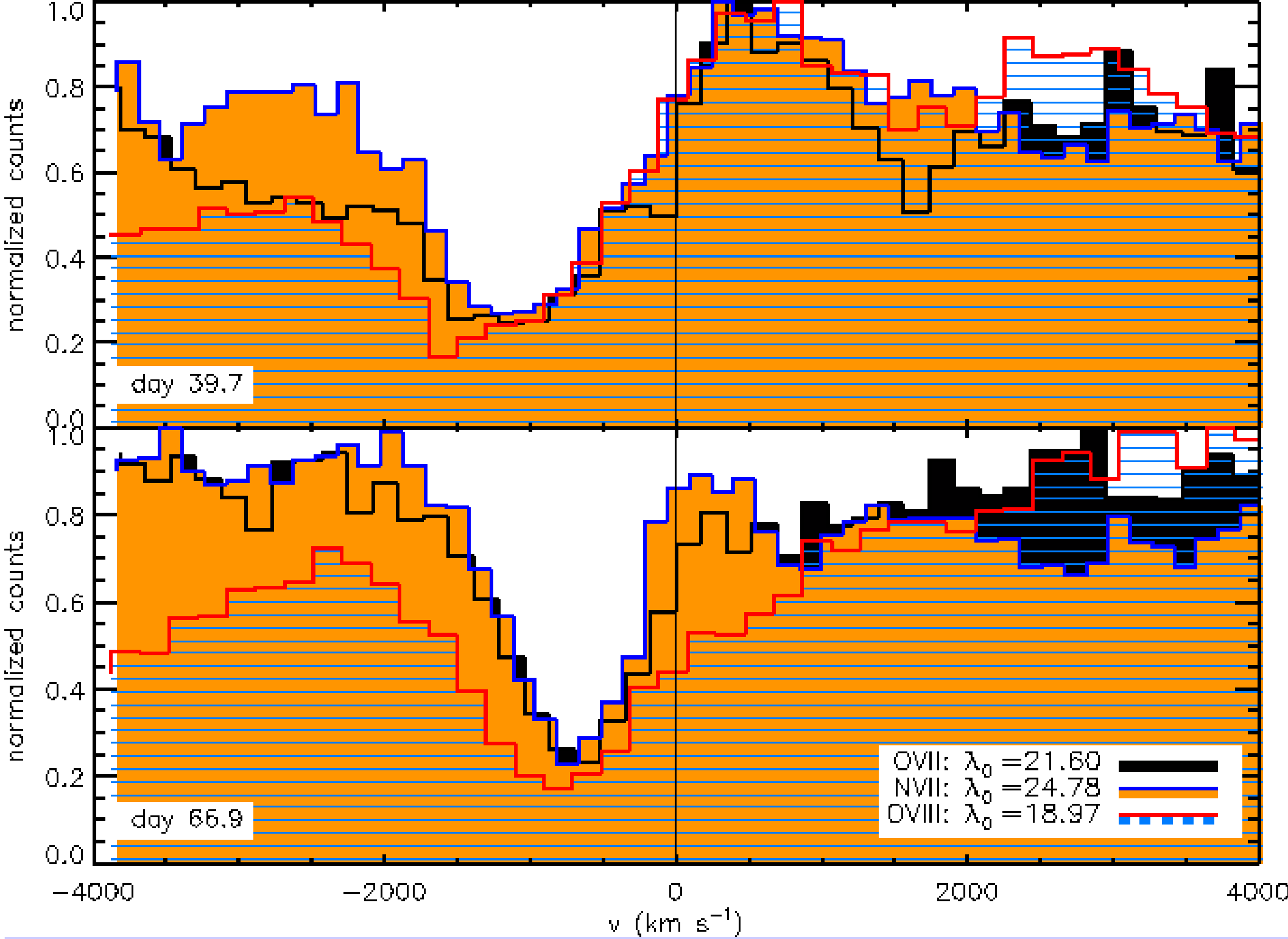
# **Phoenix atmosphere models:**

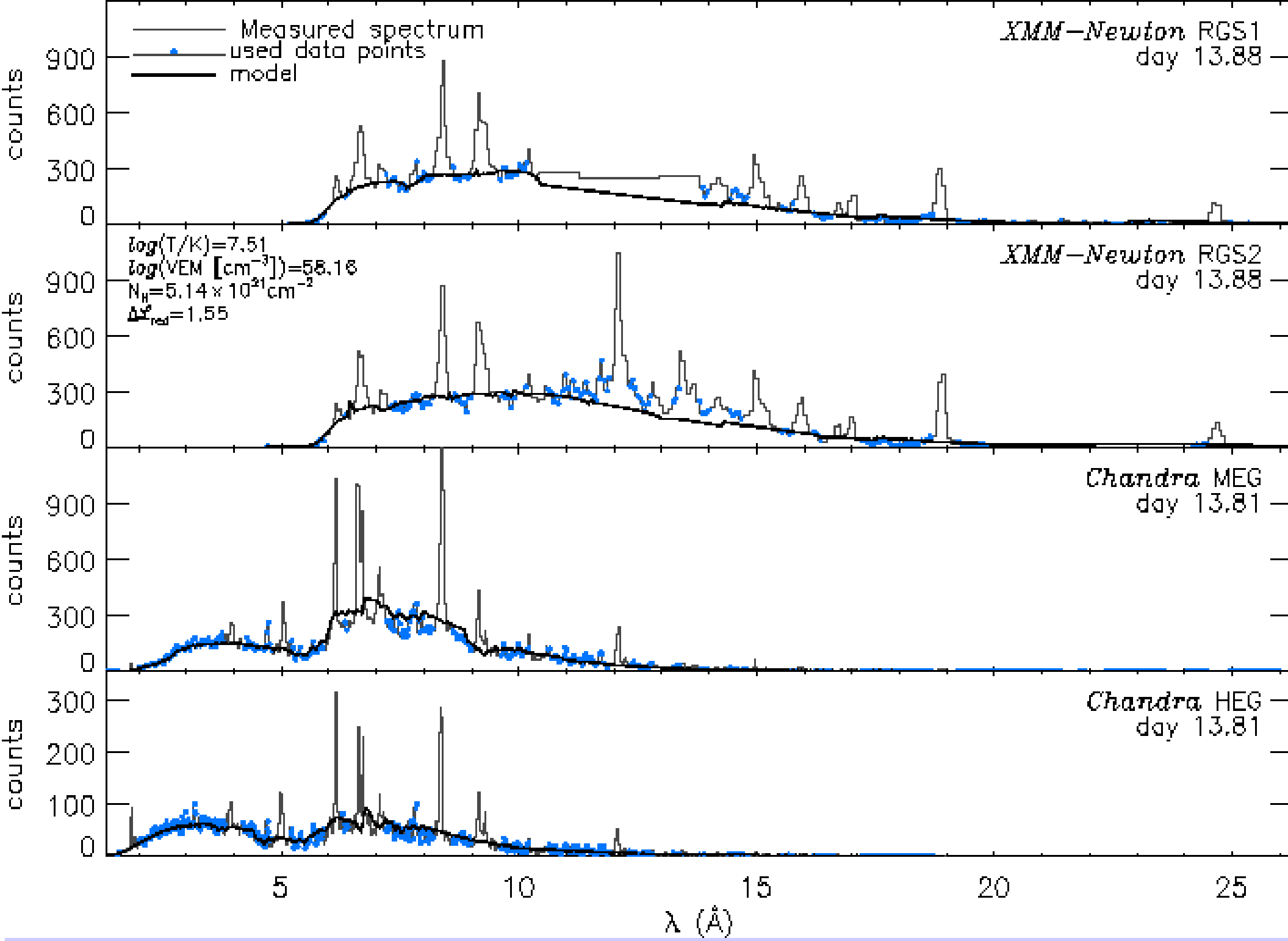
## **1) preliminary model**

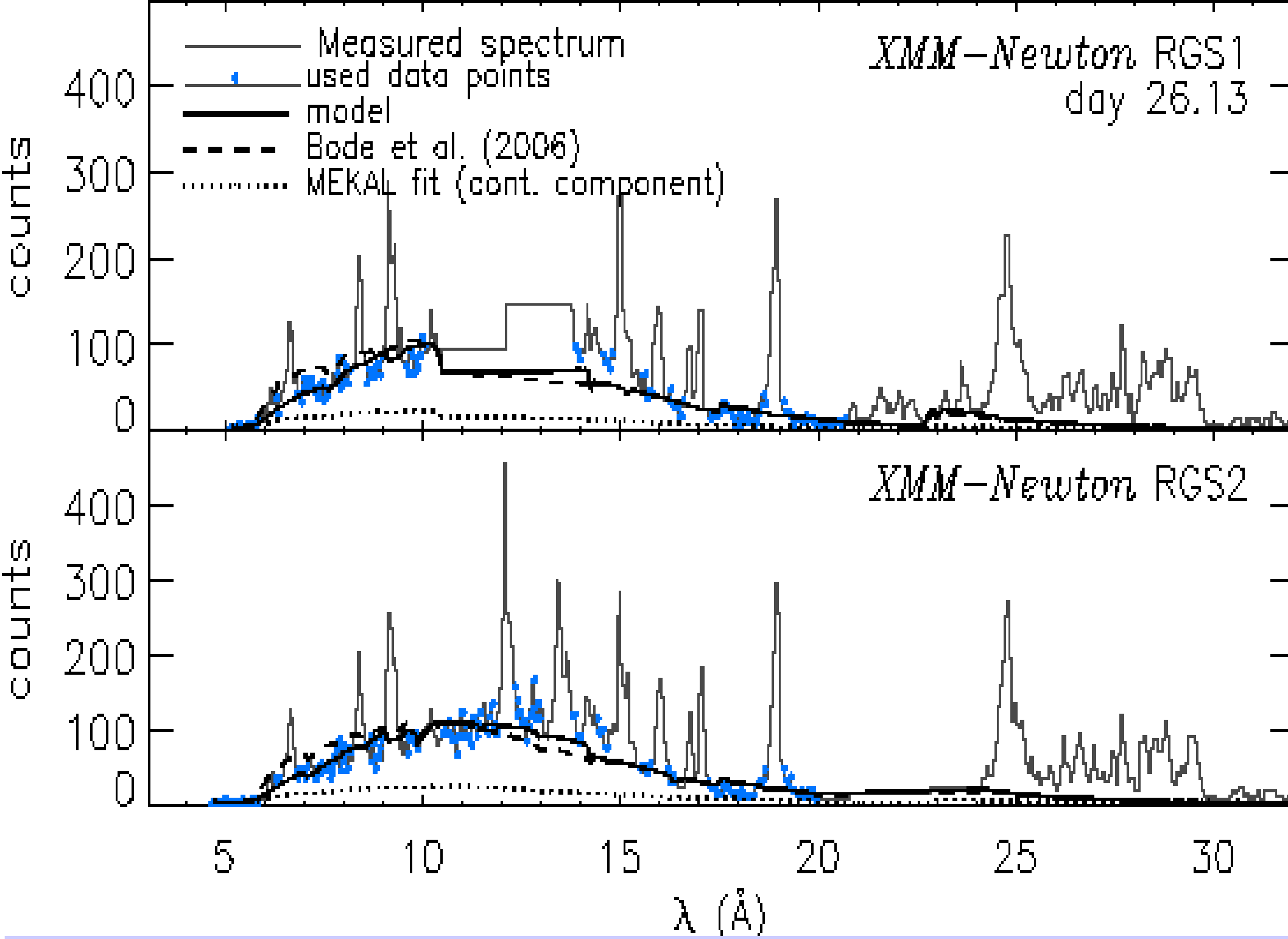
- plane parallel**
- static**

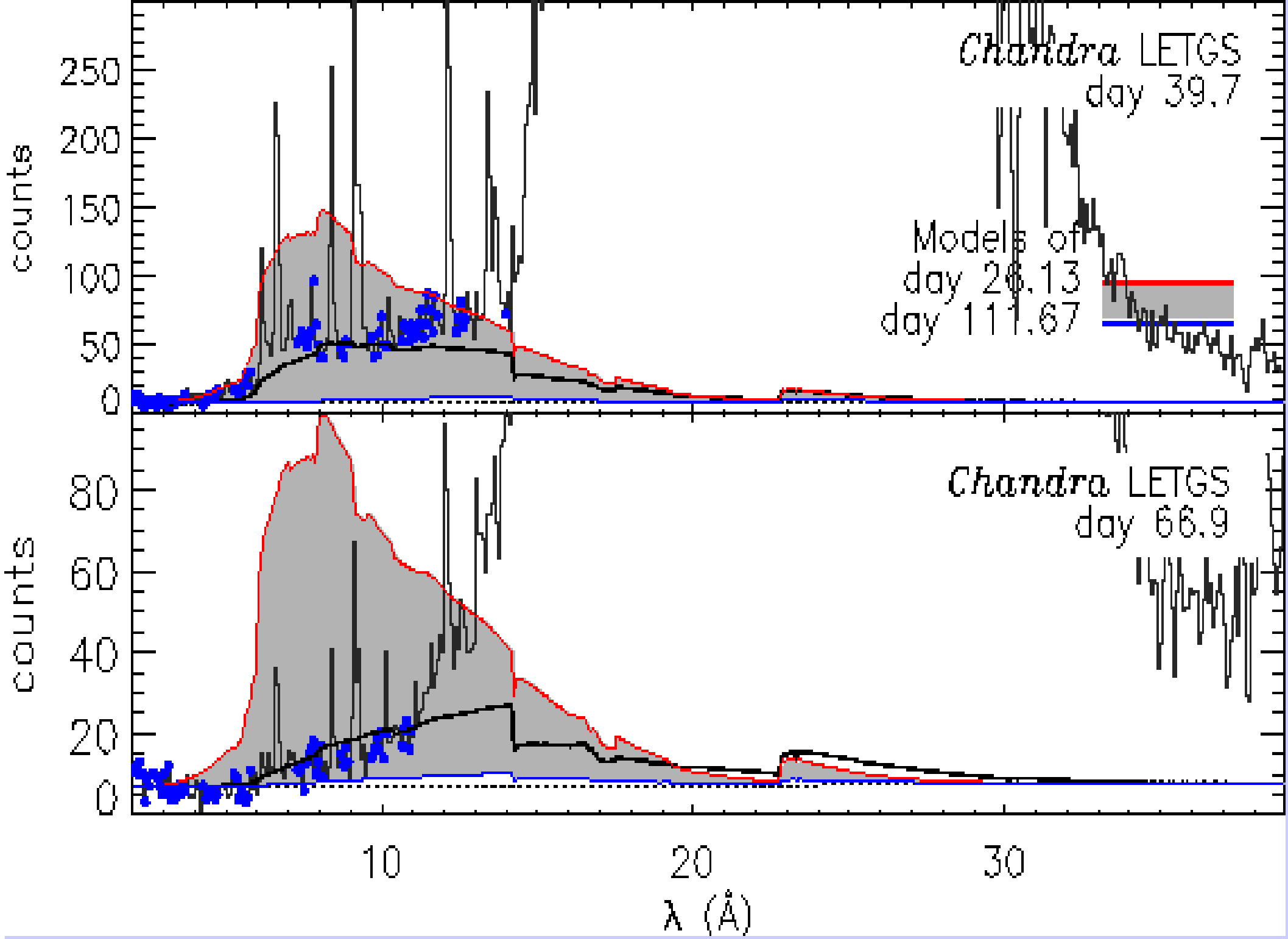
## **2) ToDo**

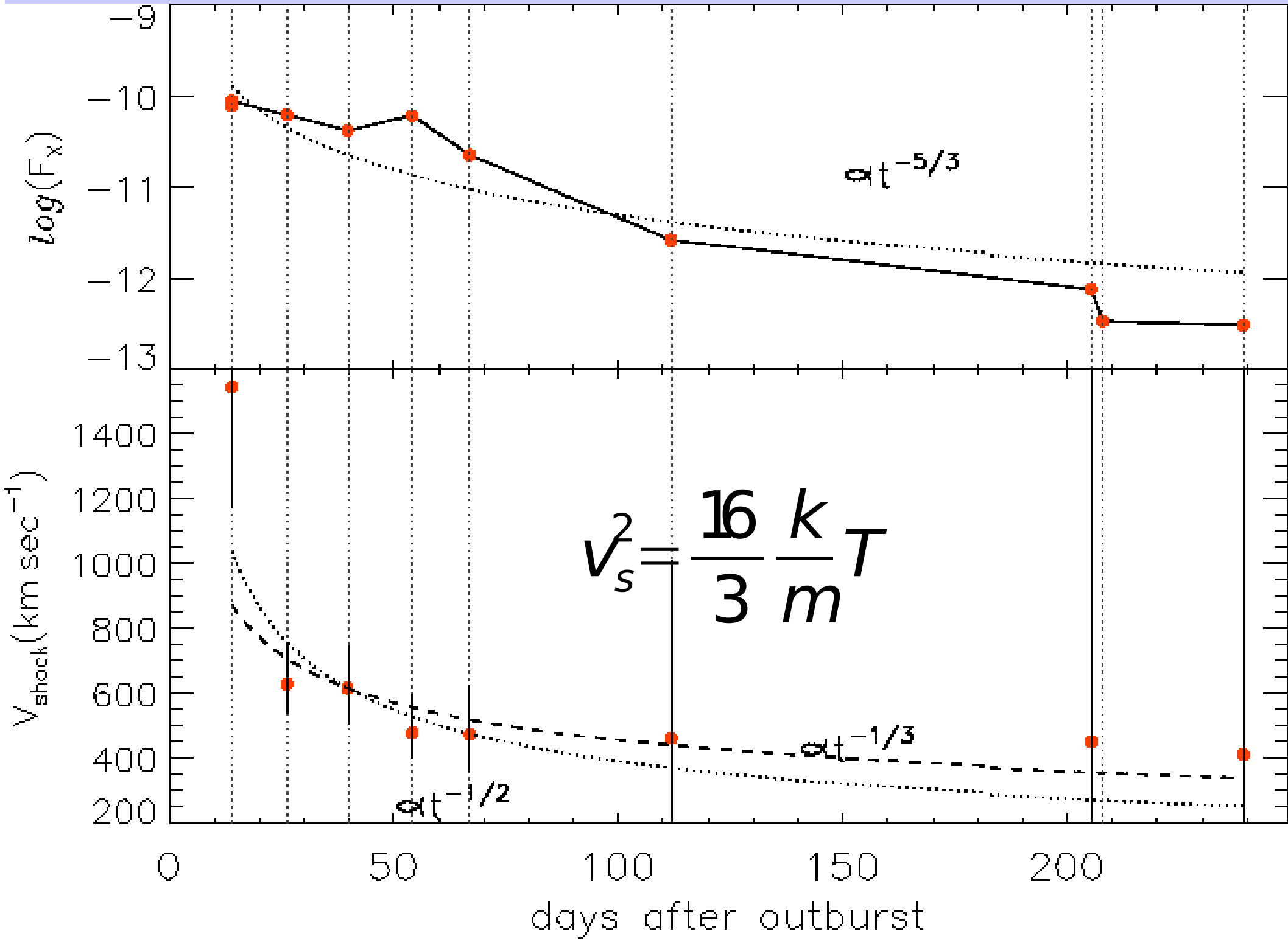
- spherically symmetric**
- account for expanding nature**

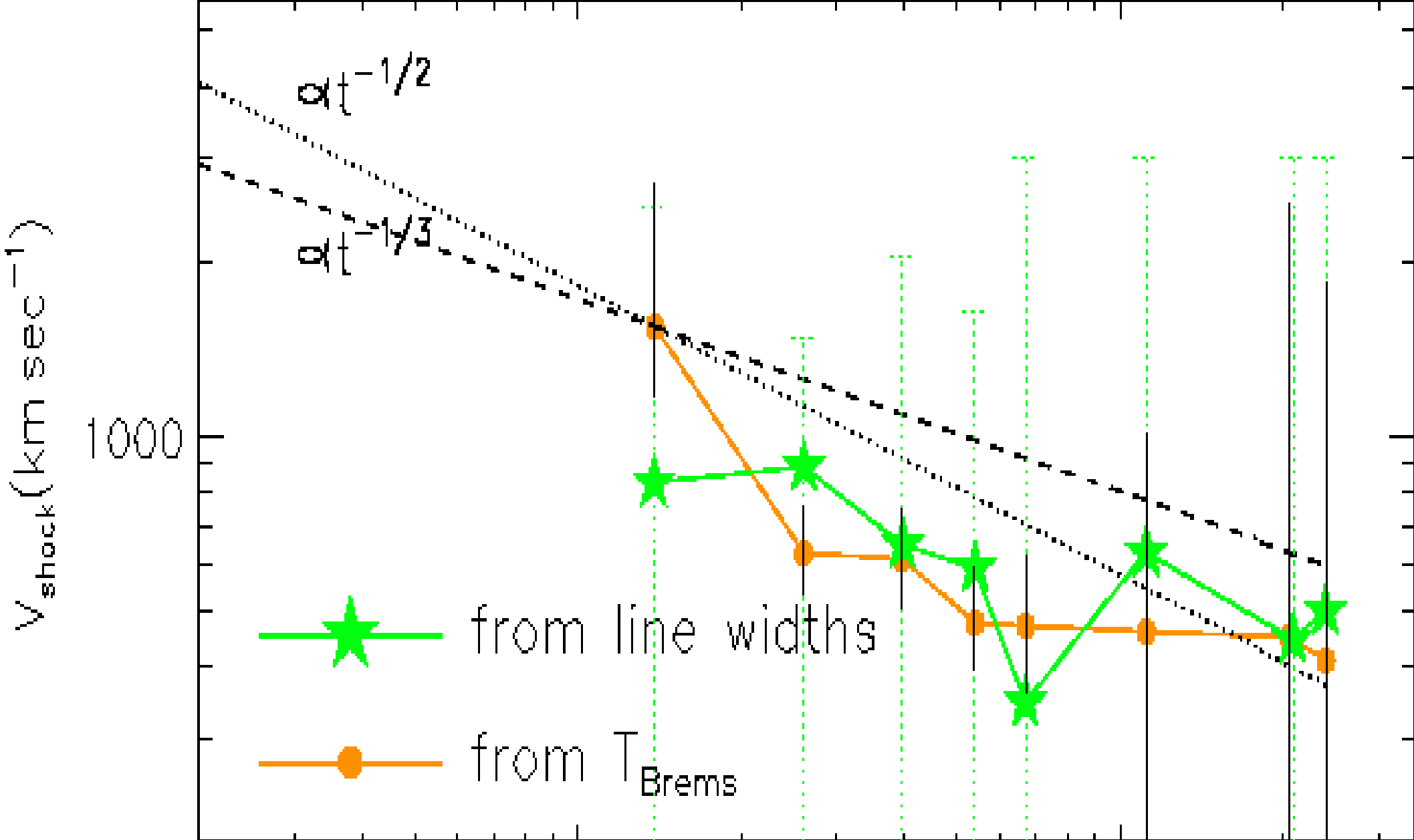












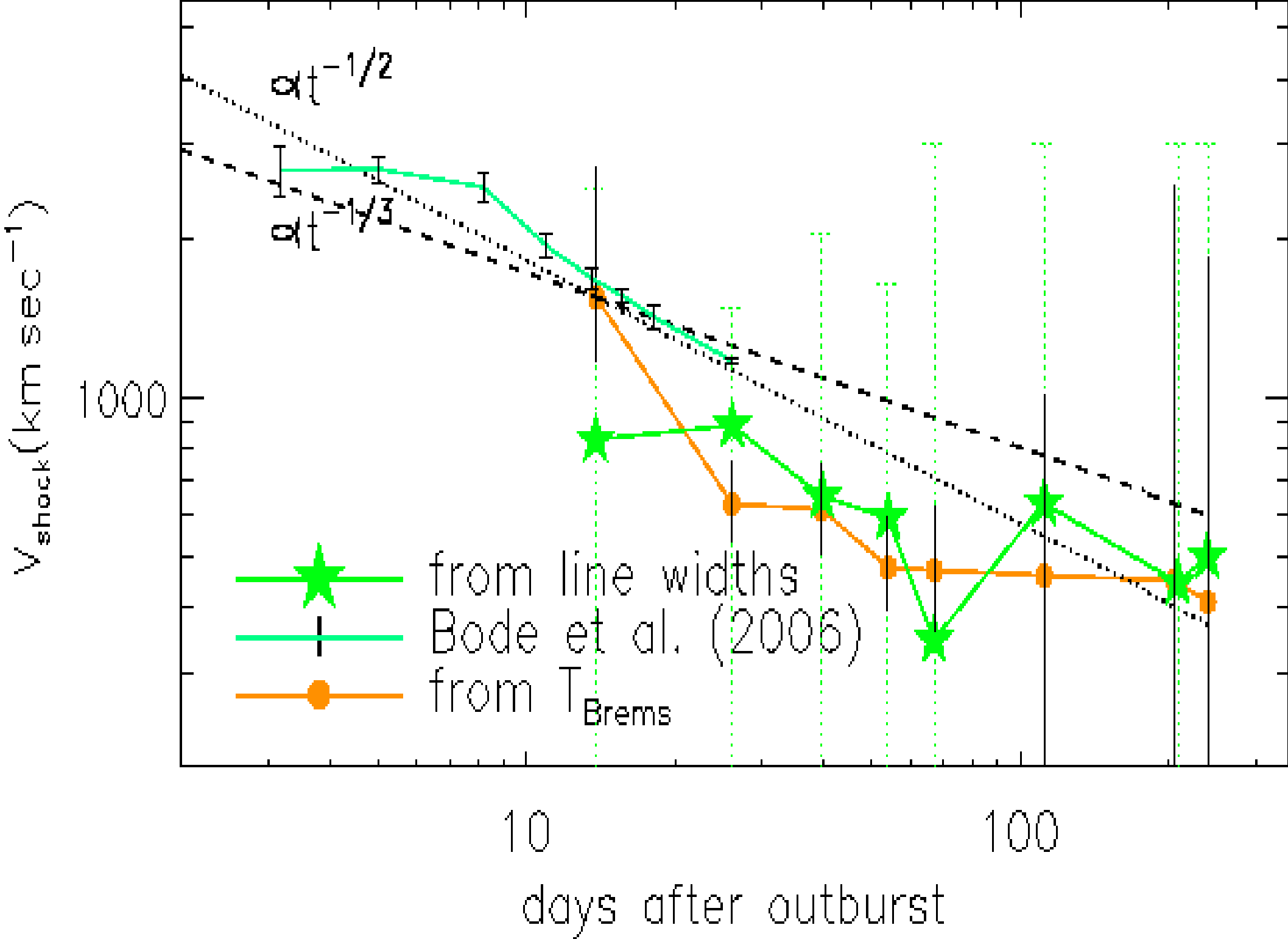
$$v_s^2 = \frac{16}{3} \frac{k}{m} T_{\text{Brems}}$$

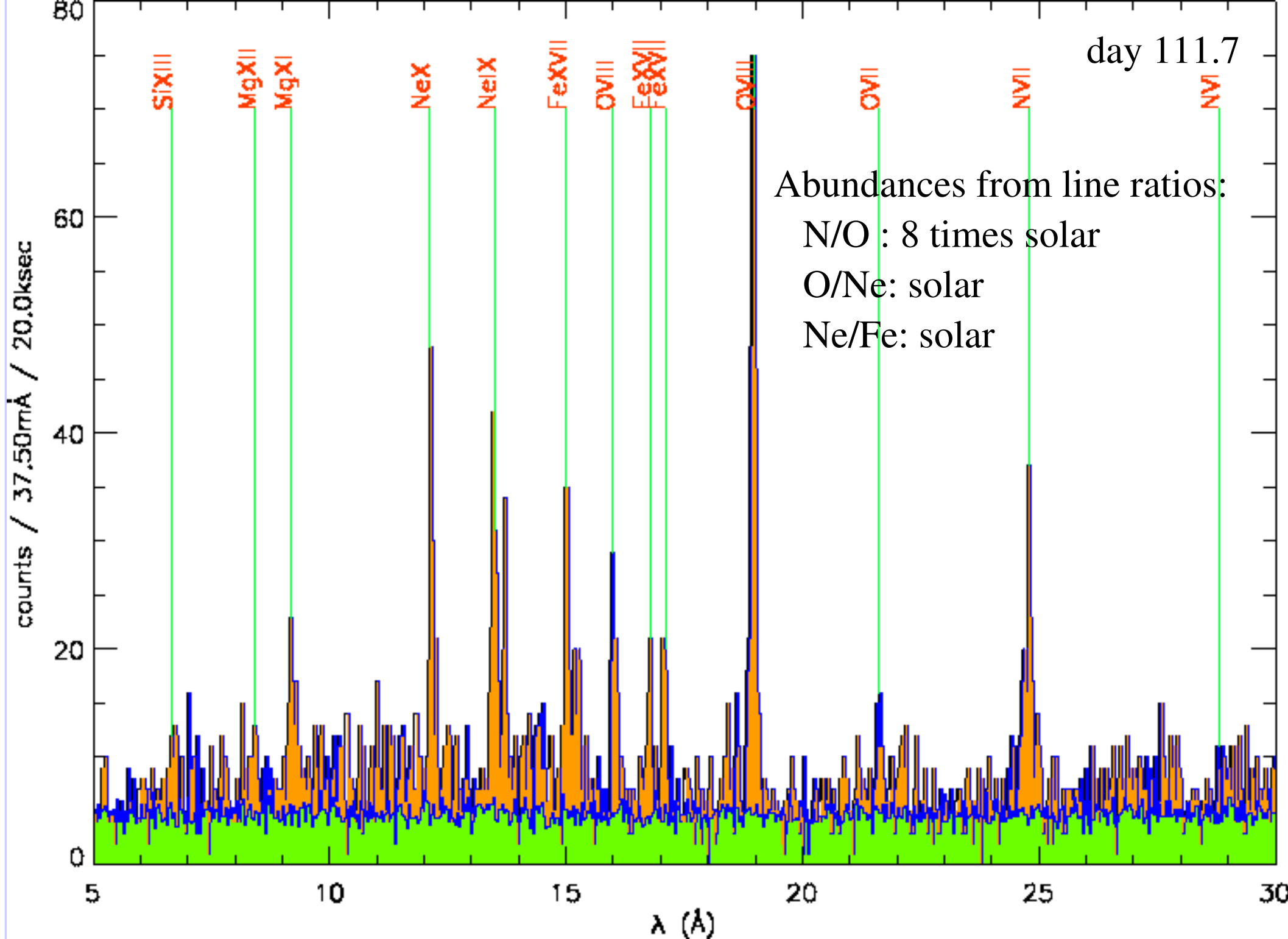
10

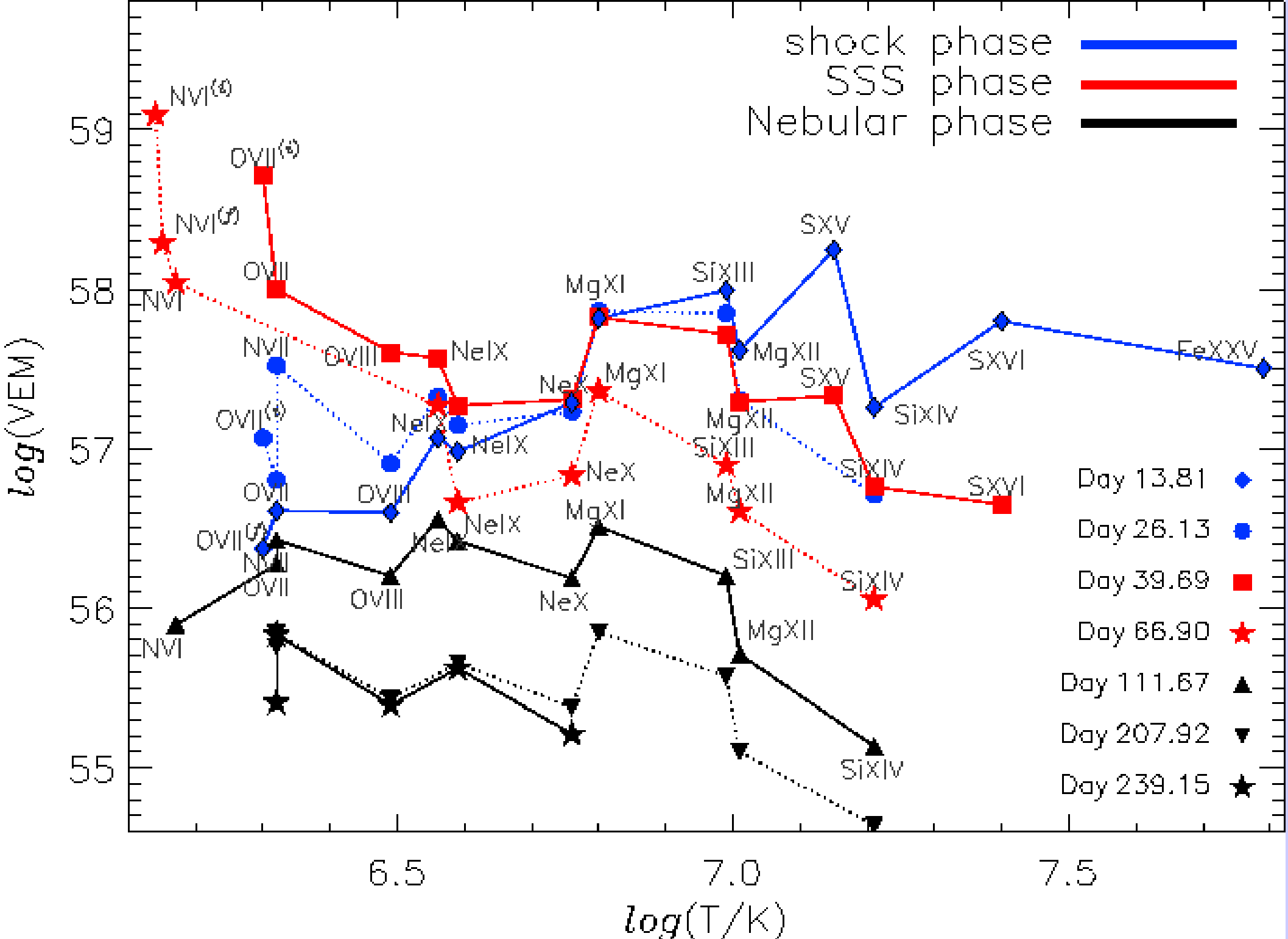
100

days after outburst









# Summary

- **The X-ray spectrum from the White Dwarf is much stronger than the shock but is softer -> little overlap** but some...?
- **Bremsstrahlung models to shock spectrum give description of kinematics**
- **Emission lines give shape of temperature structure**
- **Origin of soft emission lines debatable**

