

The lines of HR1099

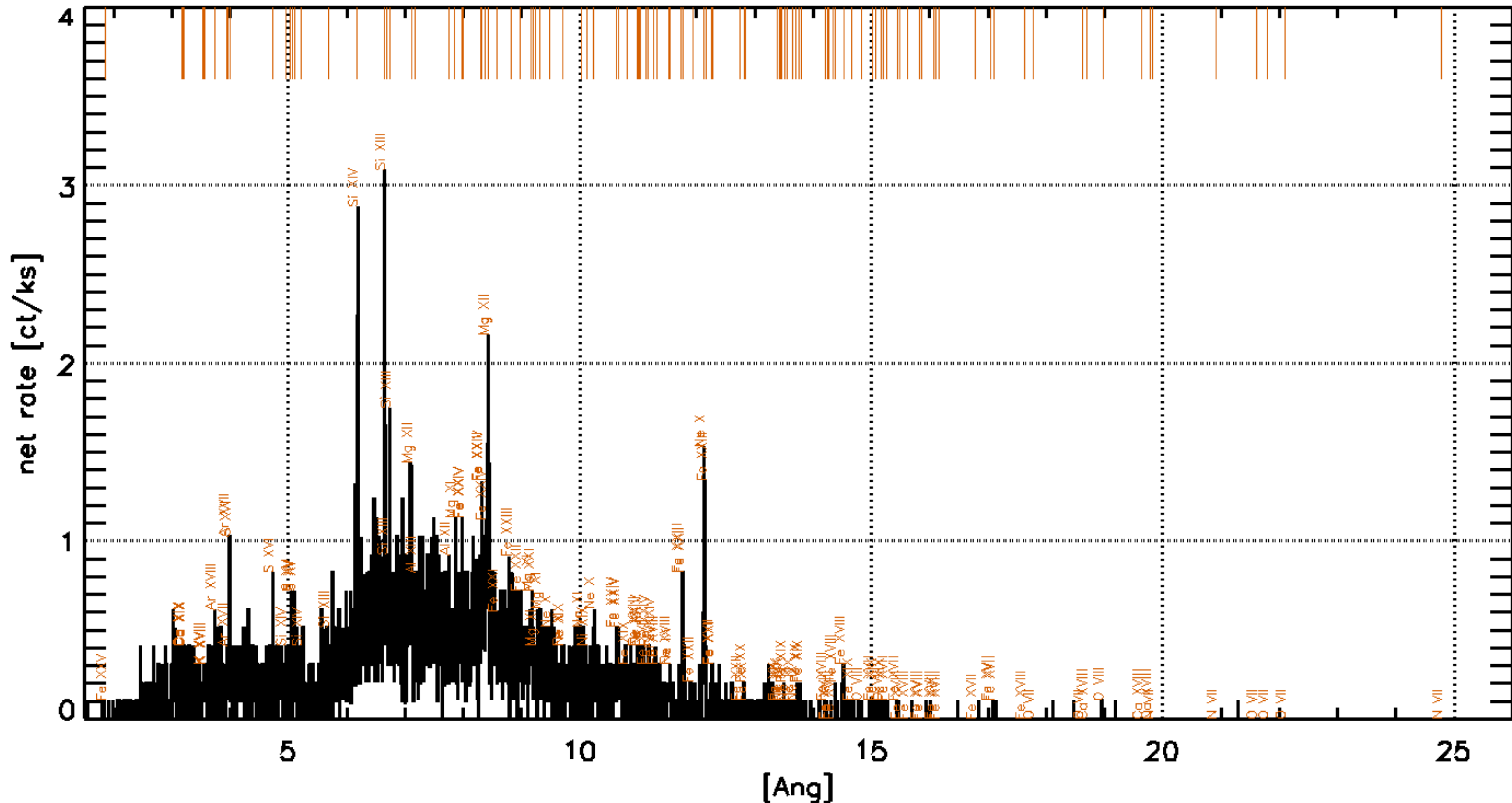
A study of the lines in ACIS-S/HETG spectra obtained simultaneously with XRISM calibration observation

HR 1099 : context

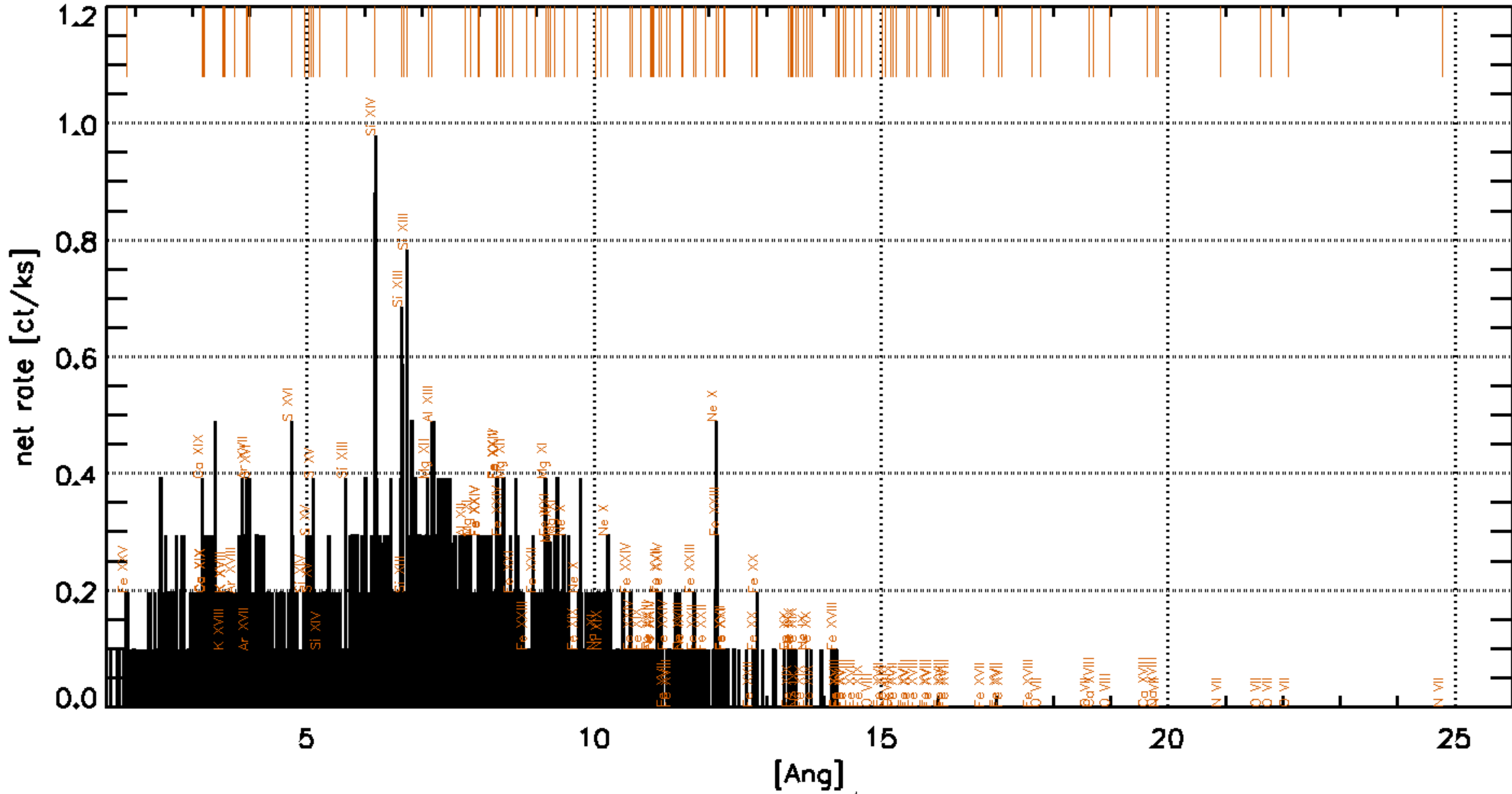
Flaring K1 IV+G5 V active binary at 29.4 pc with $P_{\text{rot}}=2.83774^{\text{d}}$ ($\text{JD}_0=2451142.943$)

- Observed several times with Chandra (Huenemoerder et al. 2013 ApJ 768, 135; Bozzo et al. 2024 MNRAS 528, 4591)
 - Huenemoerder+2013 provide a detailed line list
 - Bozzo+2024 demonstrate the Doppler velocity shifts of lines matches that from K1 IV
- Latest Chandra observations, with HETGS+ACIS-S:
 - ObsID 29278 – 2024-03-08 17:57 +10 ks
 - ObsID 29315 – 2024-03-09 01:54 +10 ks

HR 1099 : m29315 : 9.72 ks

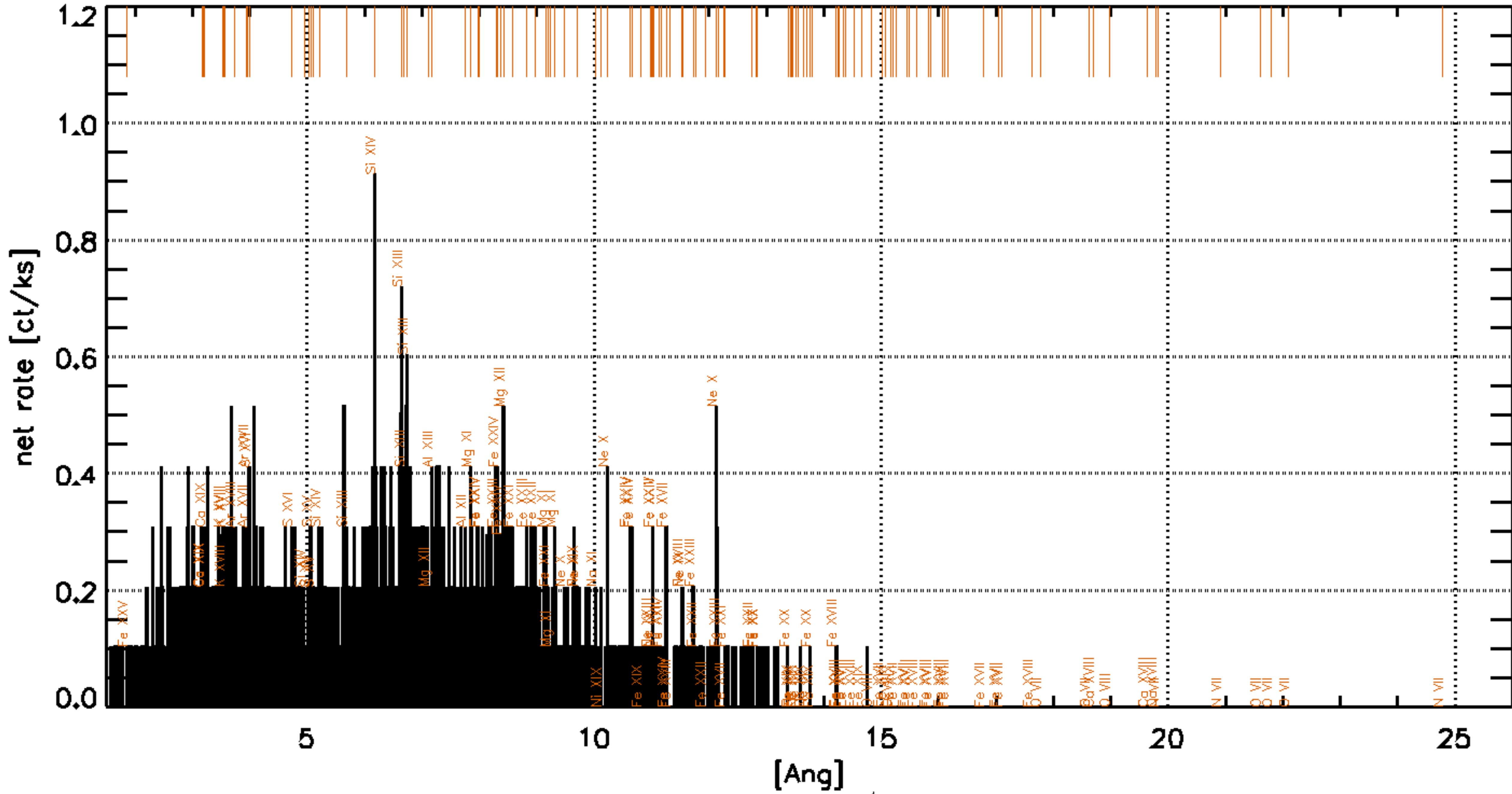


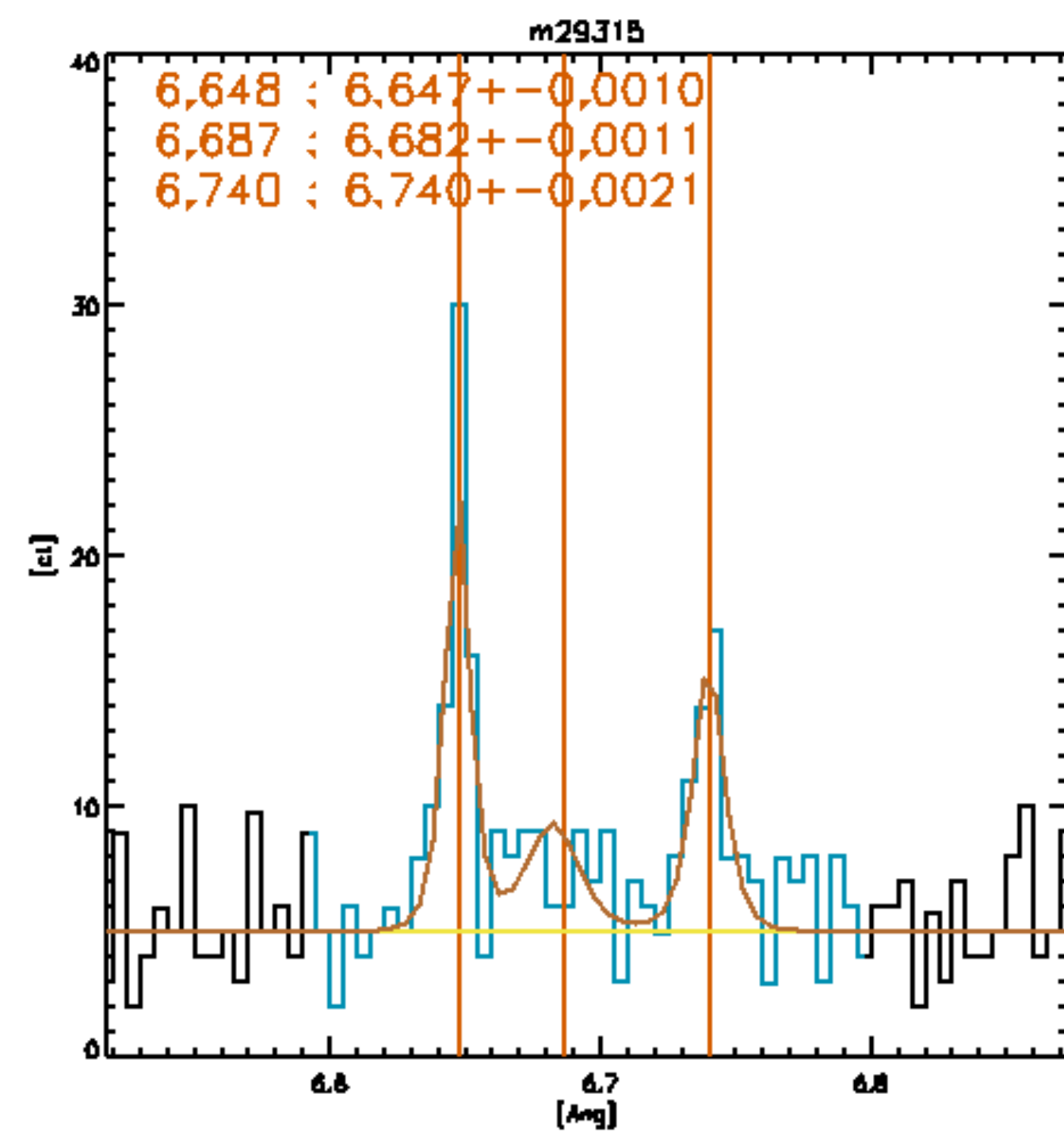
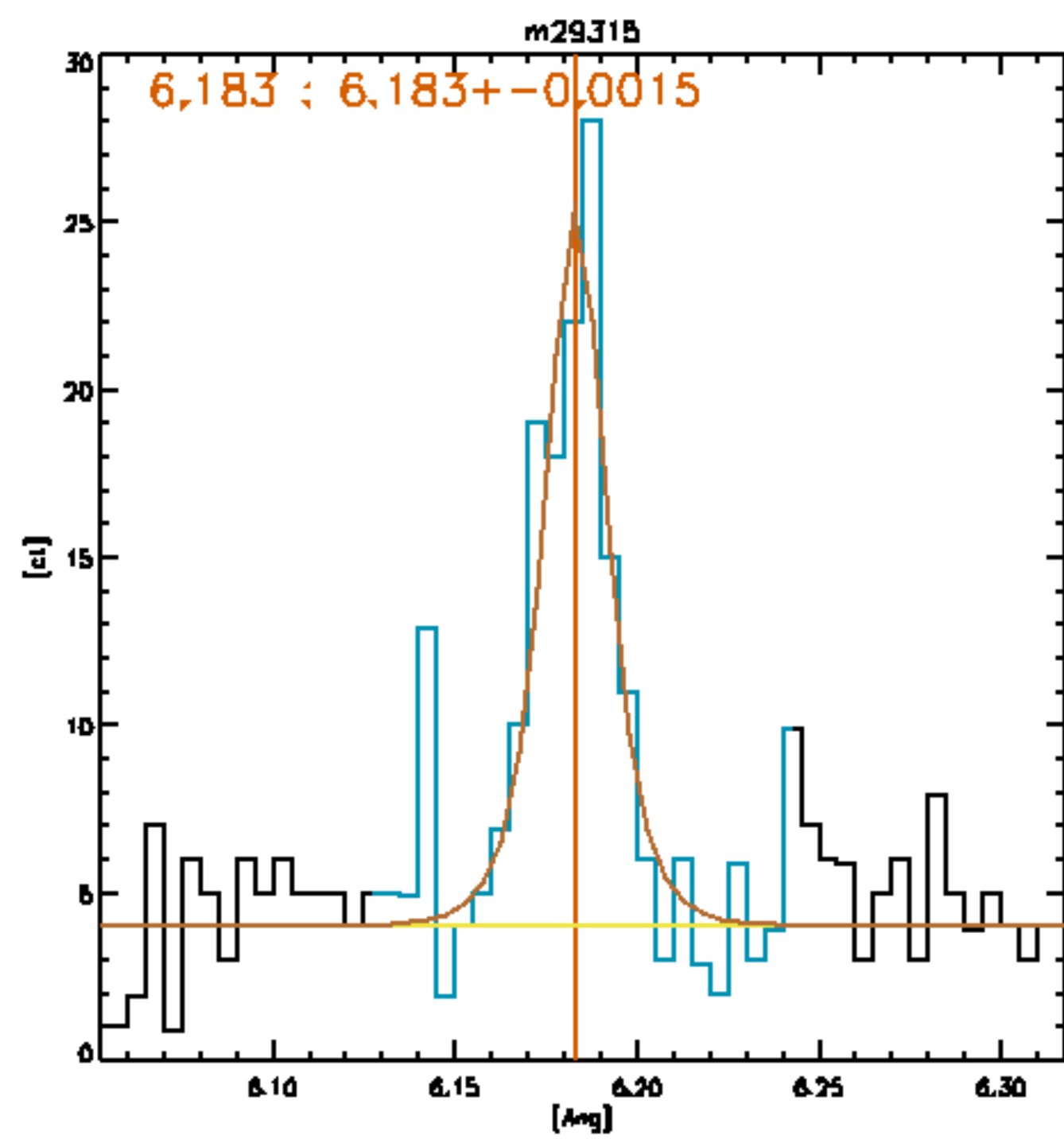
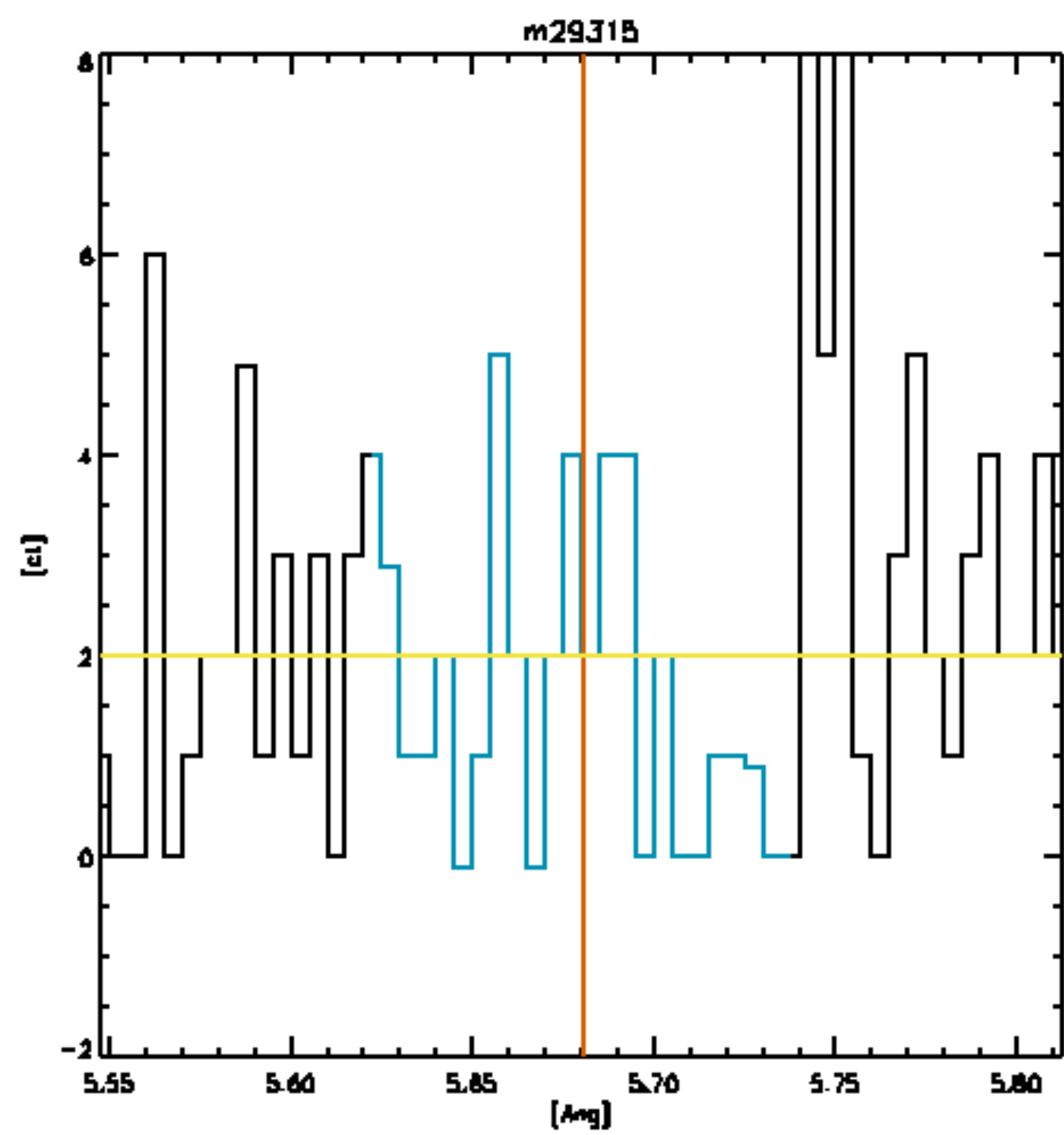
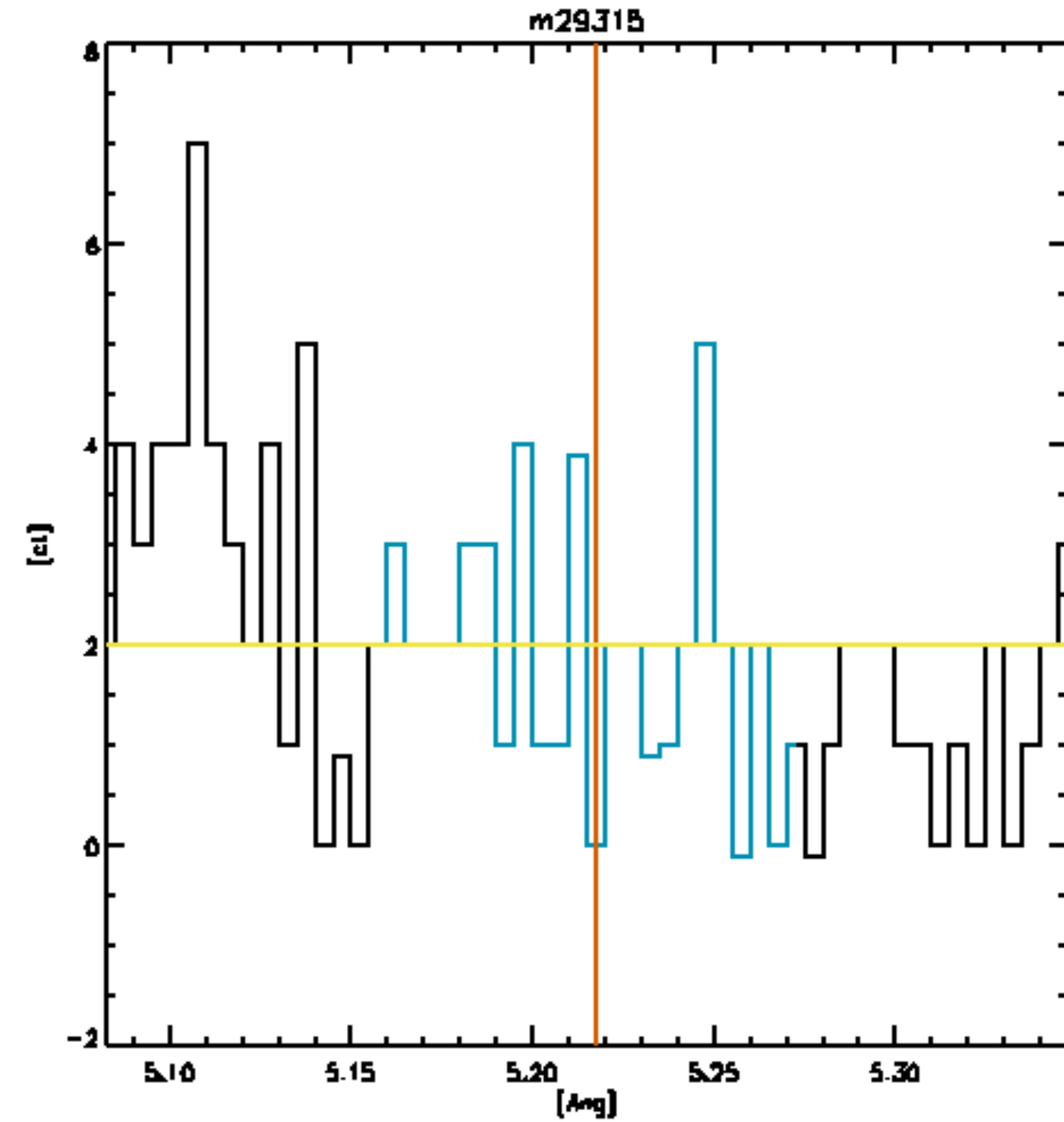
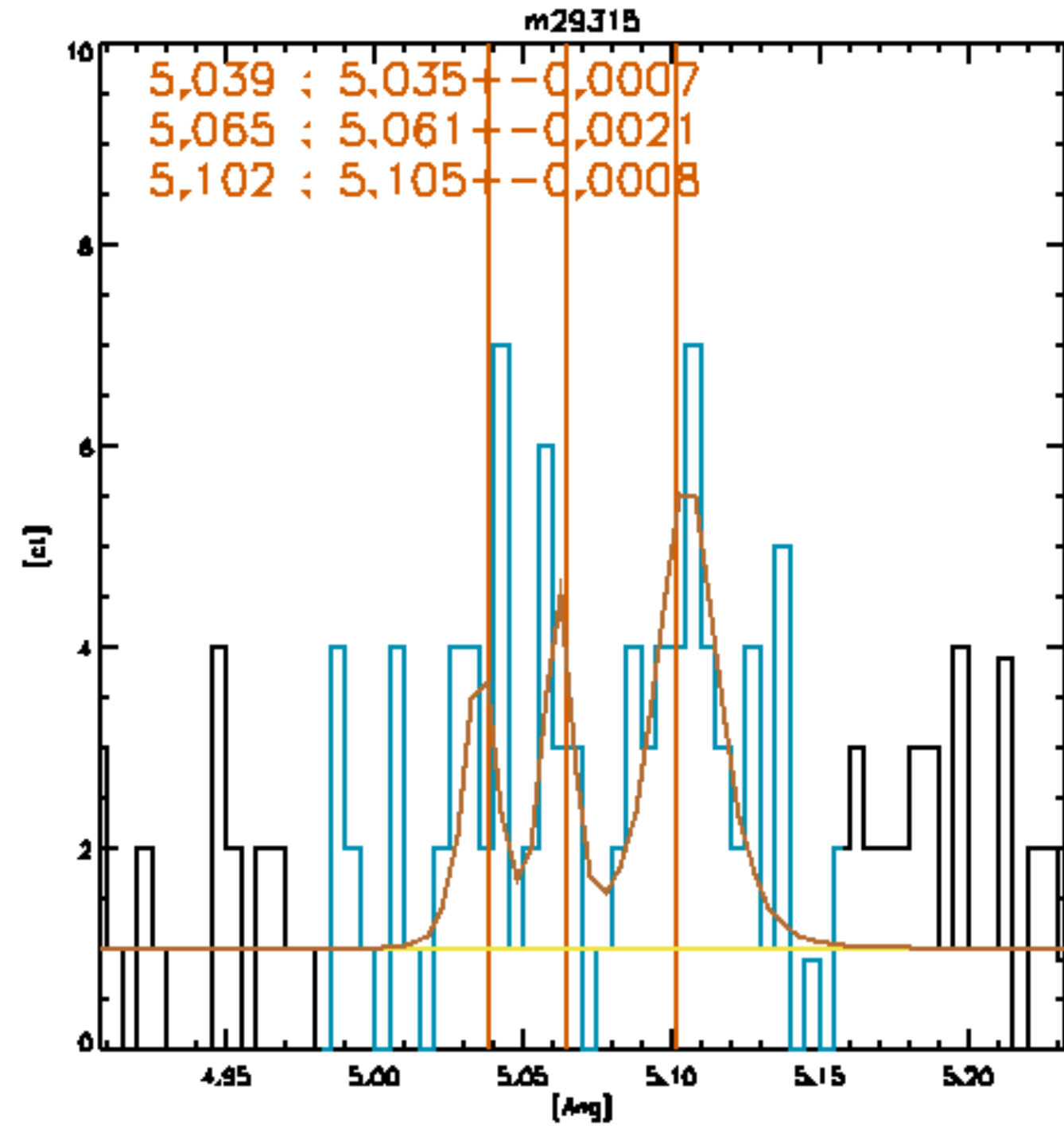
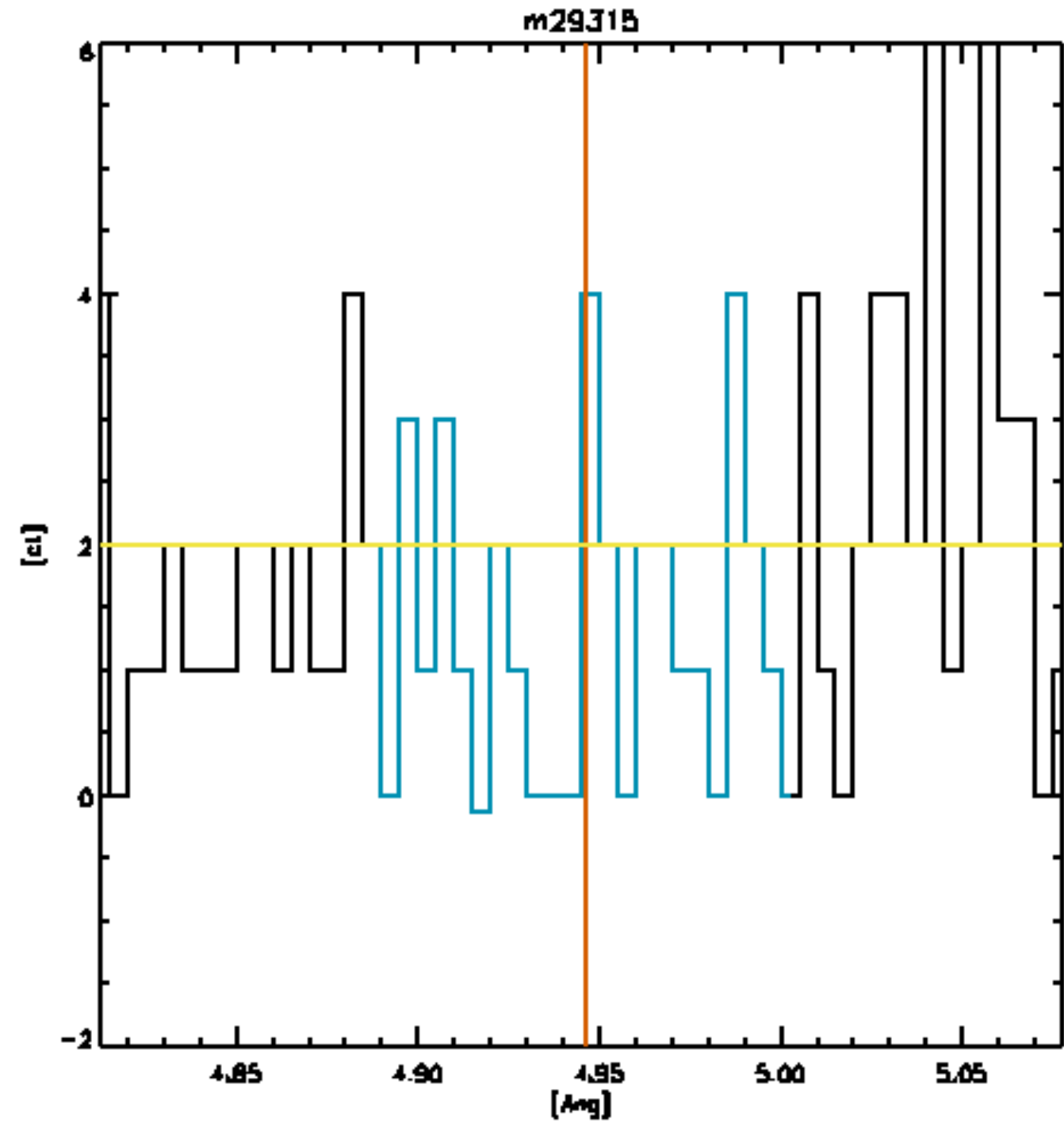
HR 1099 : h29278 : 10.22 ks

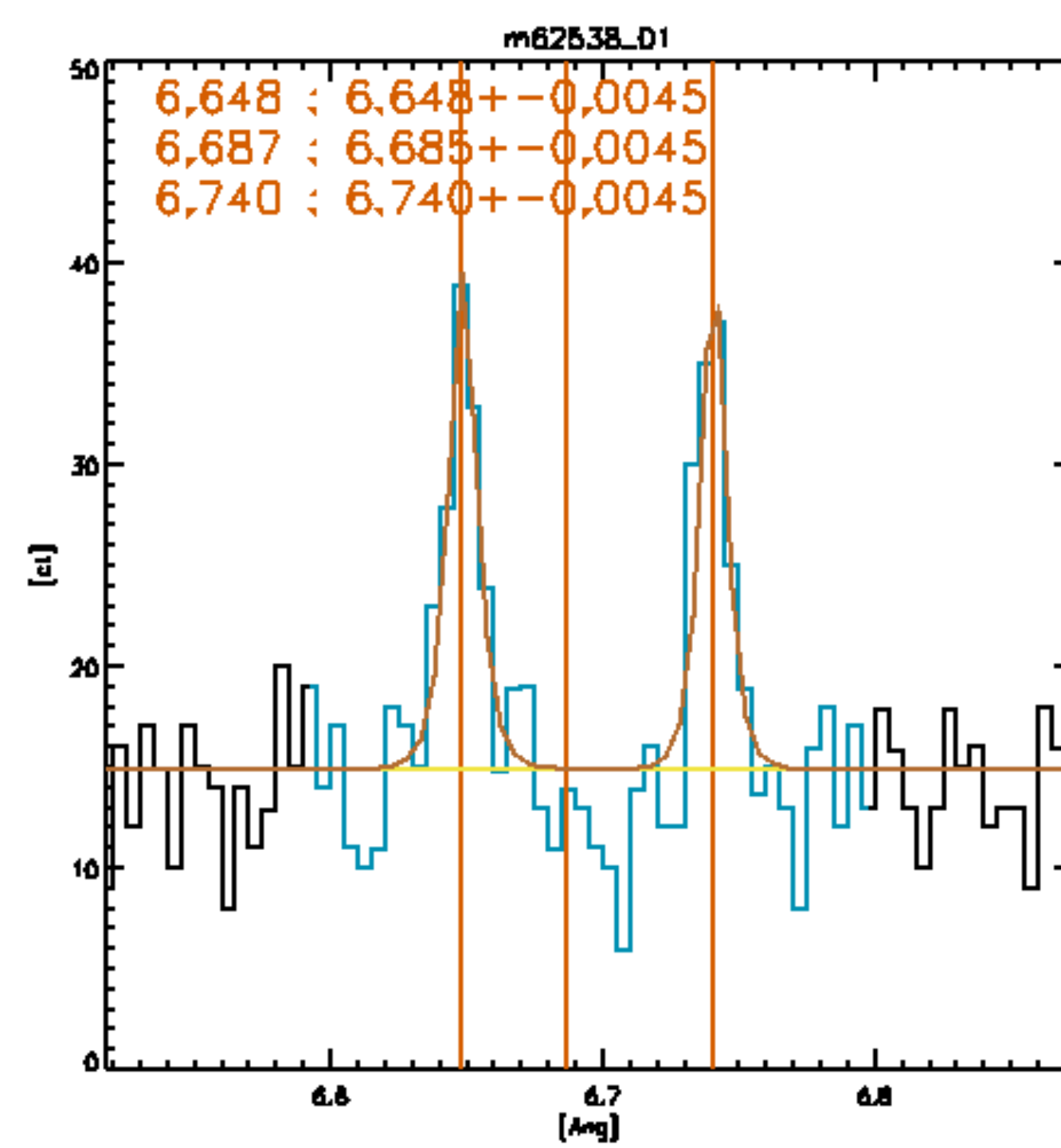
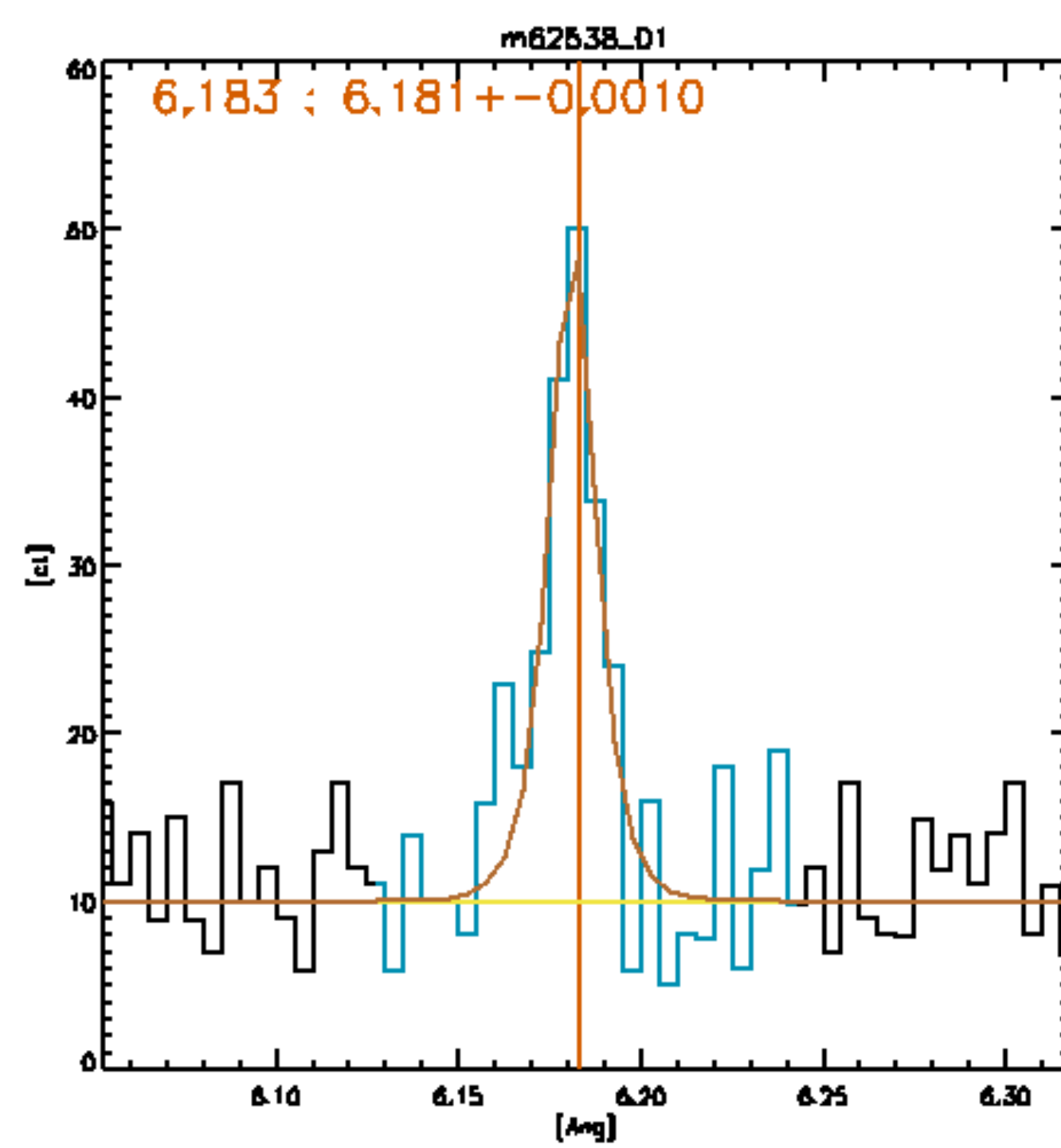
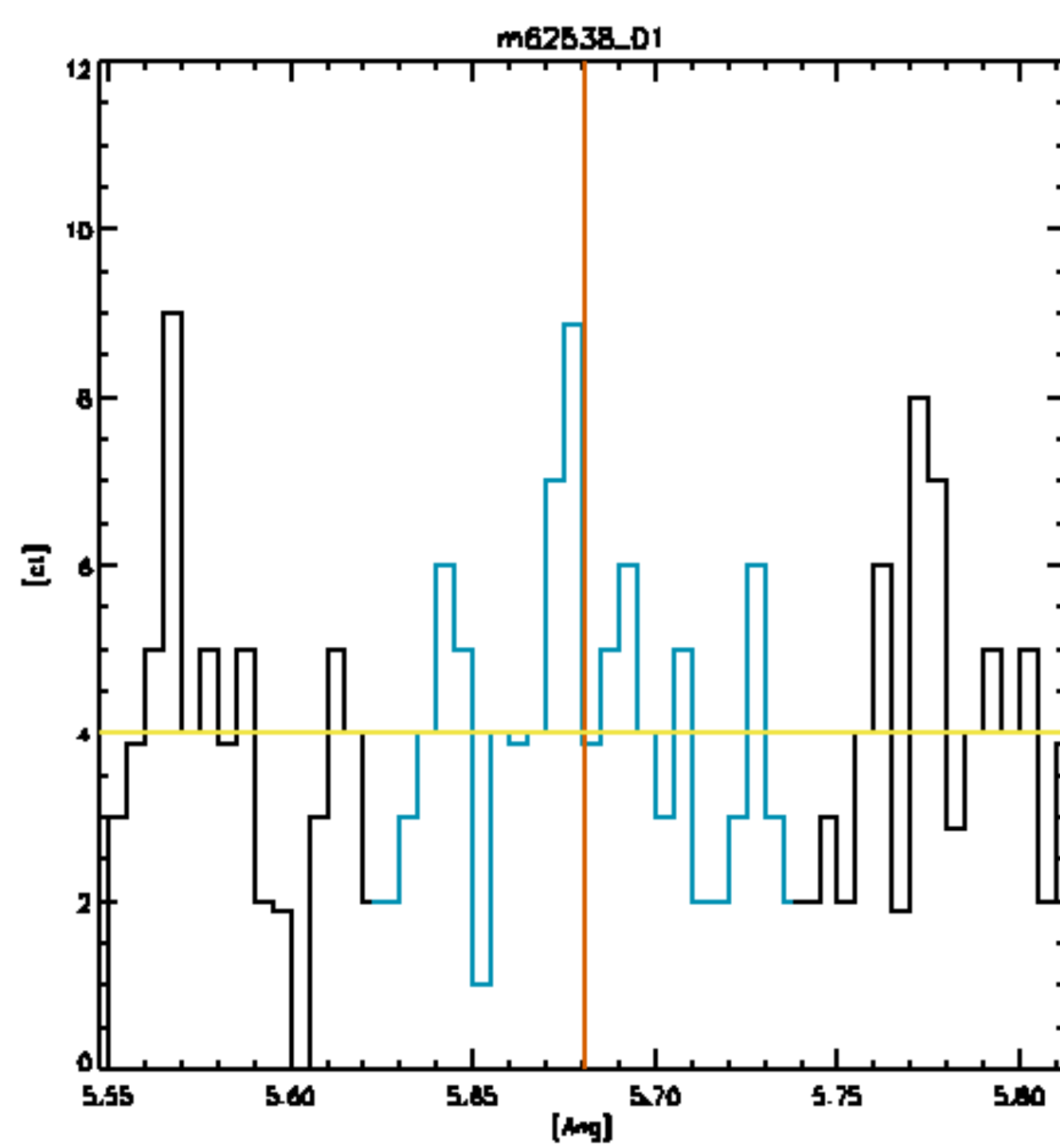
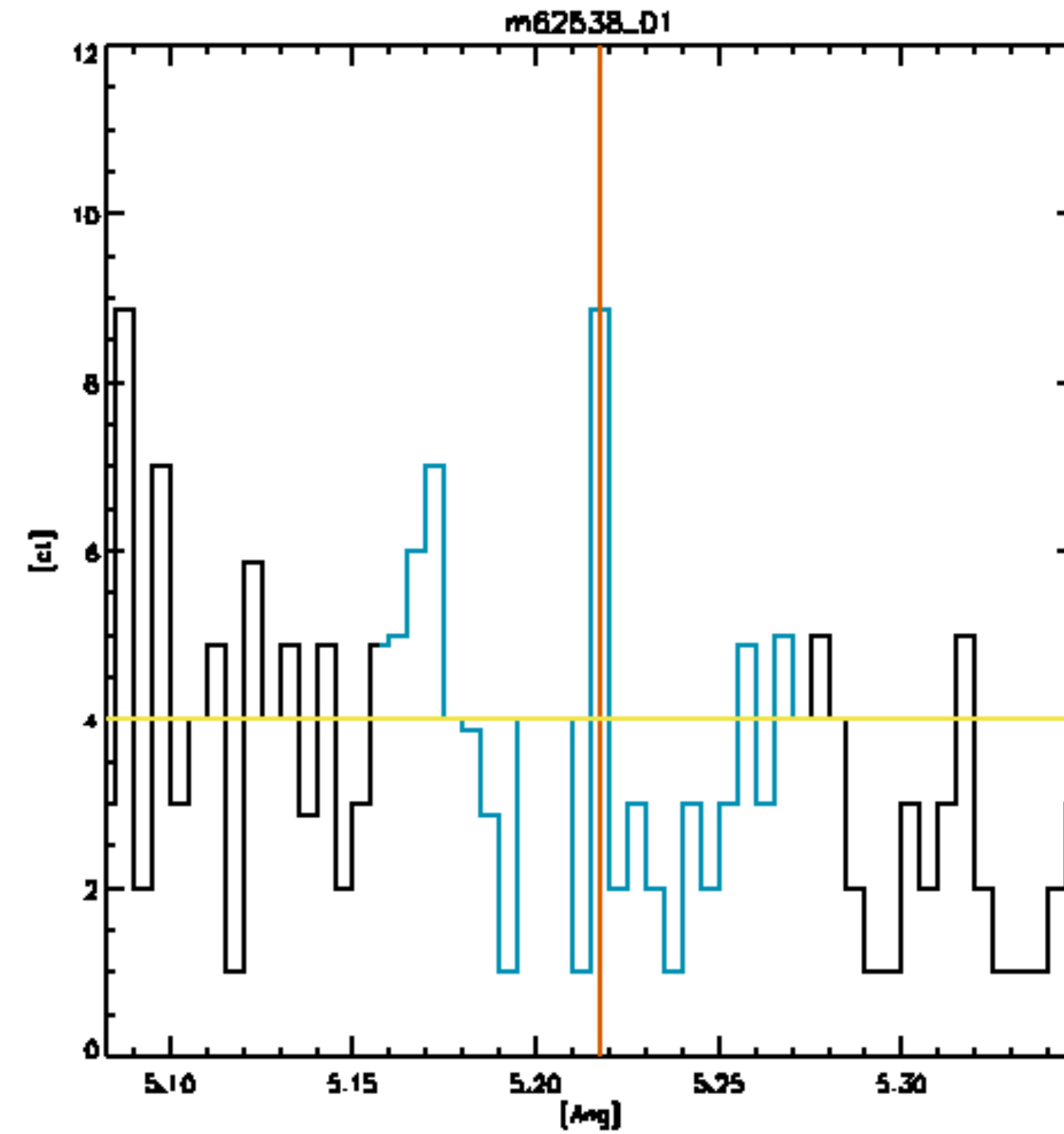
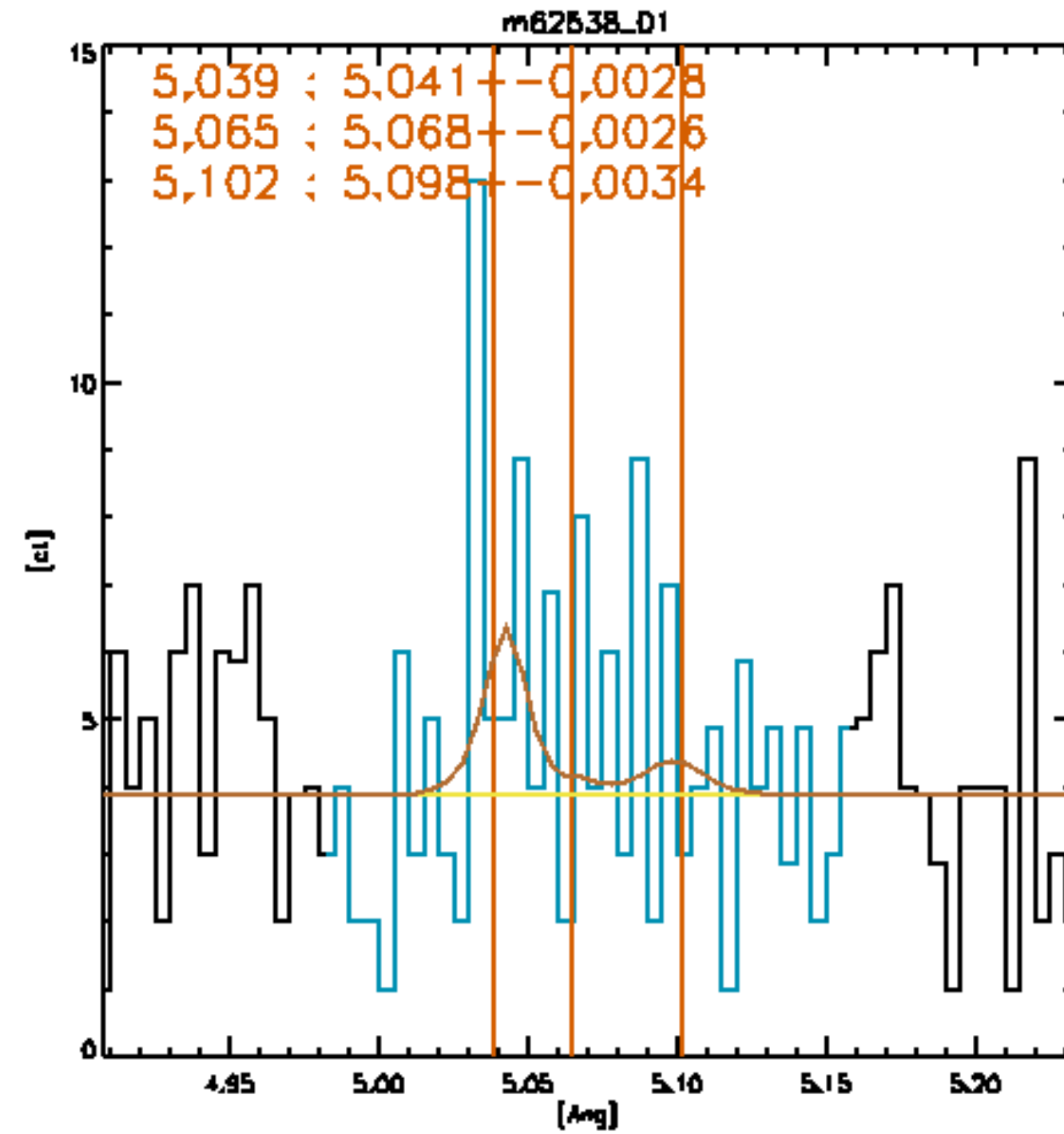
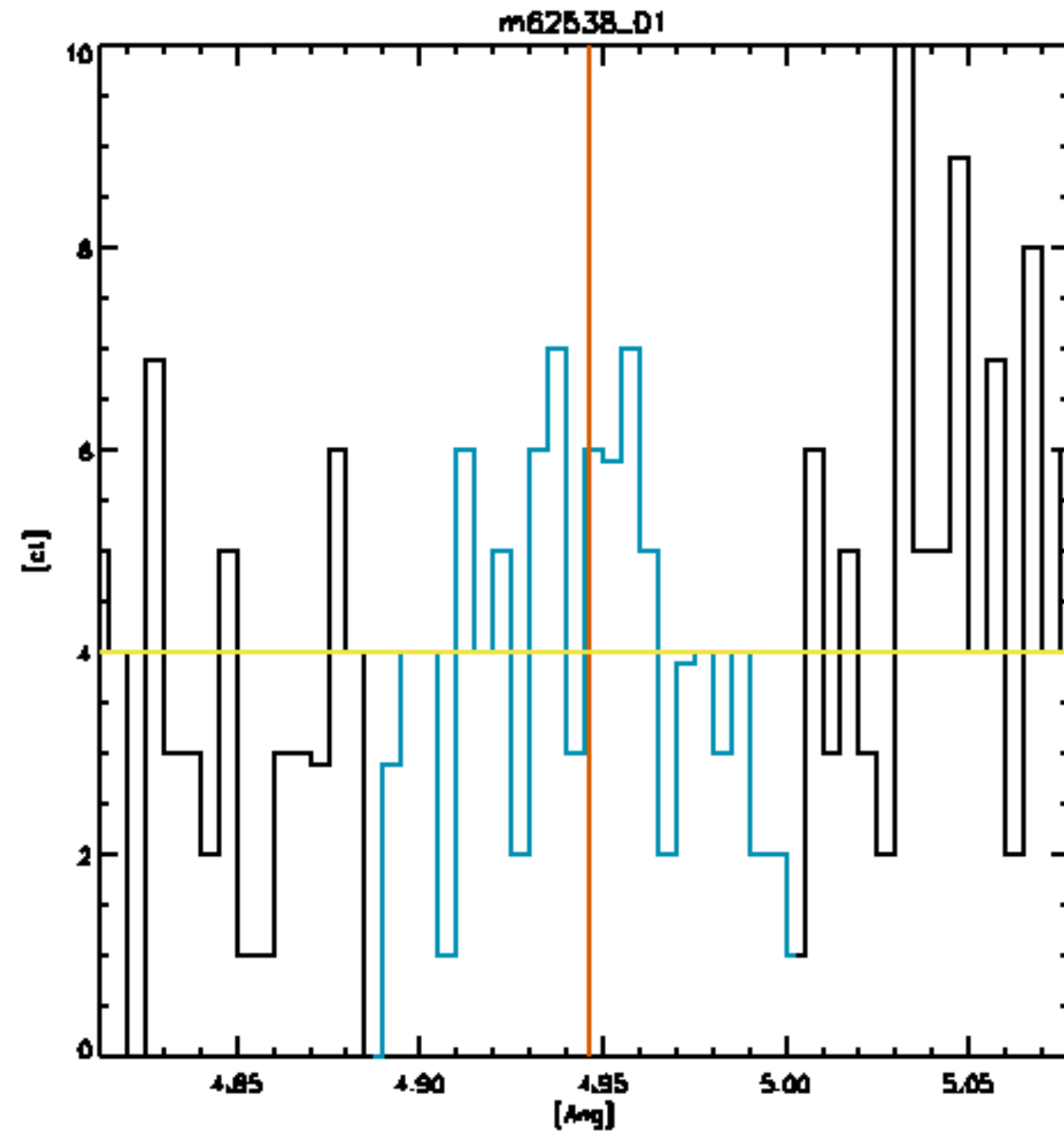


2024-03-08T17:57:58

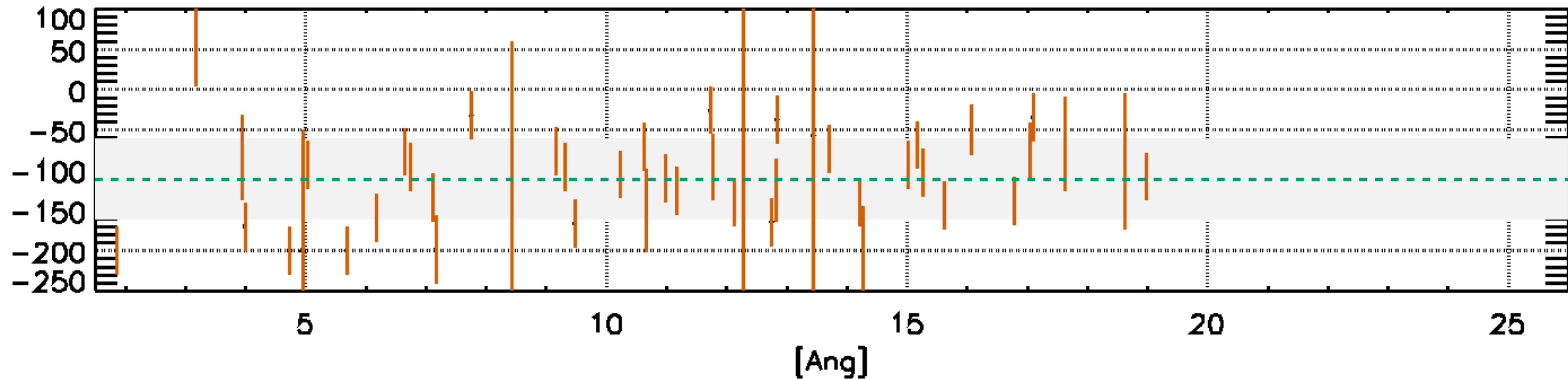
HR 1099 : h29315 : 9.72 ks



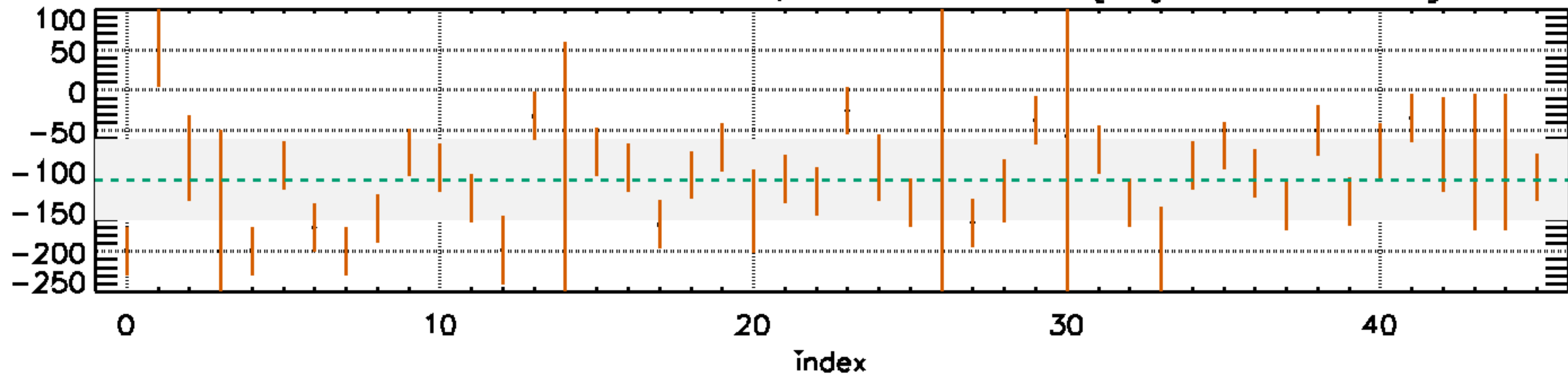




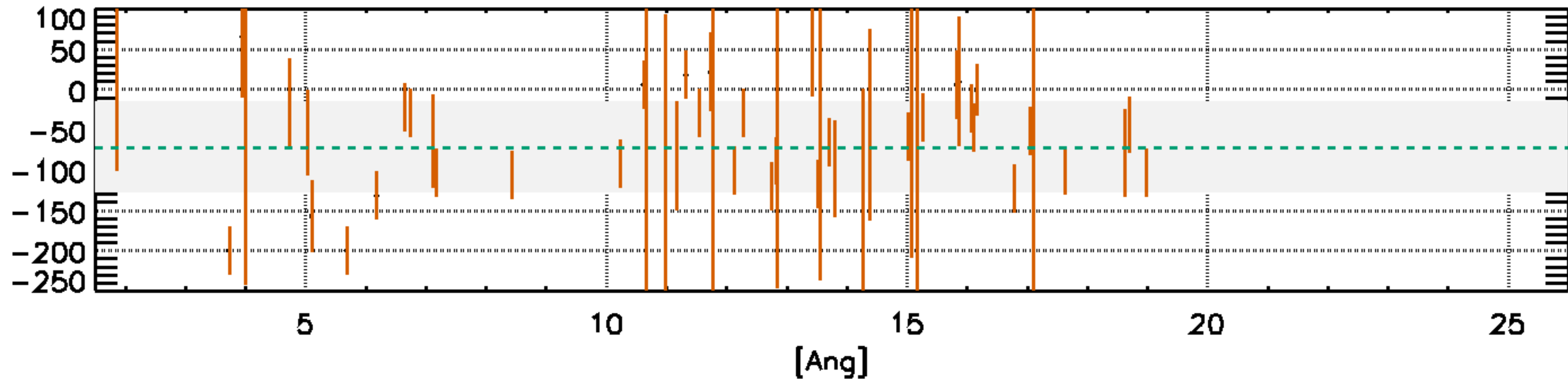
HR 1099 : h62538



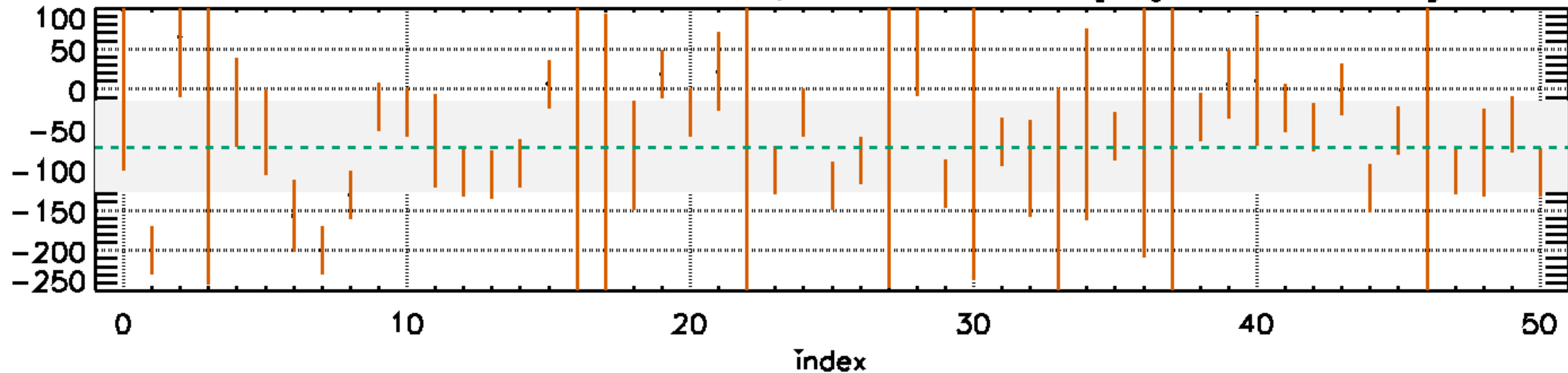
1999-09-14T22:58:06 orbital phase=0.891459 [JD₀=2451142.943]



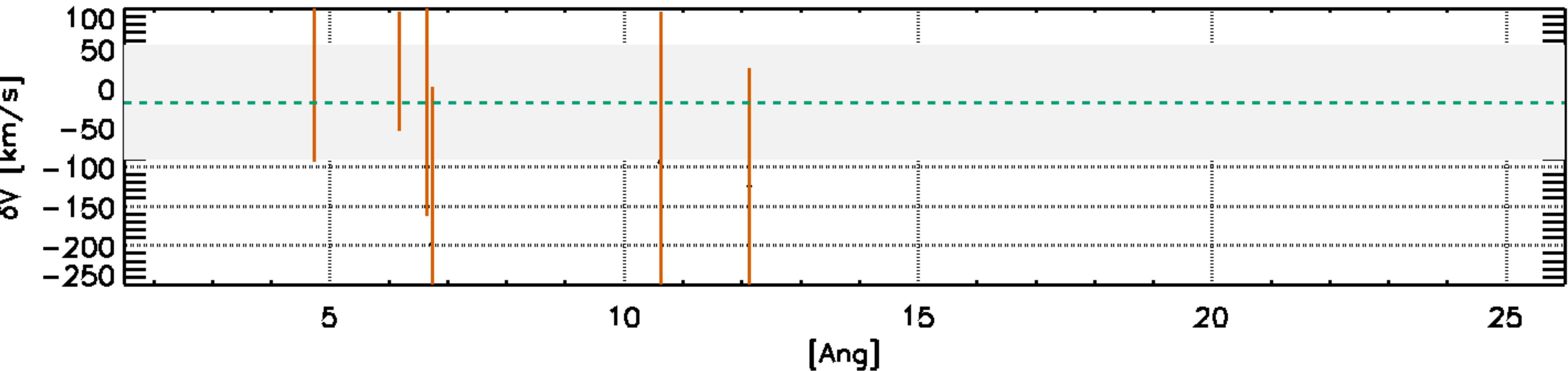
HR 1099 : m62538



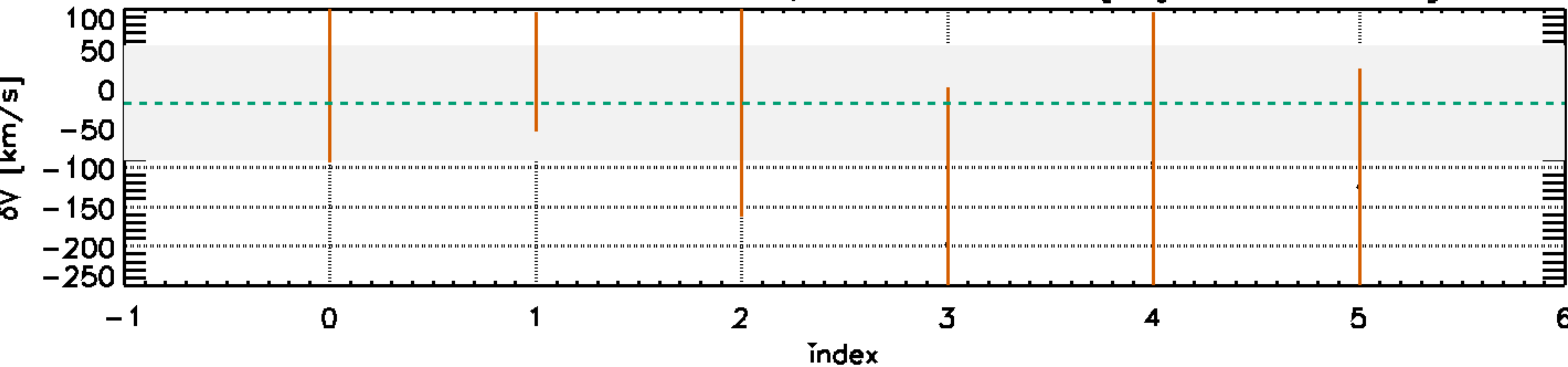
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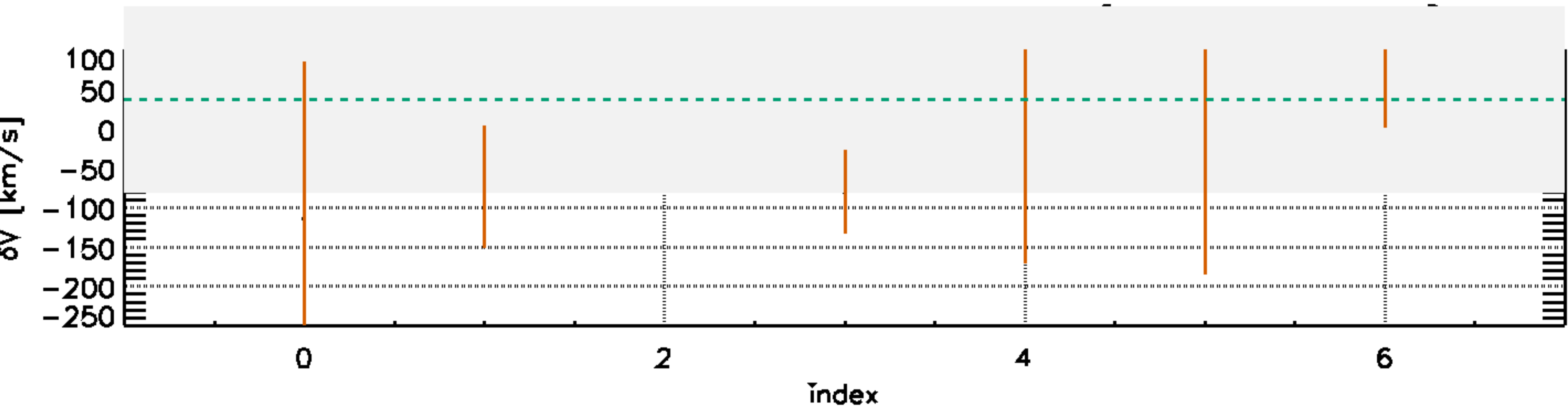
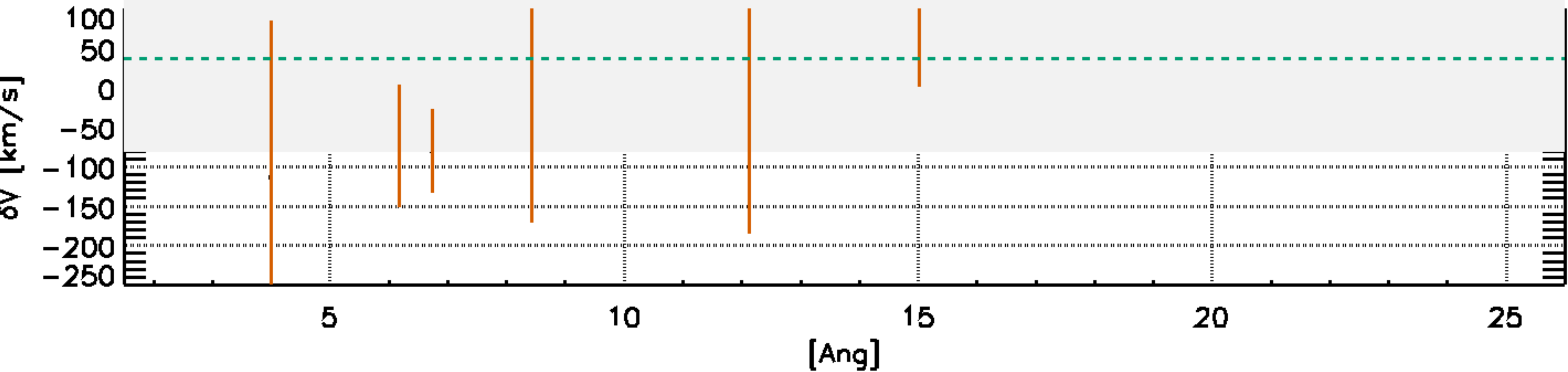
HR 1099 : h29278



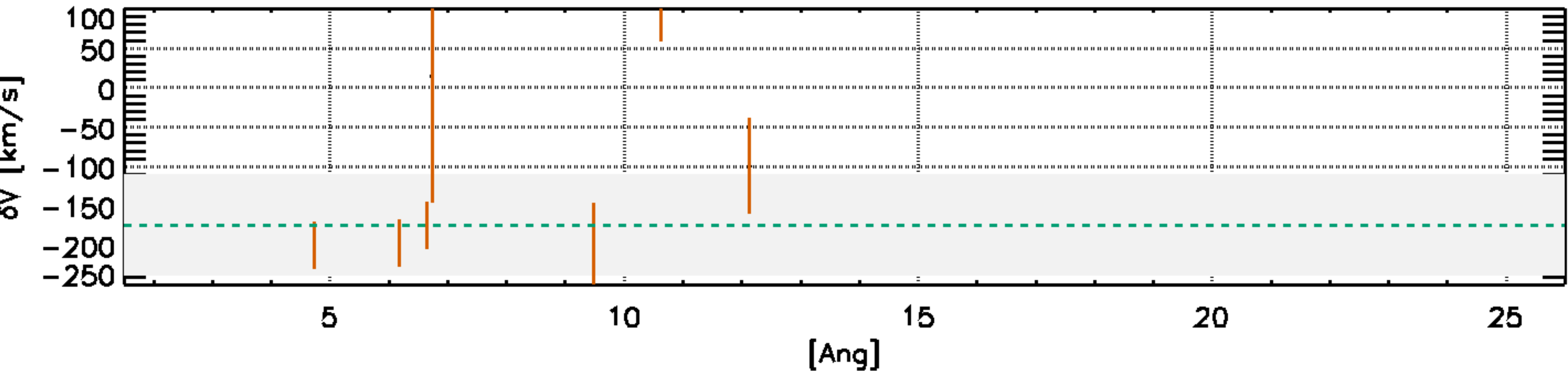
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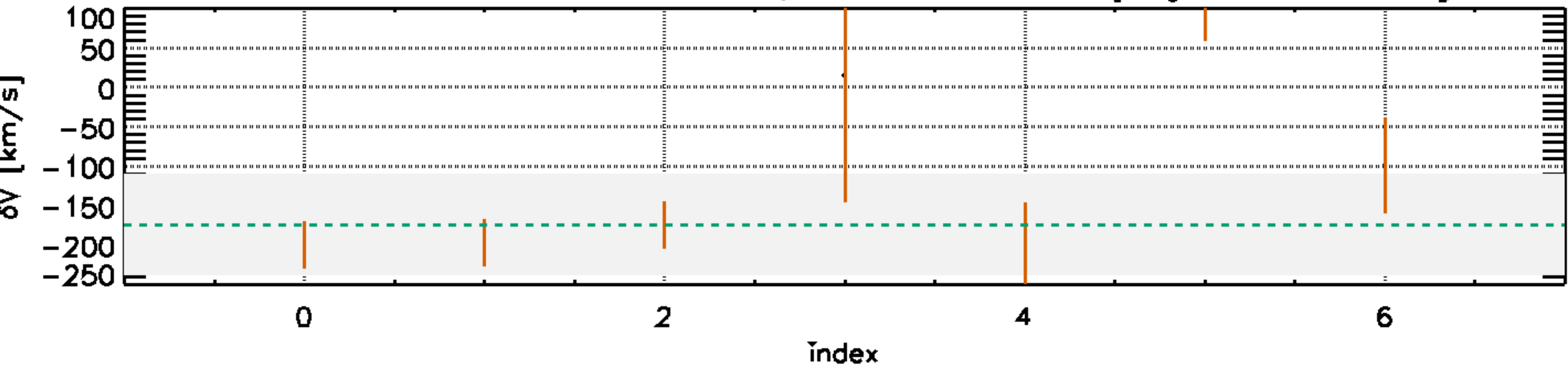
HR 1099 : m29278



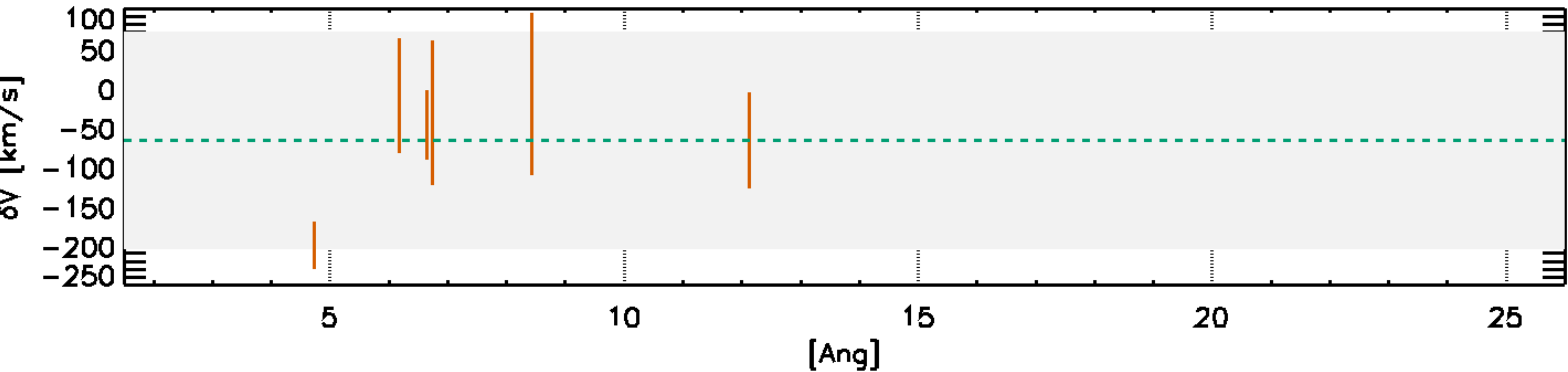
HR 1099 : h29315



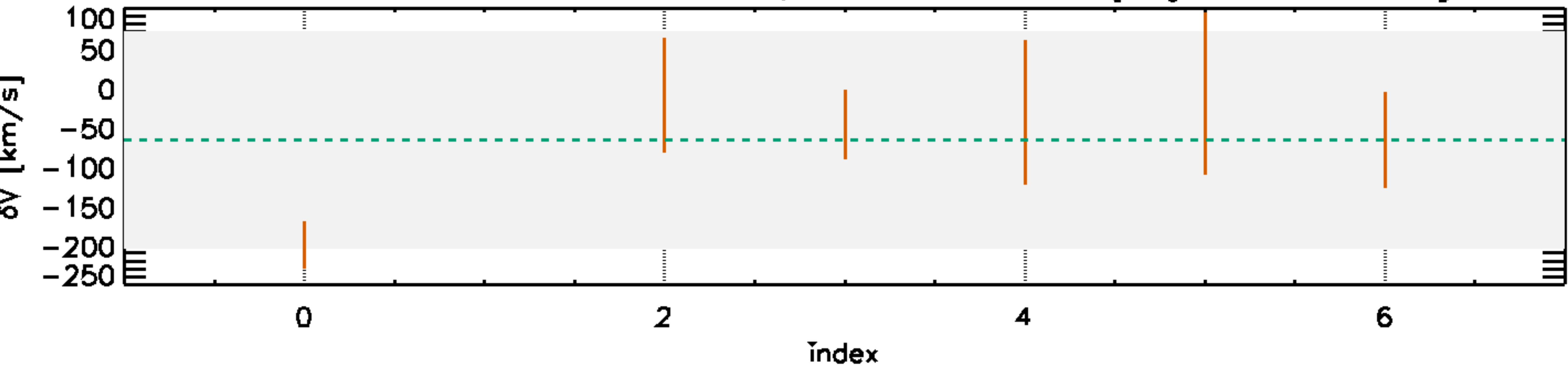
2024-03-09T01:54:36 orbital phase=0.0395930 [JD₀=2451142.943]



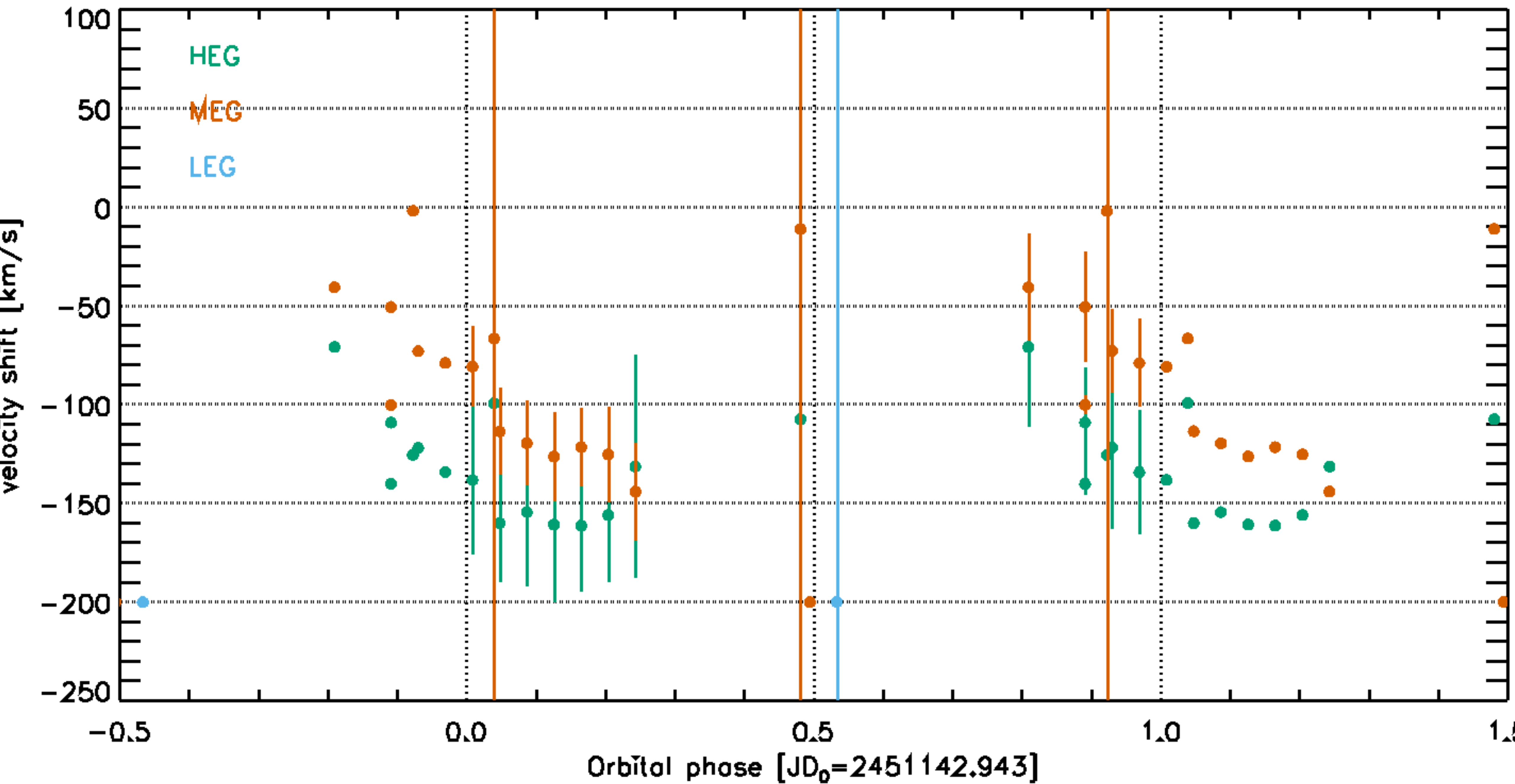
HR 1099 : m29315



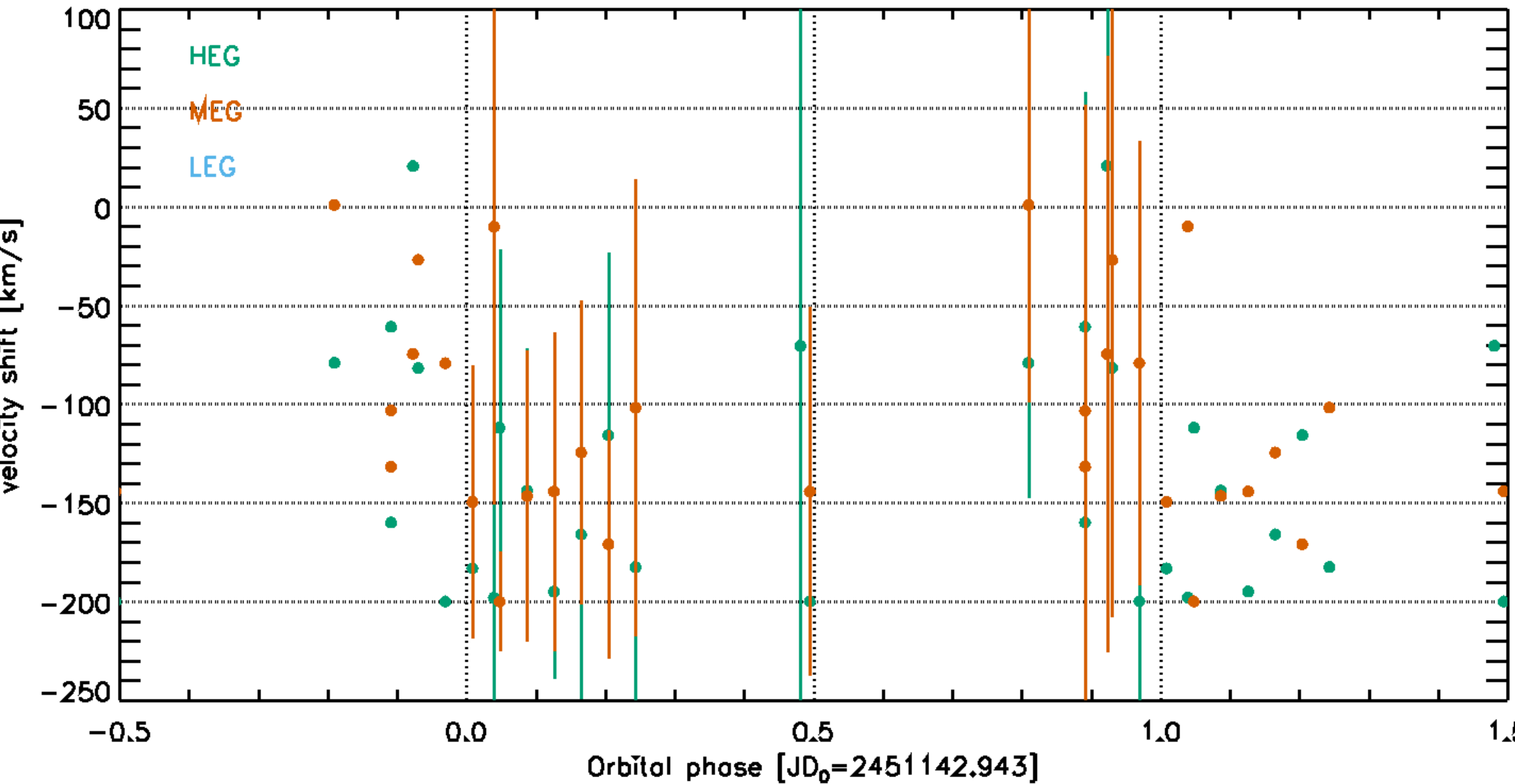
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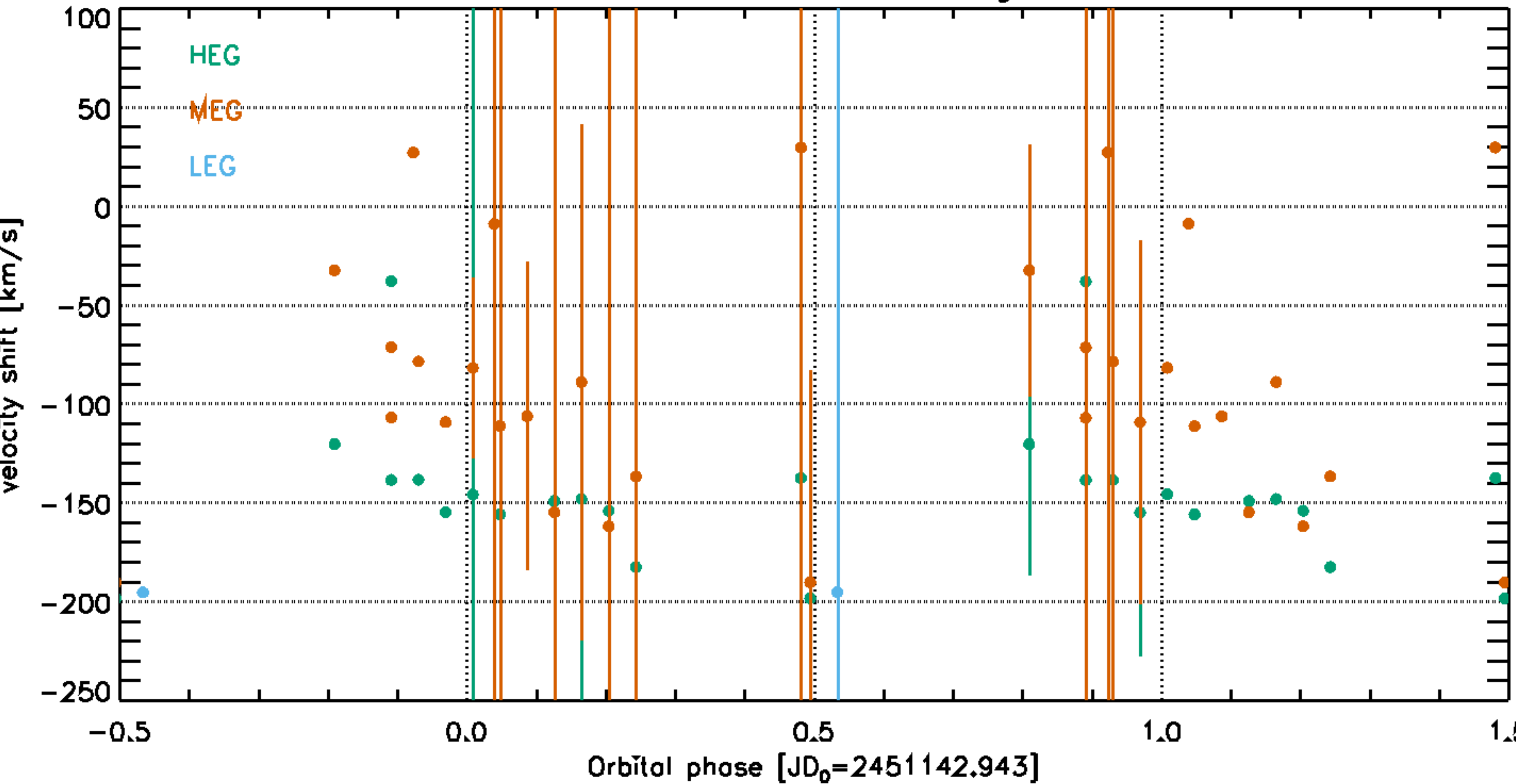
HR 1099 : measured shifts in Ne X 12.135



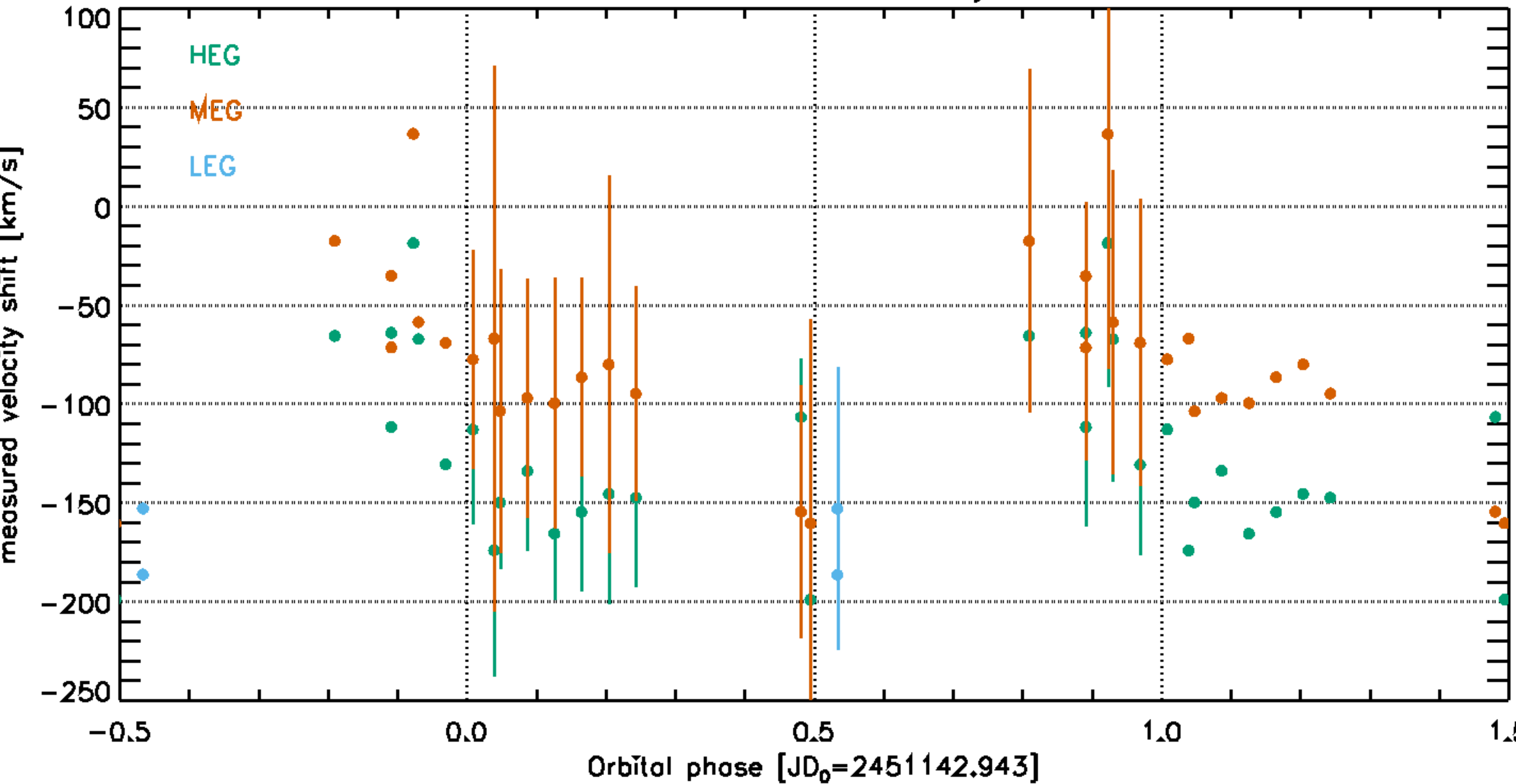
HR 1099 : measured shifts in Si XVI 6.183



HR 1099 ; measured shifts in Mg XII 8.422



HR 1099 measured velocity shifts



HR 1099 Earth barycenter vel corrected shifts

