

SALT Science Programs at Göttingen

Wolfram Kollatschny

Warszawa, May 2013



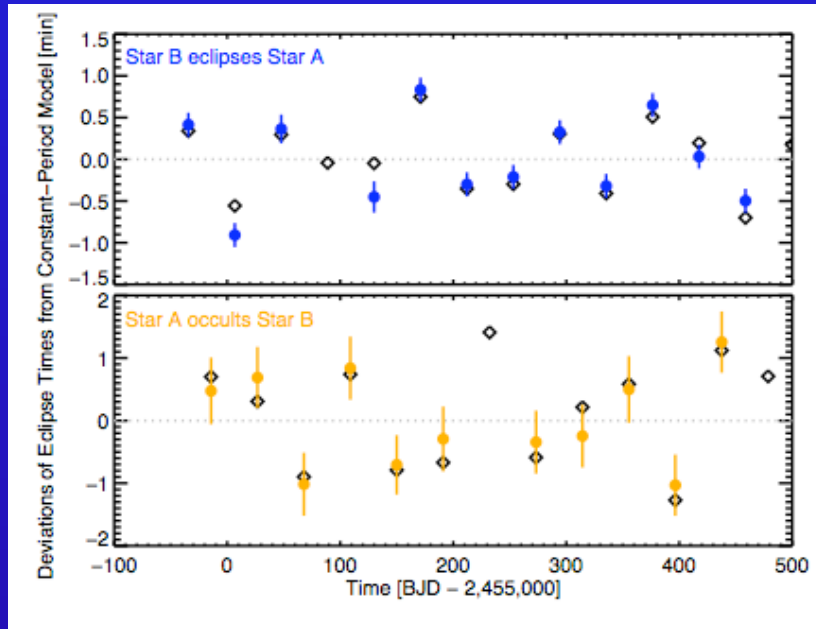
University Observatory



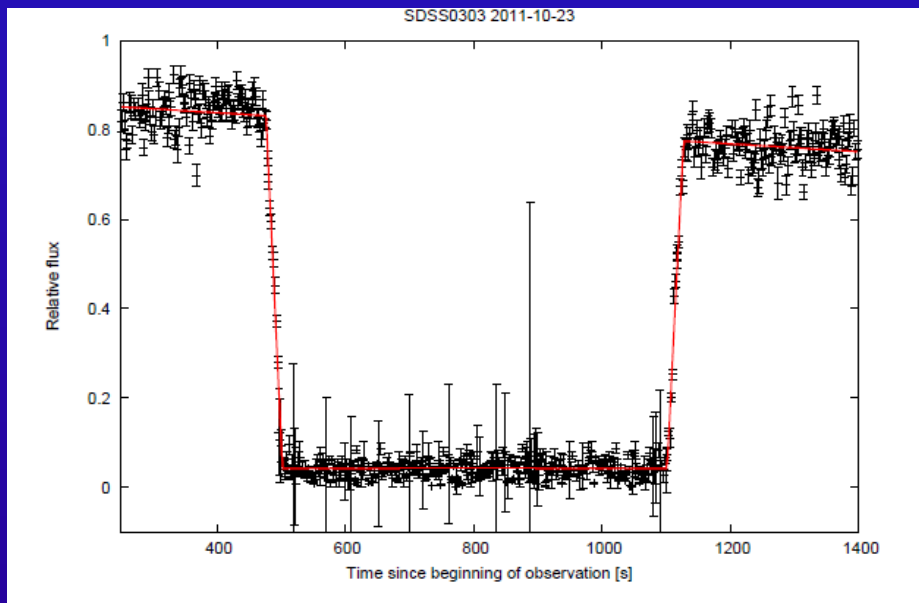
Institute for Astrophysics

Substellar companions to common envelope eclipsing binaries (Stefan Dreizler et al.)

Kepler 16 – transiting planet in an eclipsing binary (Doyle et al., 2011)



SALT:- eclipse of WD by M-star
- deviations of eclipse time due to planets

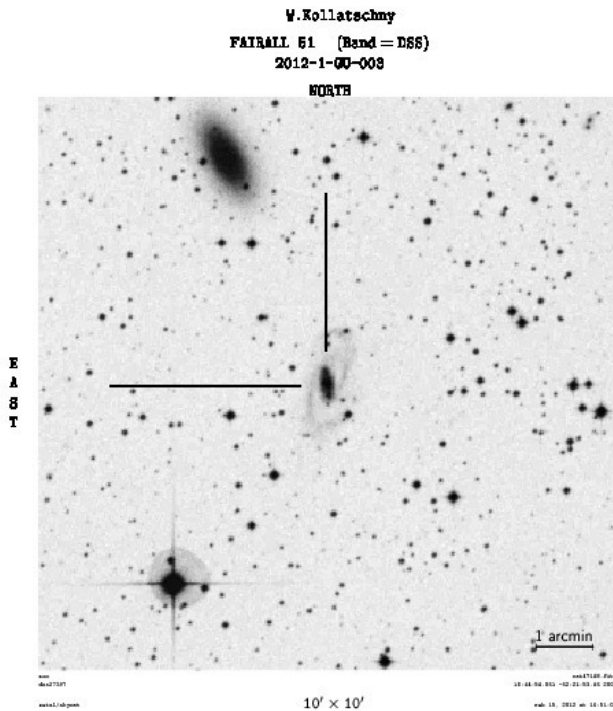


Spectral variability of Fairall 51

- Seyfert 1 galaxy

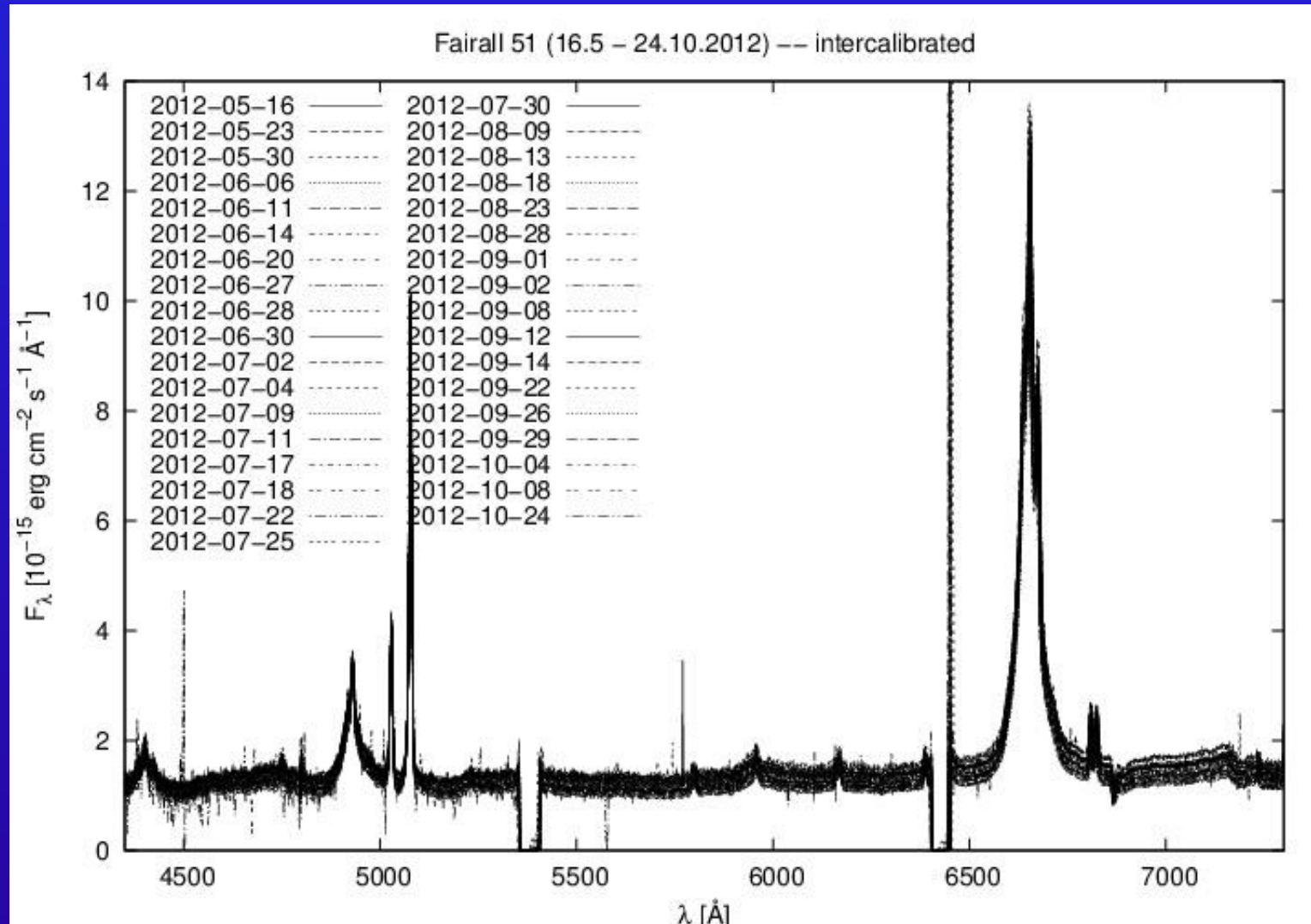
- $m_v \sim 15$

- 35 SALT spectra between May 16 and October 24, 2012



Spectral variability of Fairall 51

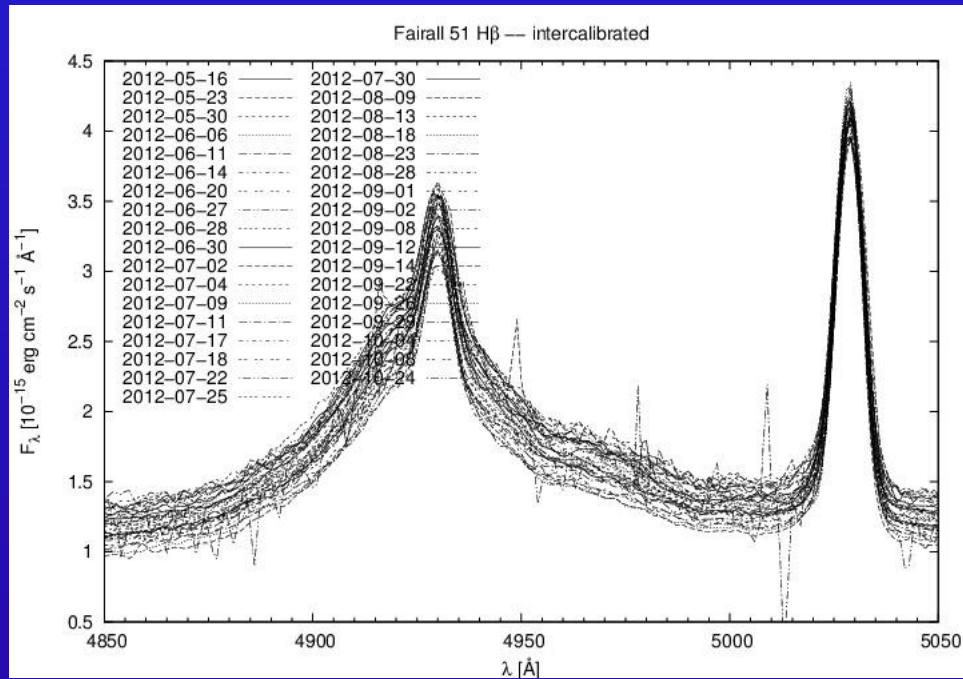
SALT spectra taken between May and October, 2012



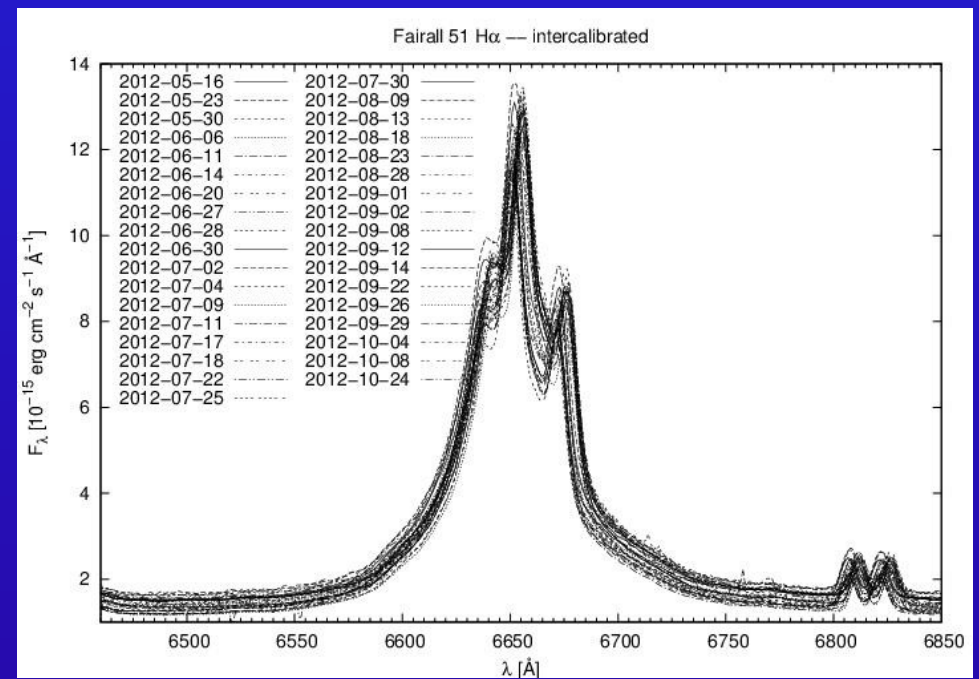
calibrated with respect to the [OIII] lines

Line and cont. intensity variations in Fairall 51

H β region

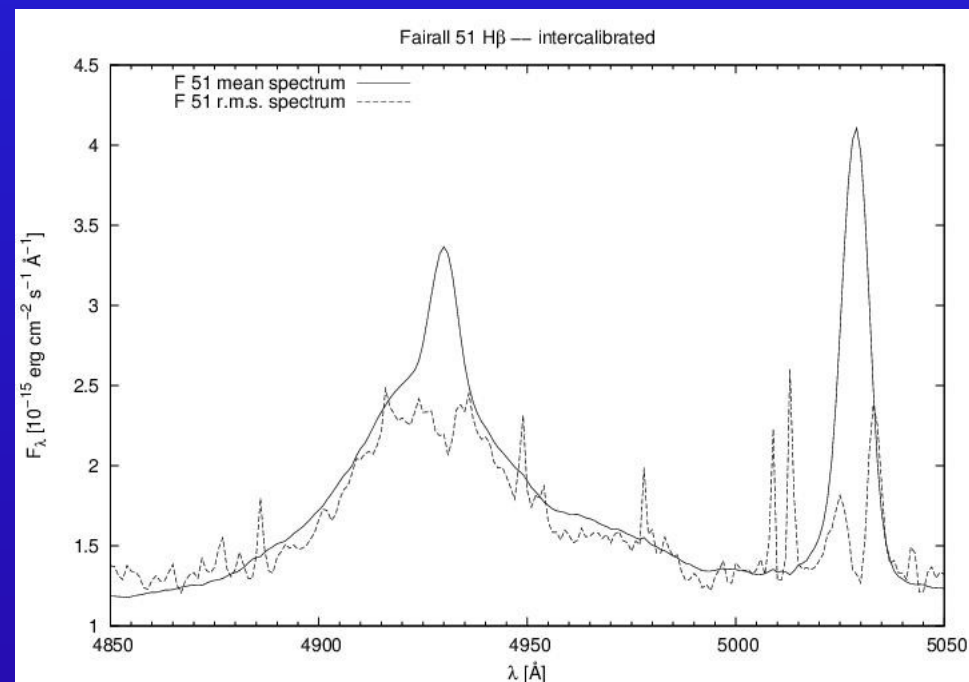
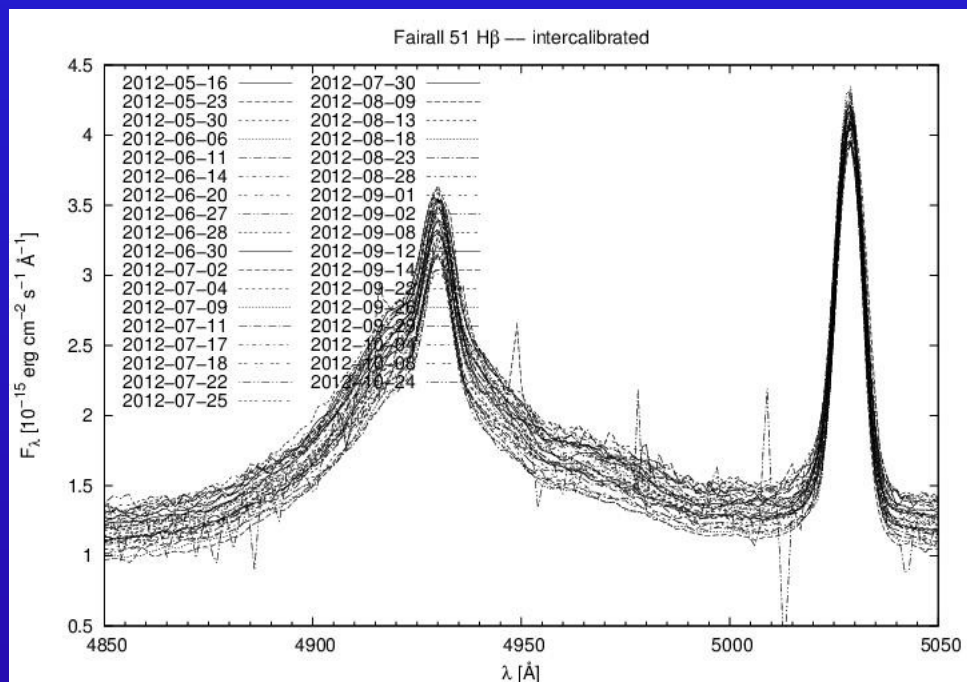


H α region



calibrated with respect to the [OIII] lines

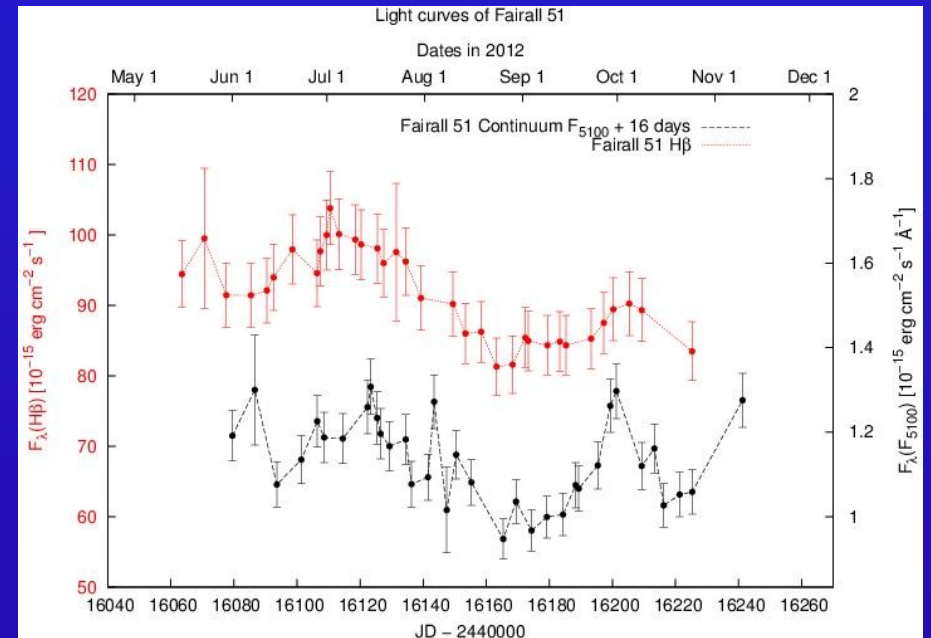
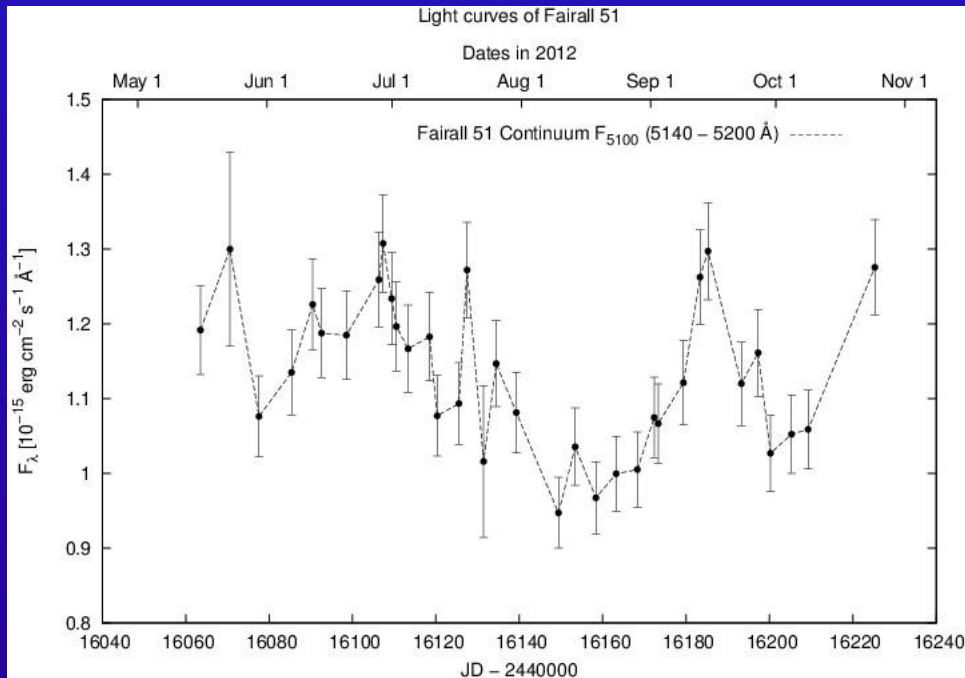
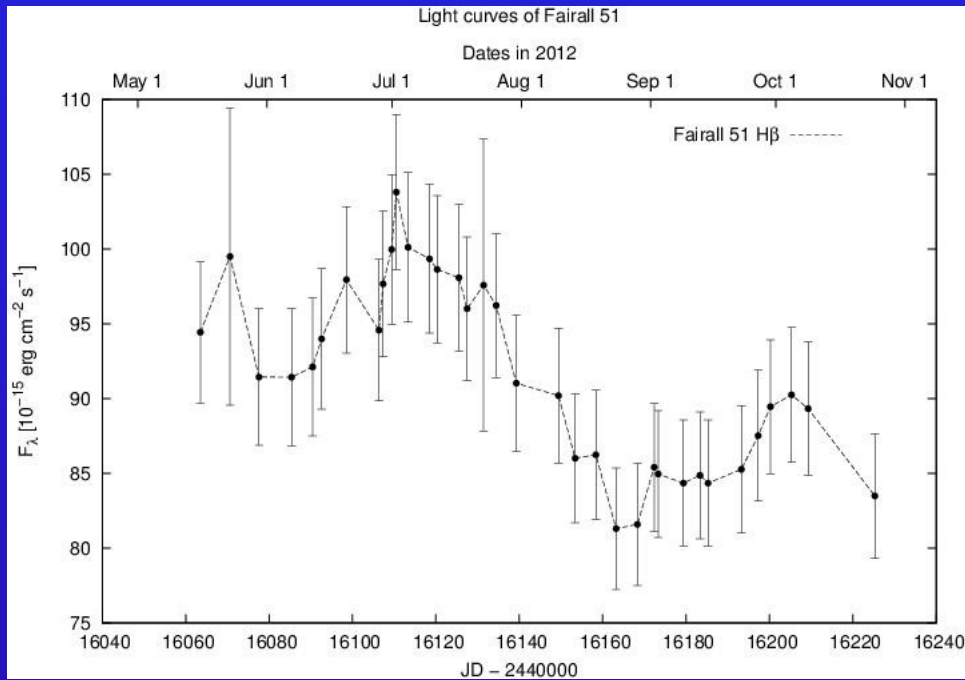
Line profile variability in Fairall 51



normalized mean and rms line profiles

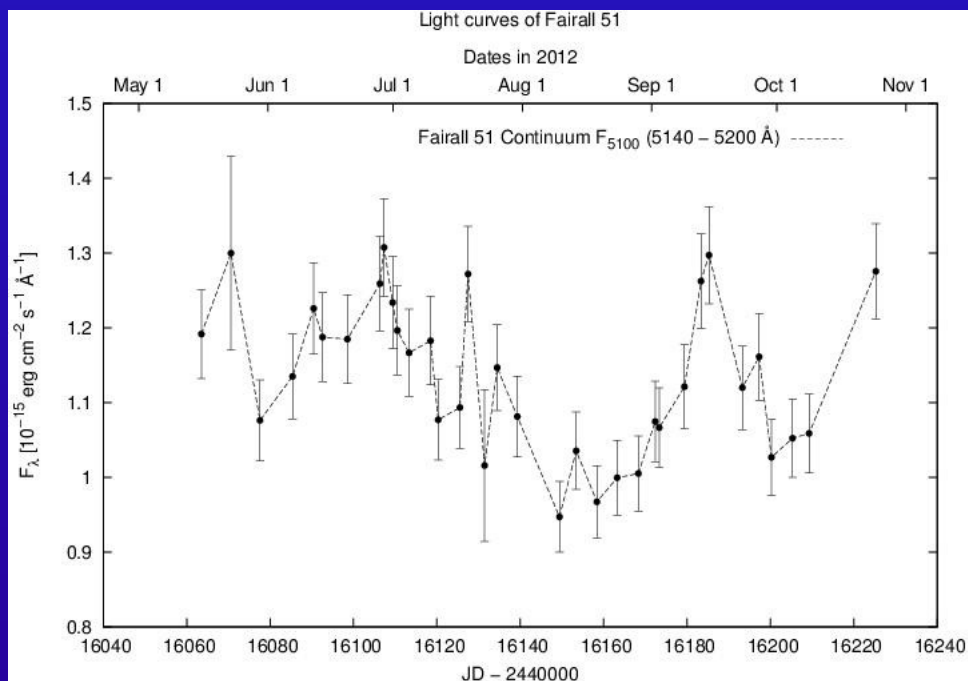
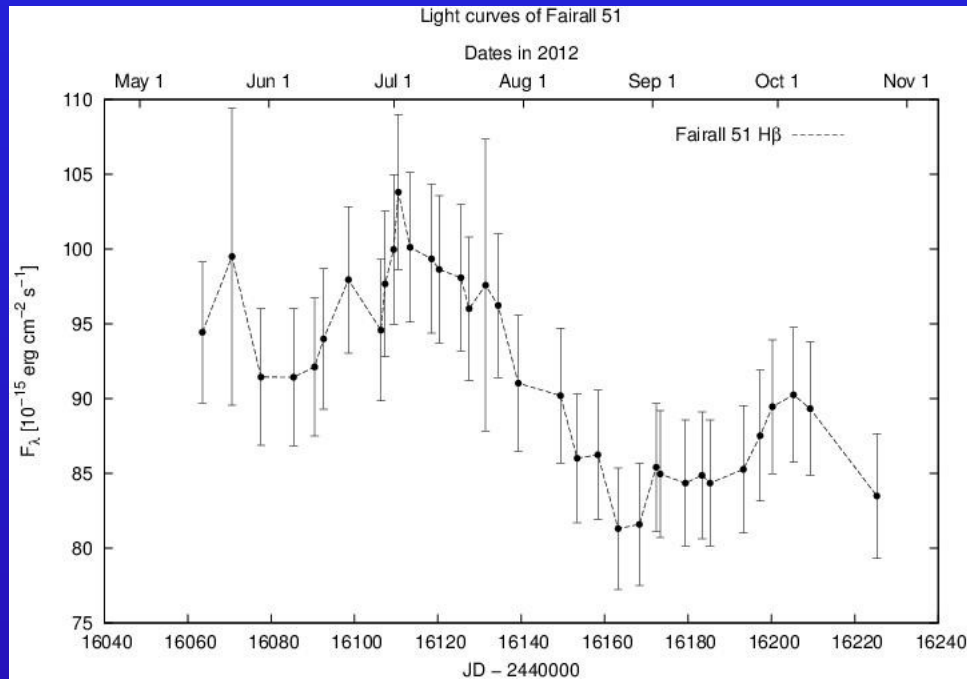
- the rms spectrum shows the variable part of the spectrum

H β and continuum light curves in Fairall 51

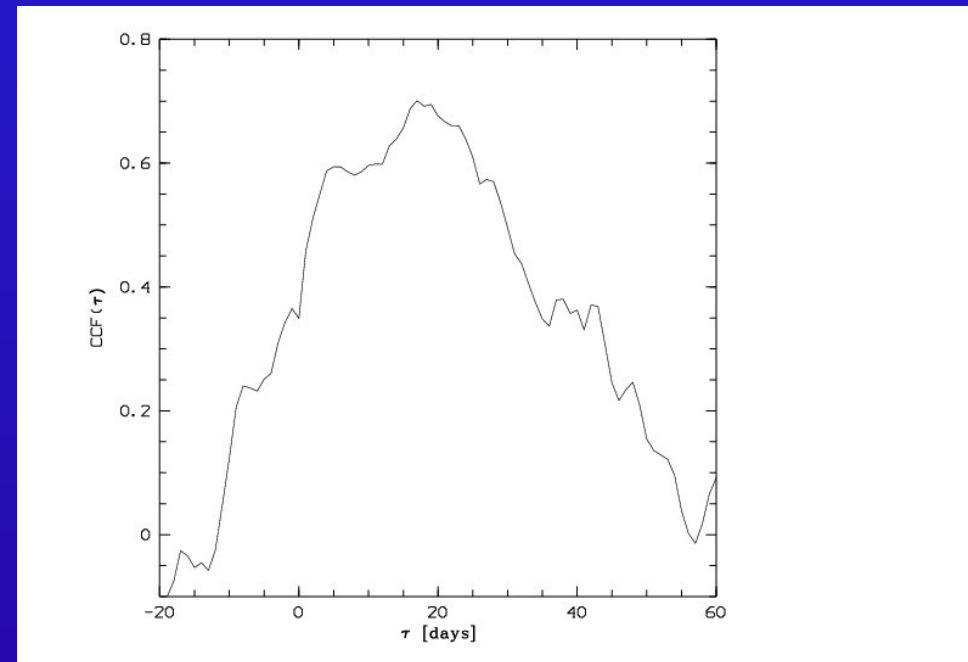


*H β and continuum light curves:
continuum light curve delayed by
16 light days*

H β and continuum light curves in Fairall 51



Cros-correlation function of H β Ic. with respect to the continuum Ic.



mean distance of H β line emitting region: 16 ± 5 light days

