

# Hi

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Kepler magnitudes for stellar sources are estimated to be equivalent to the combination of SDSS r and g bandpasses. The relation in equation (1) is empirically calculated by Smith et al. ApJ 2002).

$$K_p = 0.8mag_r + 0.2mag_g \quad (1)$$

However, we do not work in magnitudes, we use reprocessed k2 lightcurves provided as a photocurrent.

$$f_{kep} = 10^{-0.4(K_p - 12)} * f_{12} \quad (2)$$

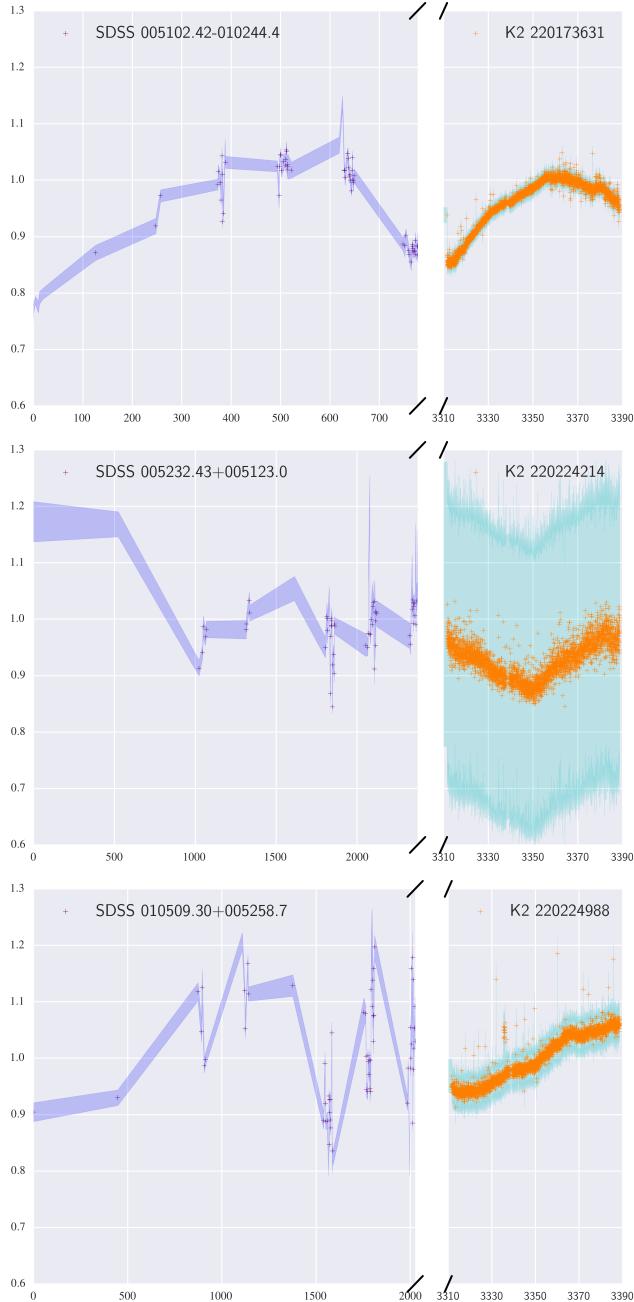
where  $f_{12} = 1.74 \times 10^5$  measured in electrons per second [e-/s].

We approximate the relation in equation (1) as

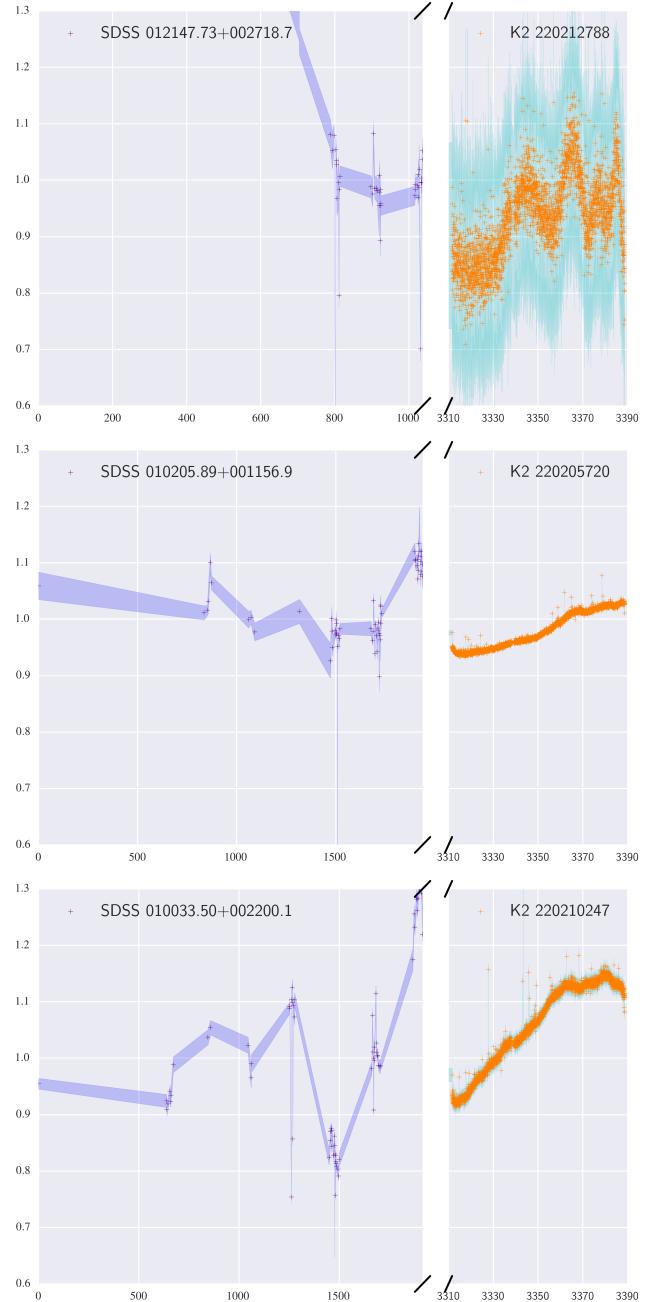
$$f_{kep} \sim 0.8fr + 0.2fg. \quad (3)$$

$$f_{SDSS} = \sinh \frac{\log(10.0)}{-2.5 * mag - \log(b_{band})} * 2 * b_{band} * f_0 \quad (4)$$

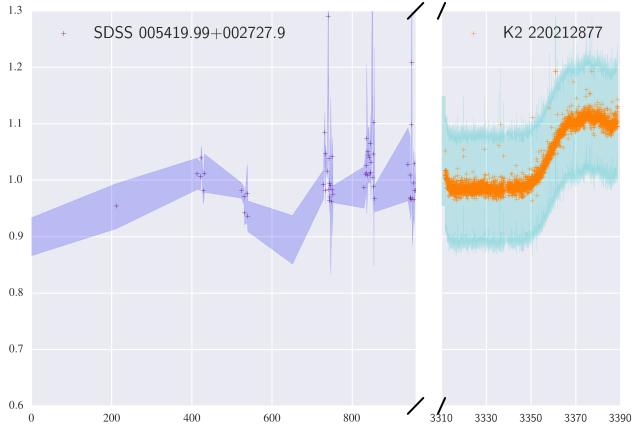
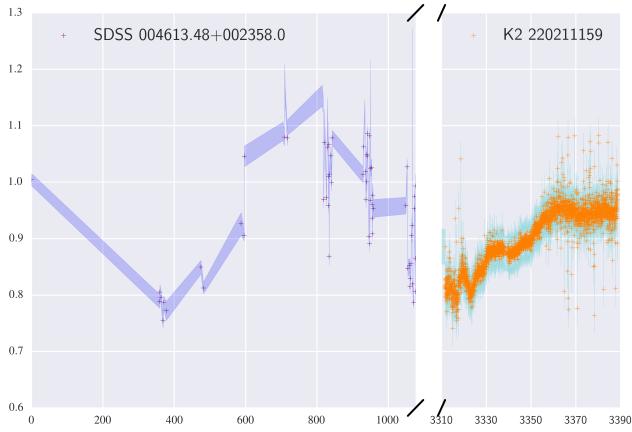
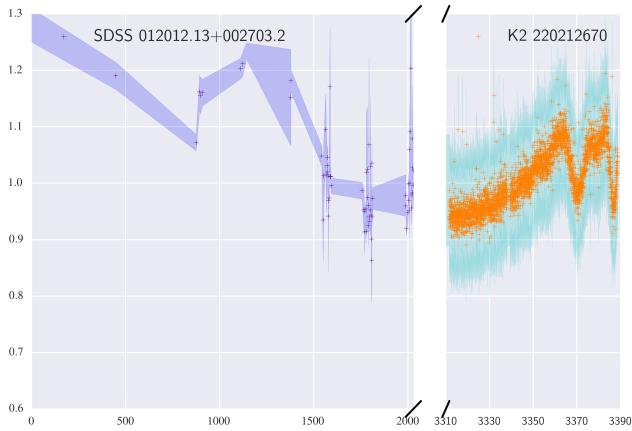
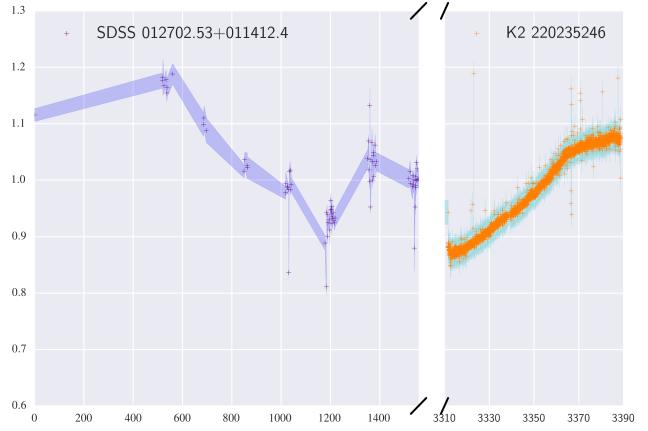
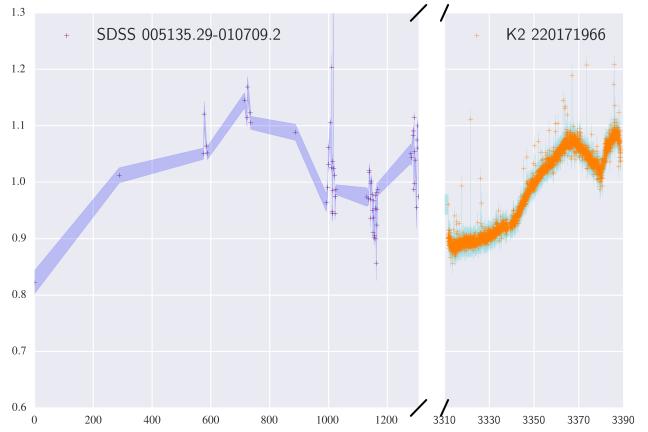
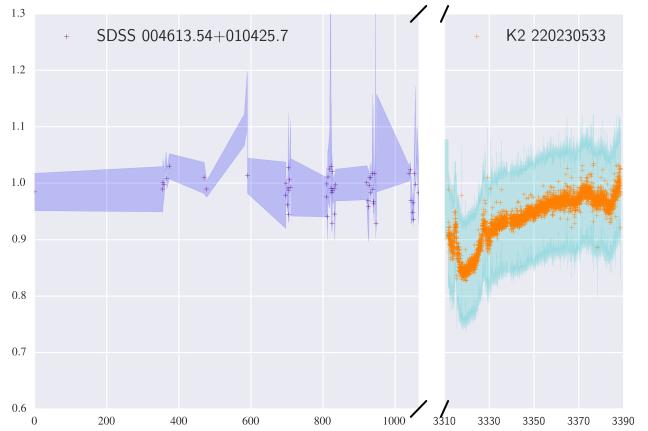
$$error = err * \frac{\log 10}{2.5 * 2 * b_{band}} \sqrt{1 + \frac{f}{(2 * b_{band} * f_0)^2 * f_0}} \quad (5)$$

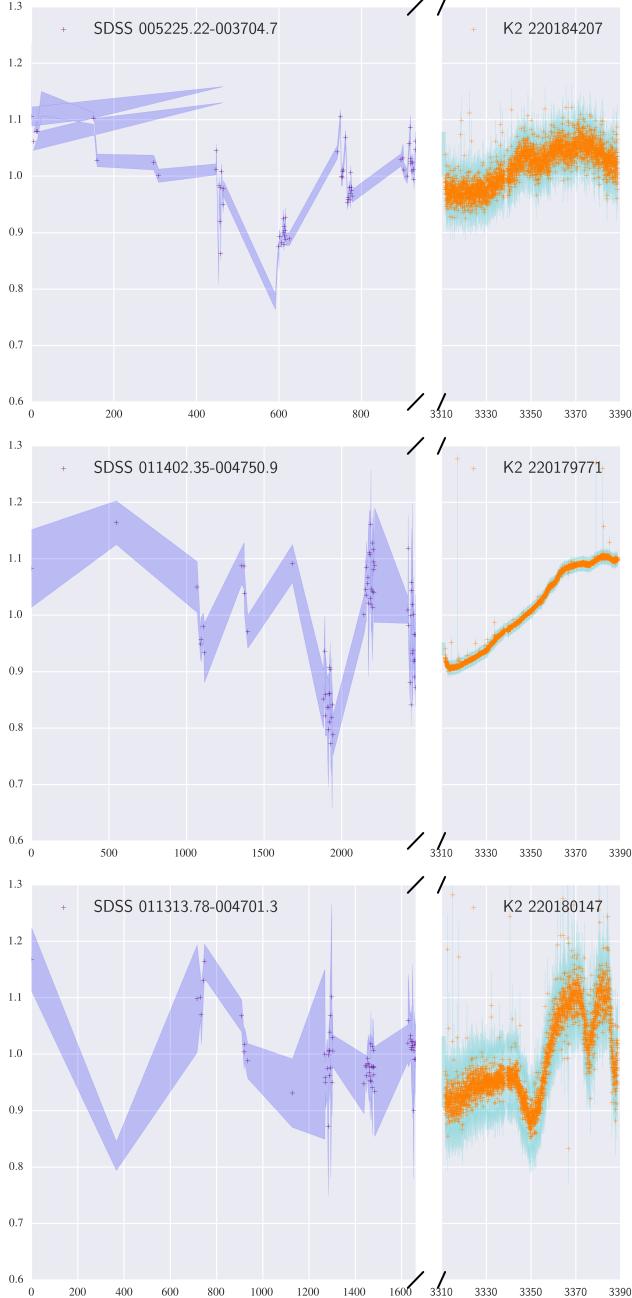


**Figure 1.**

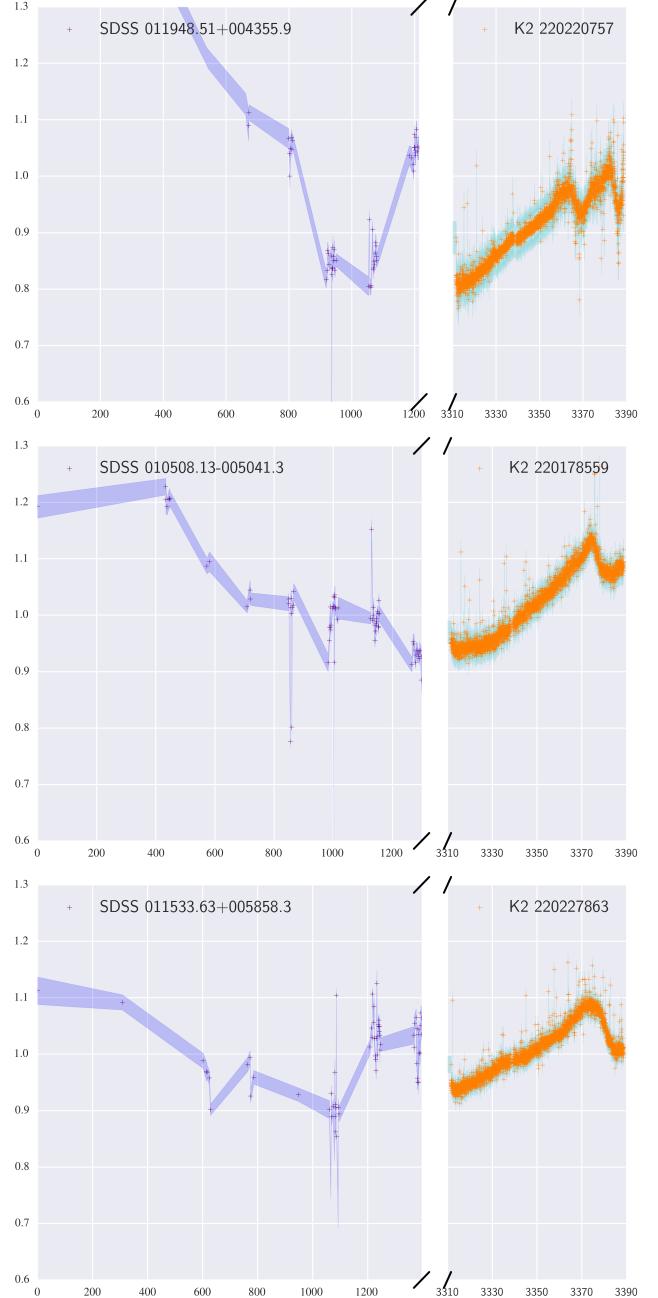


**Figure 2.**

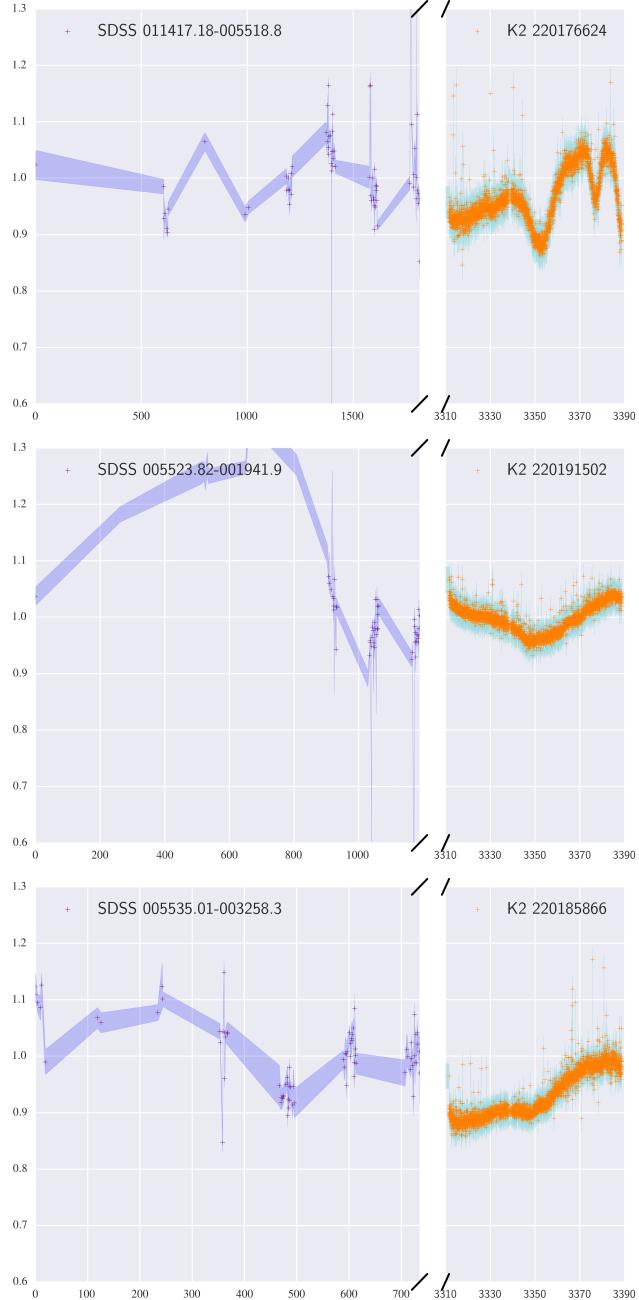
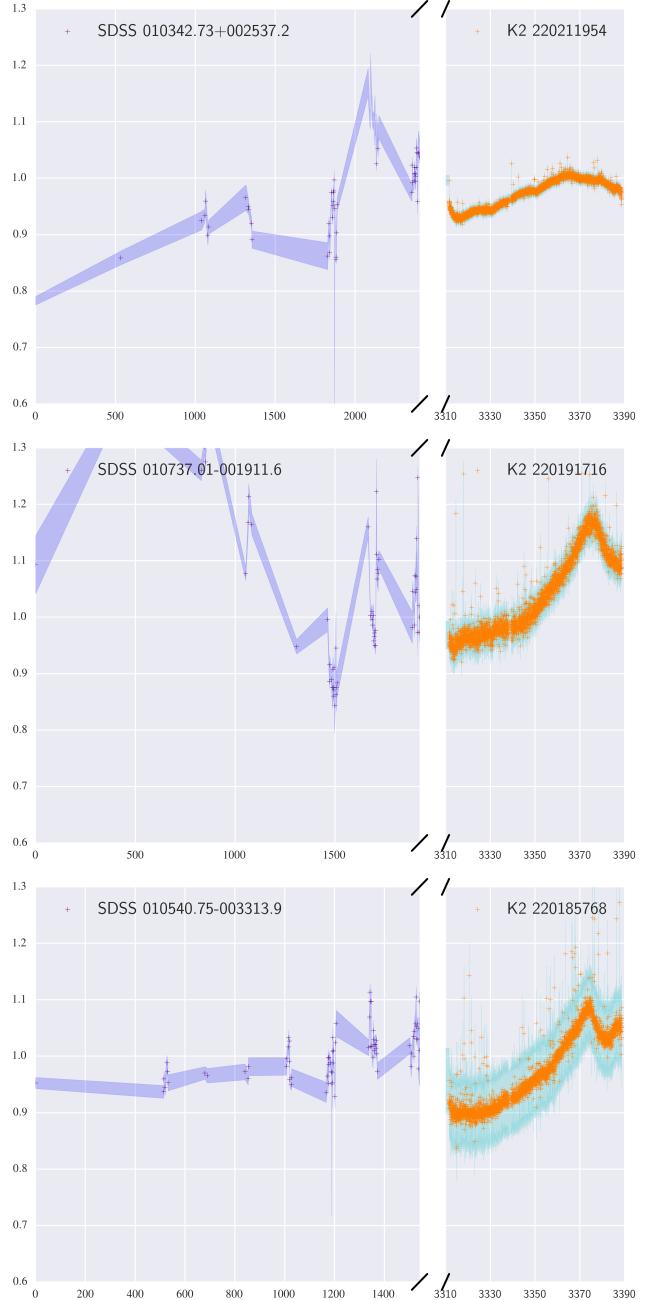
**Figure 3.****Figure 4.**

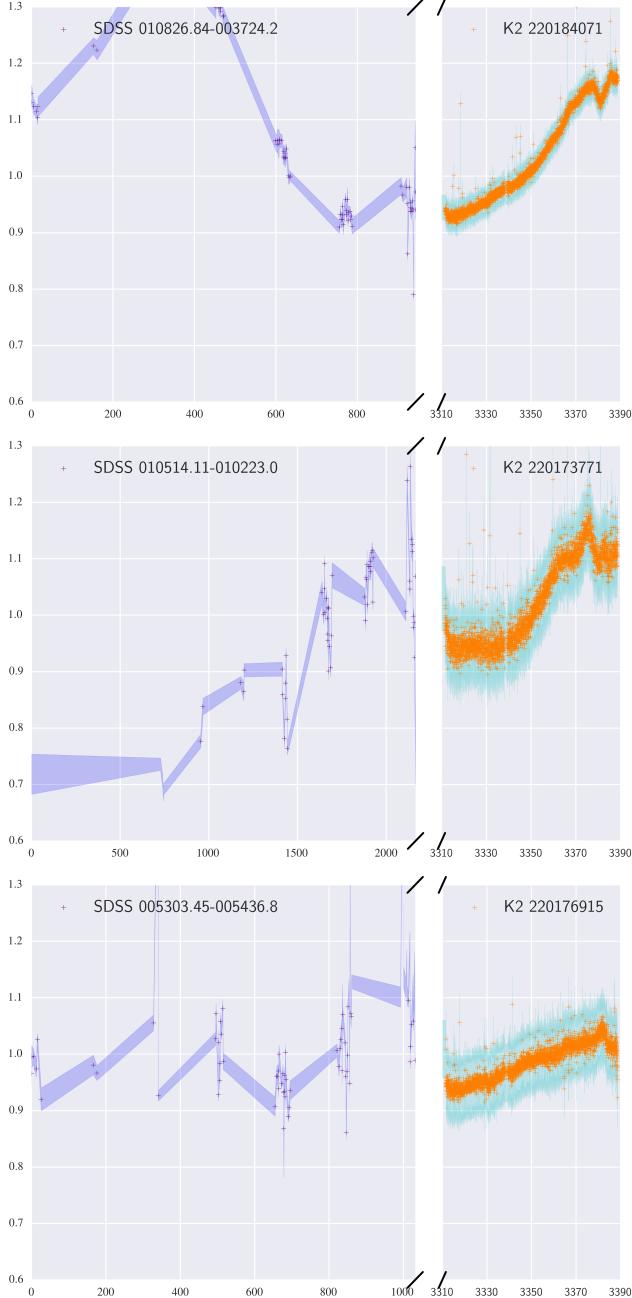


**Figure 5.**

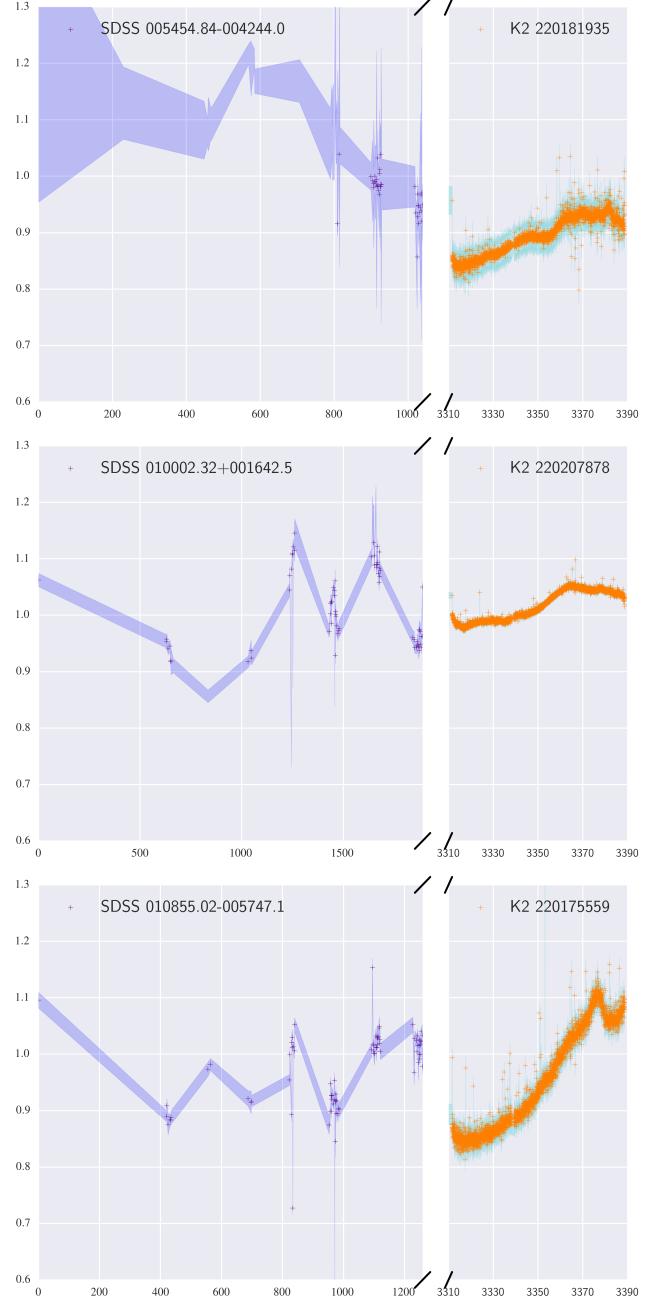


**Figure 6.**

**Figure 7.****Figure 8.**



**Figure 9.**



**Figure 10.**

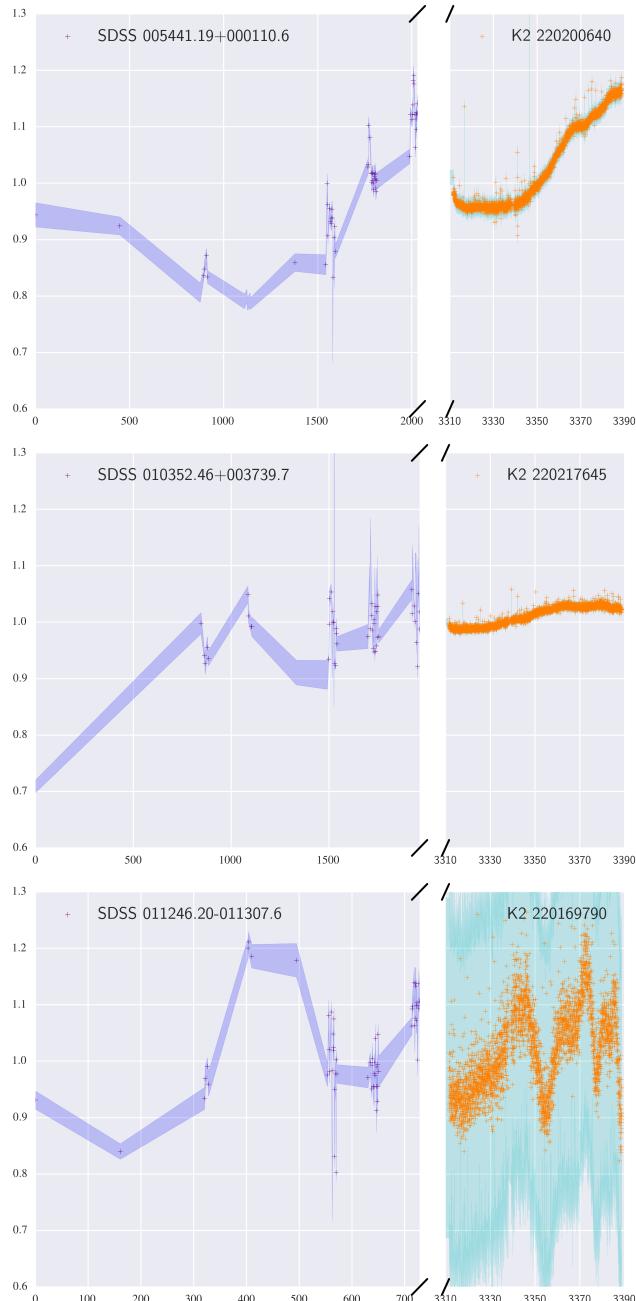
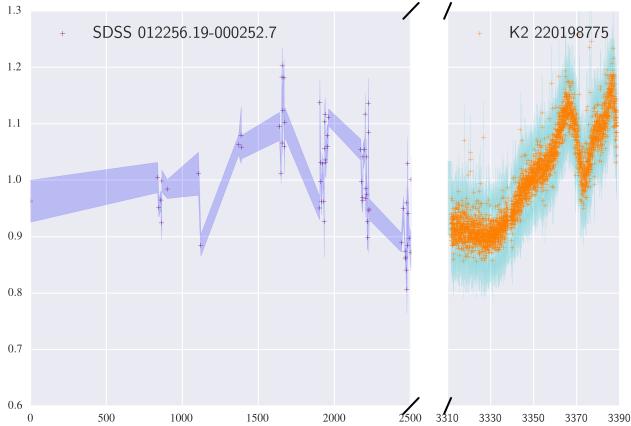


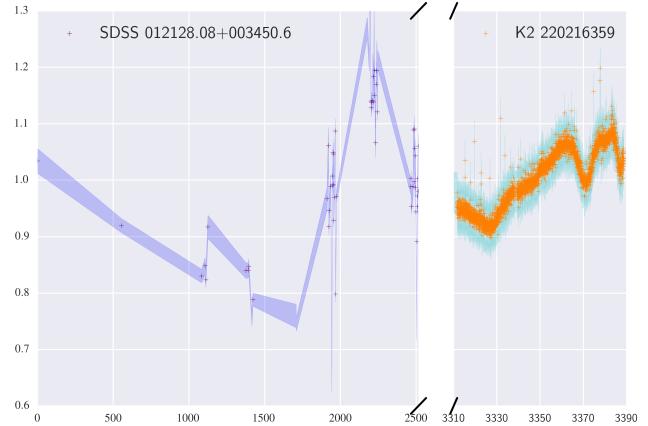
Figure 11.



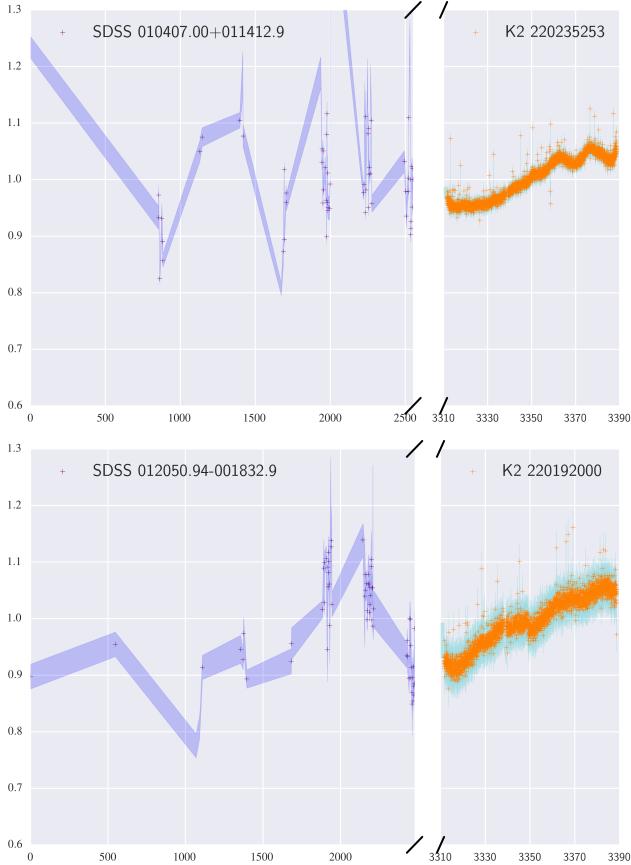
Figure 12.



**Figure 13.**



**Figure 15.**



**Figure 14.**