

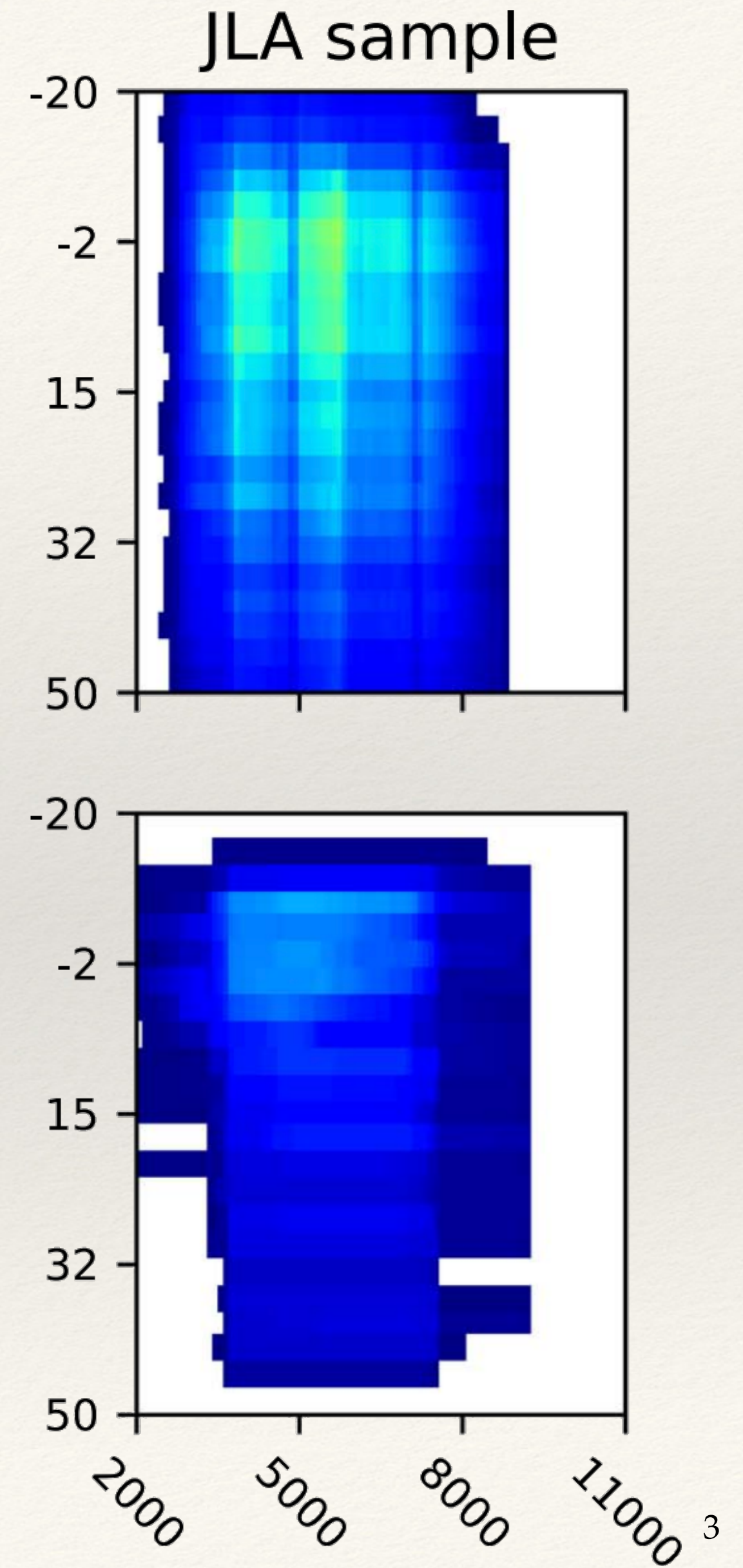
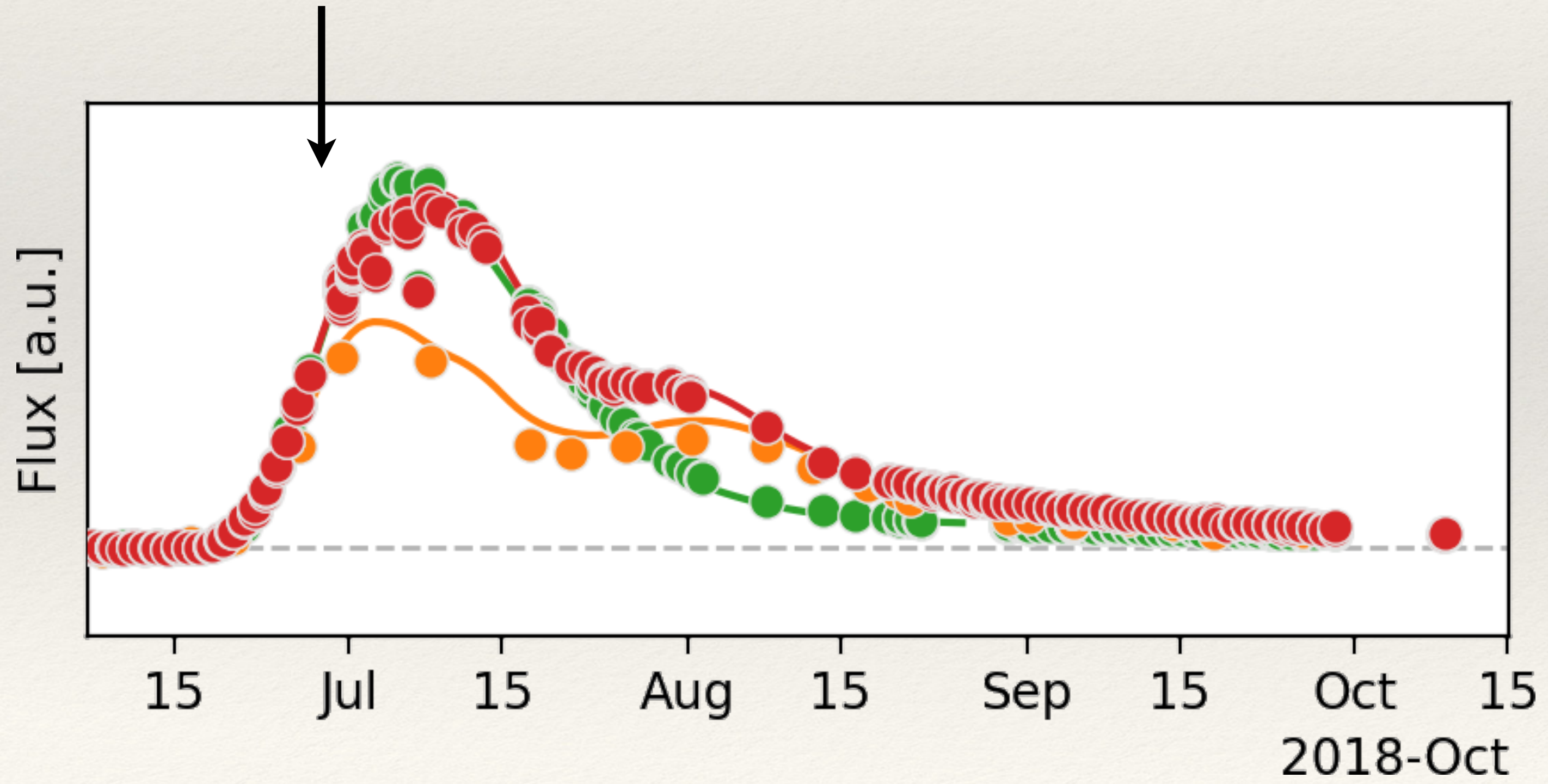


DR2 | Lightcurve residuals

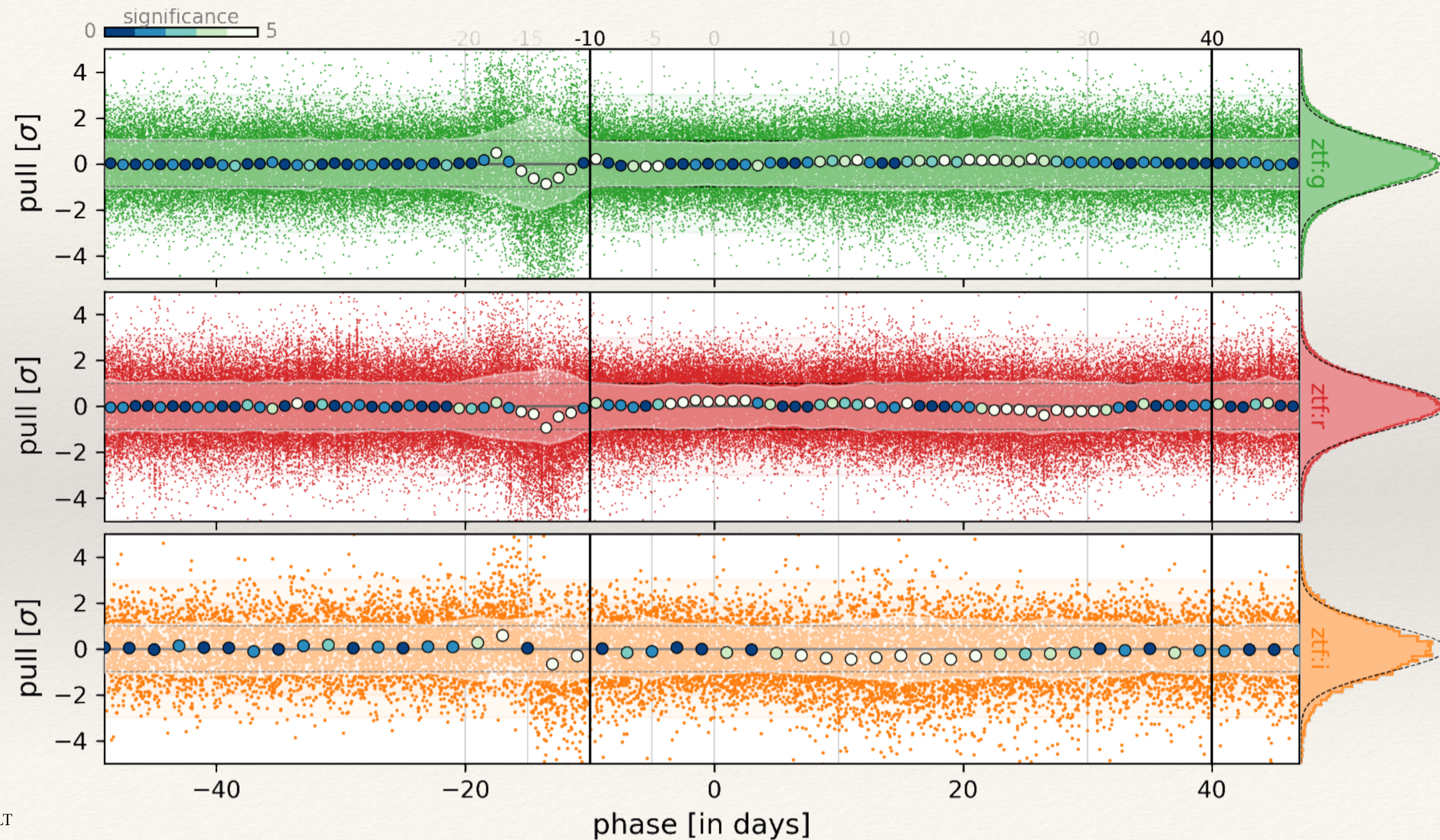
SALT | *what is it ?*

$$f_\lambda = \overset{\text{Amplitude (distance)}}{x_0} \times \overset{\text{Mean SN model}}{[M_0(p, \lambda) + \overset{\text{"Stretch"}}{x_1} M_1(p, \lambda) + \dots]} \times \exp[\overset{\text{color}}{c} \overset{\text{Constant color law}}{CL}(\lambda)],$$

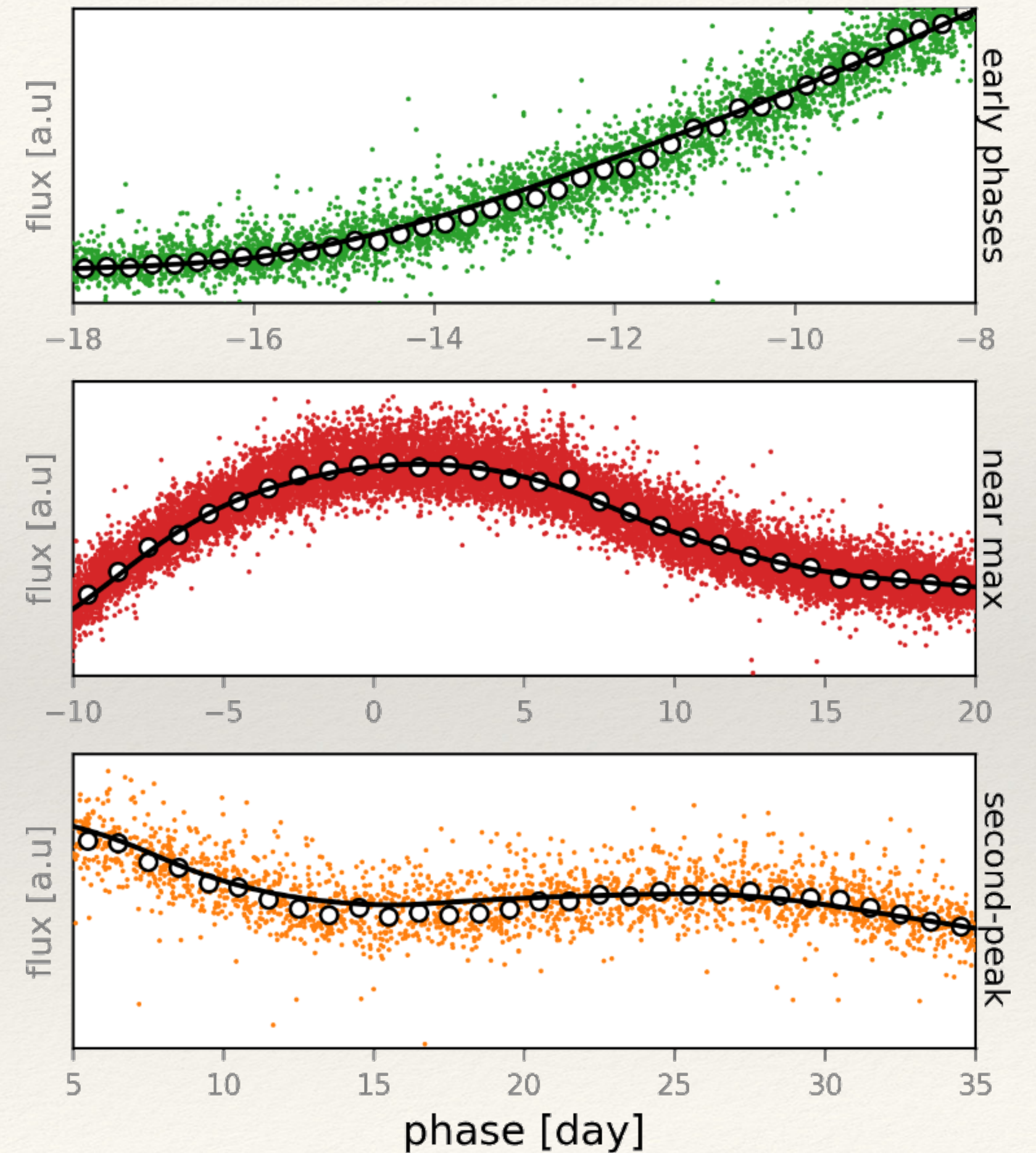
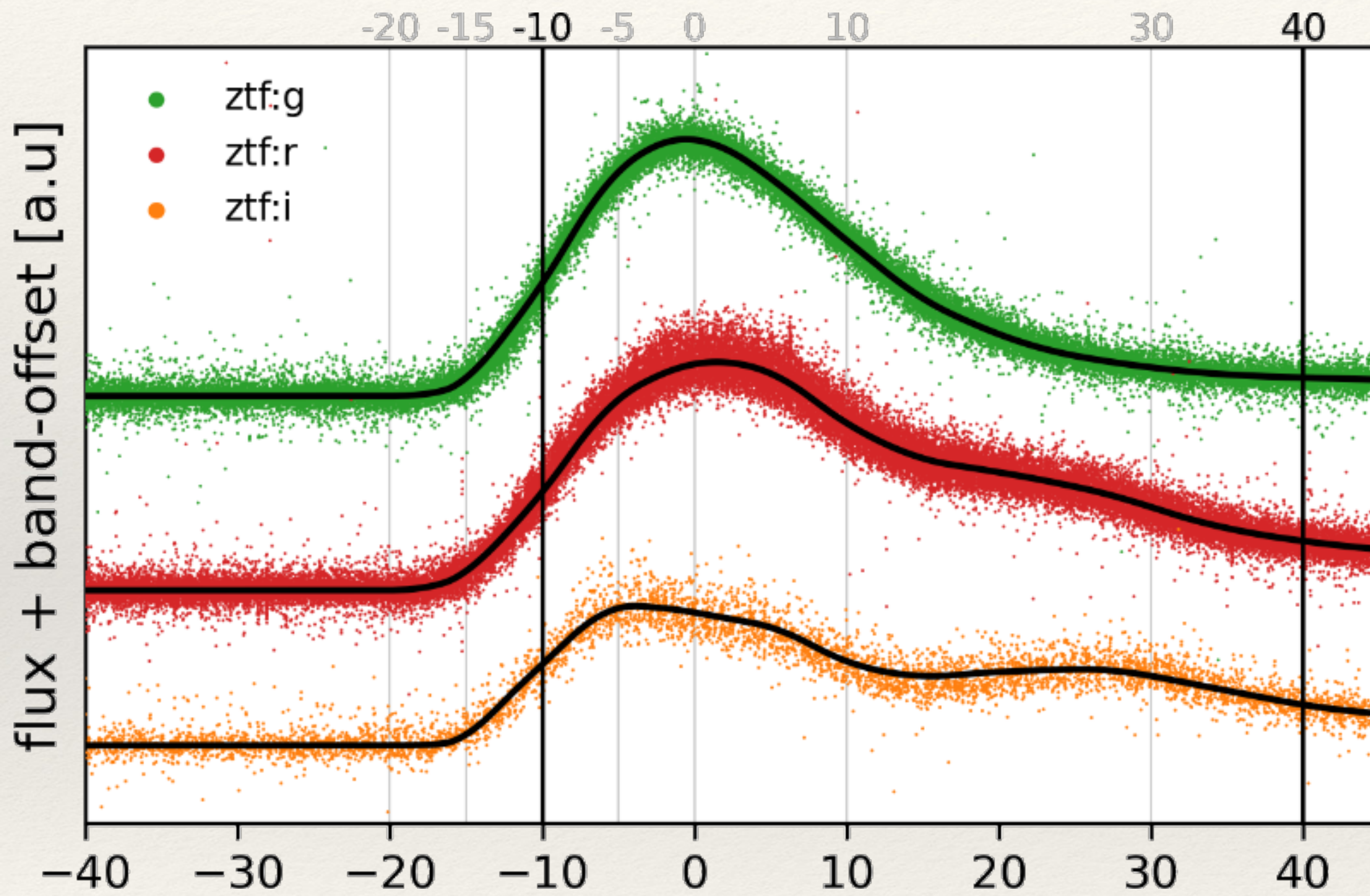
← Training ~450 SNeIa



Lightcurve residuals

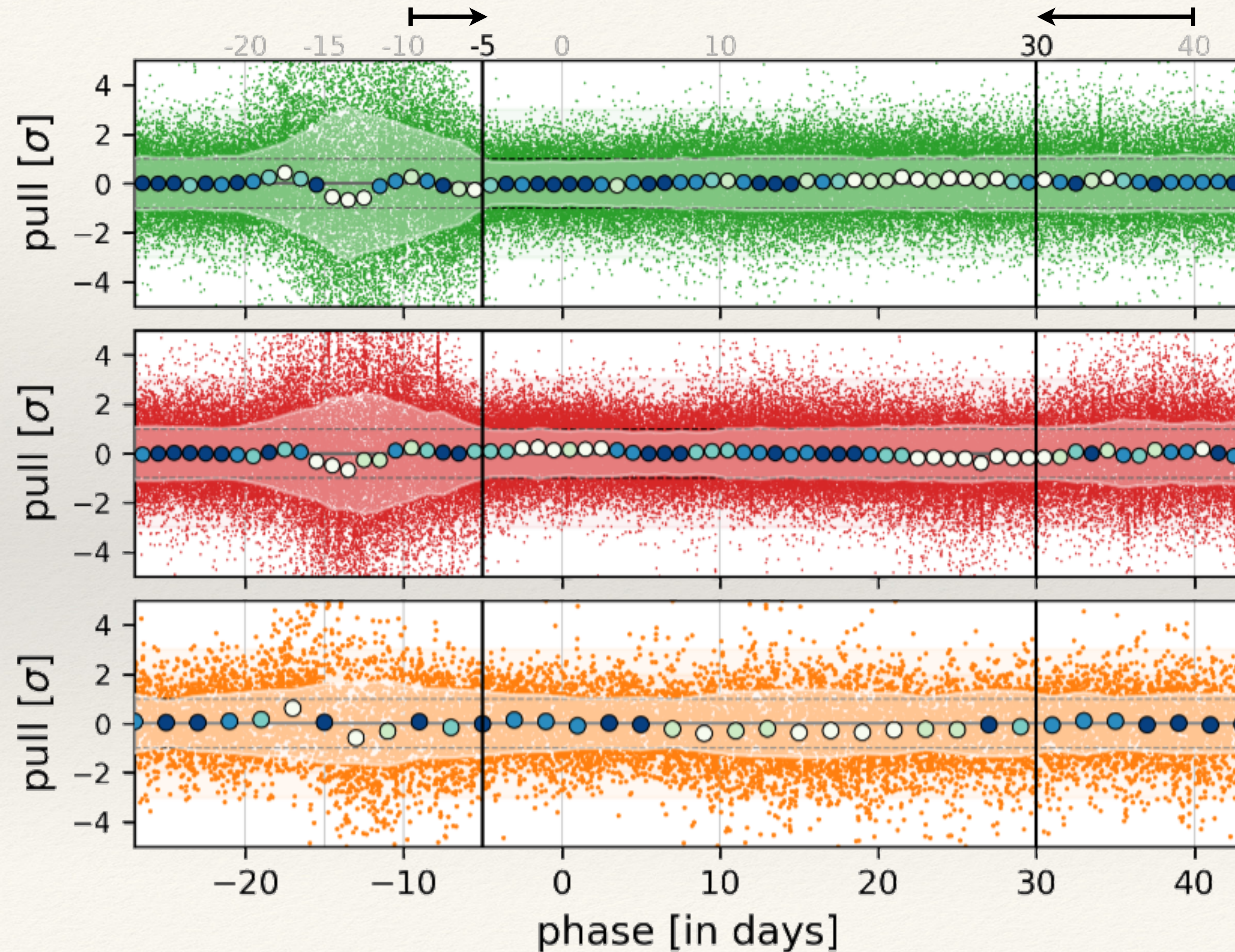


Let's see how it looks

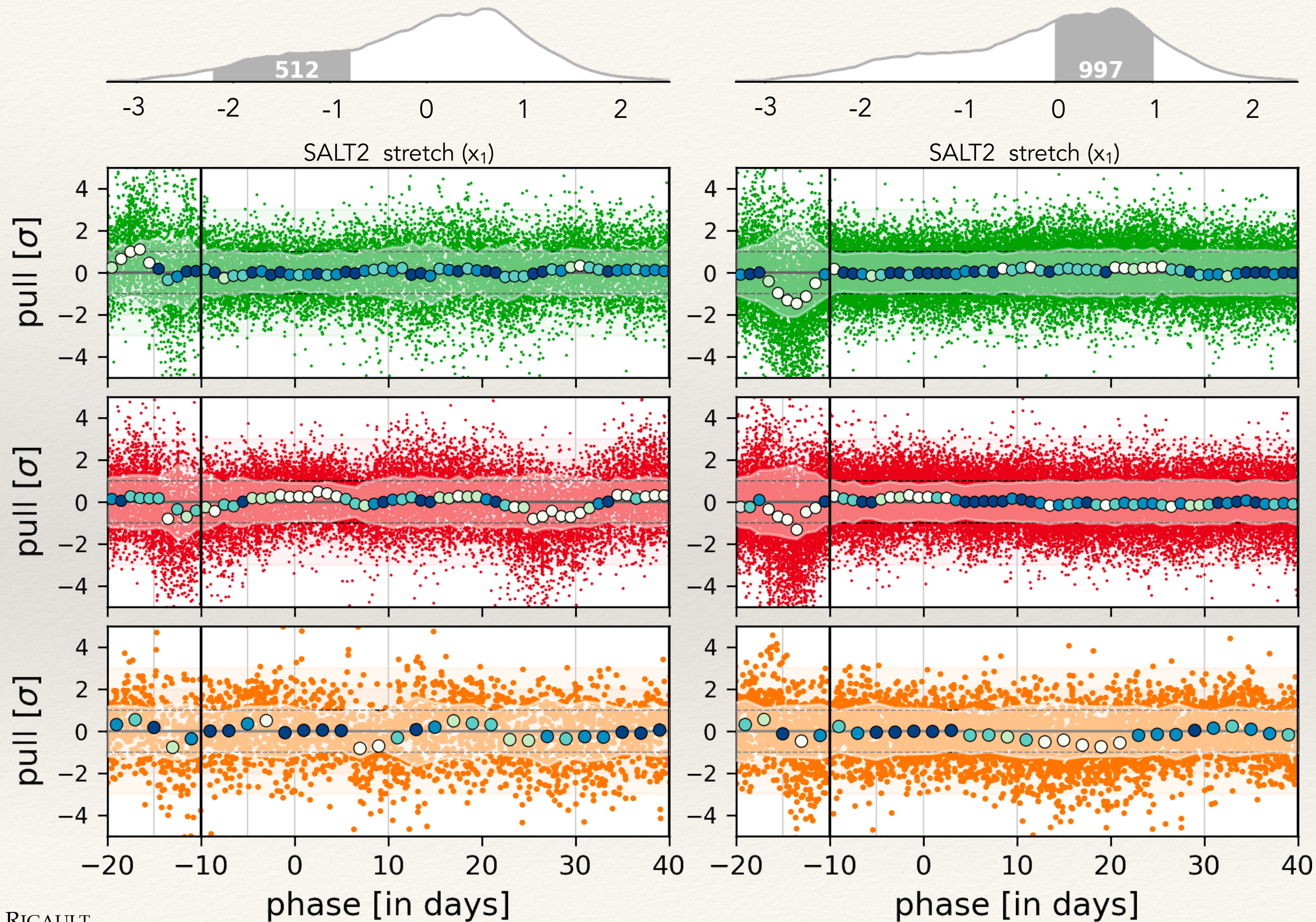


Changing phase range

used to define $[-10, +40]$



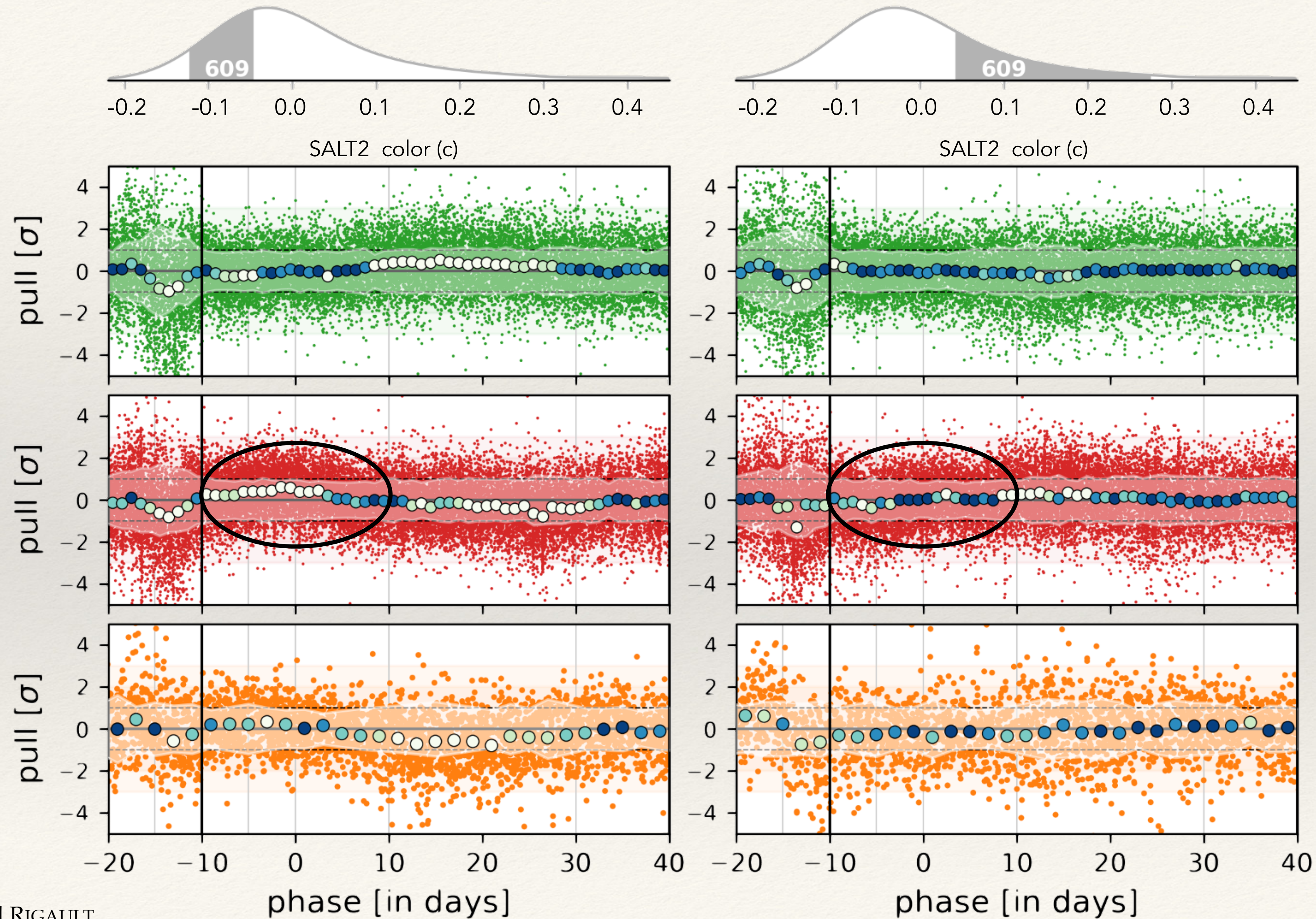
Lightcurve residual vs. *Stretch*



Much stronger deviation
for low-stretch

Need more training data

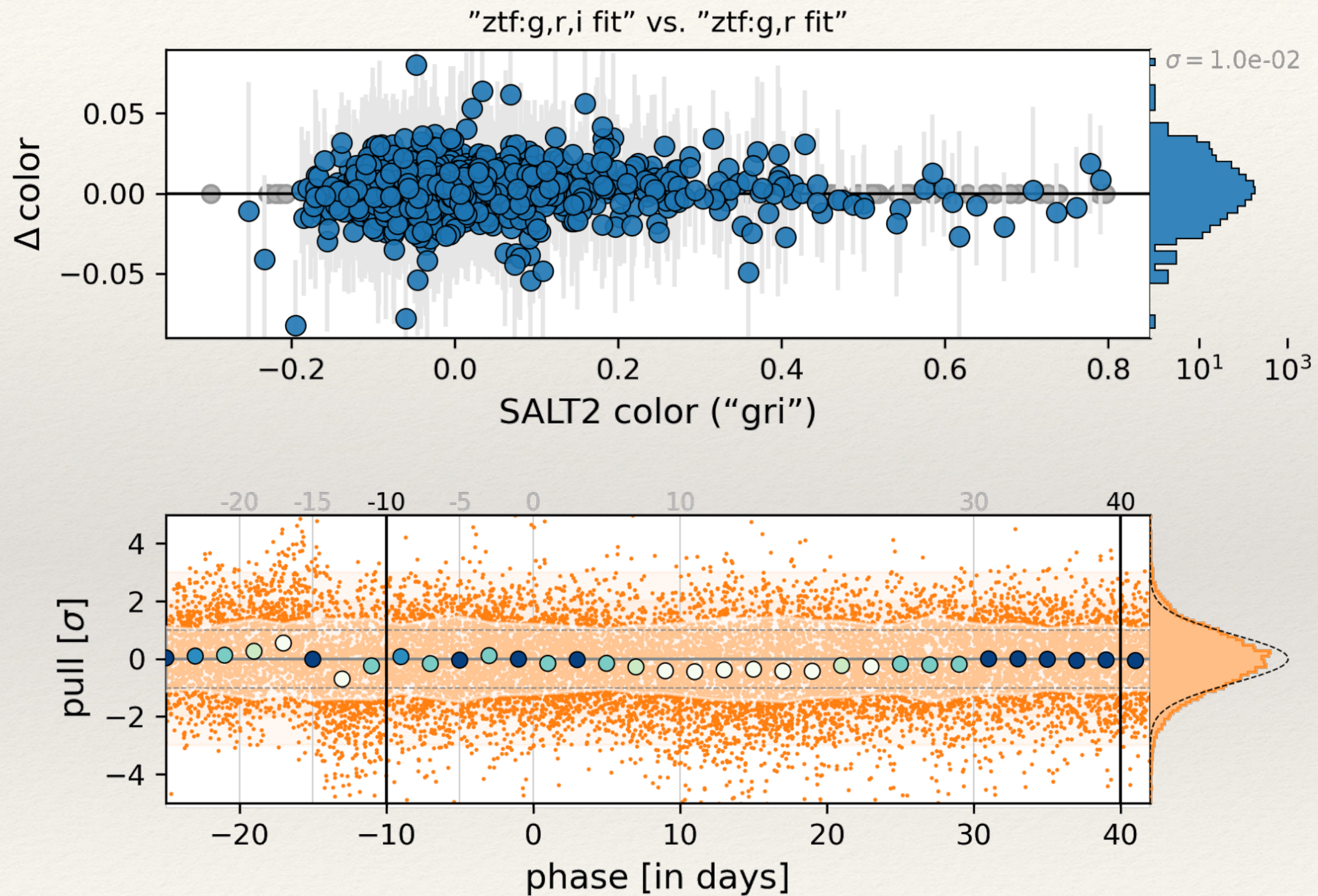
Lightcurve residual vs. Color



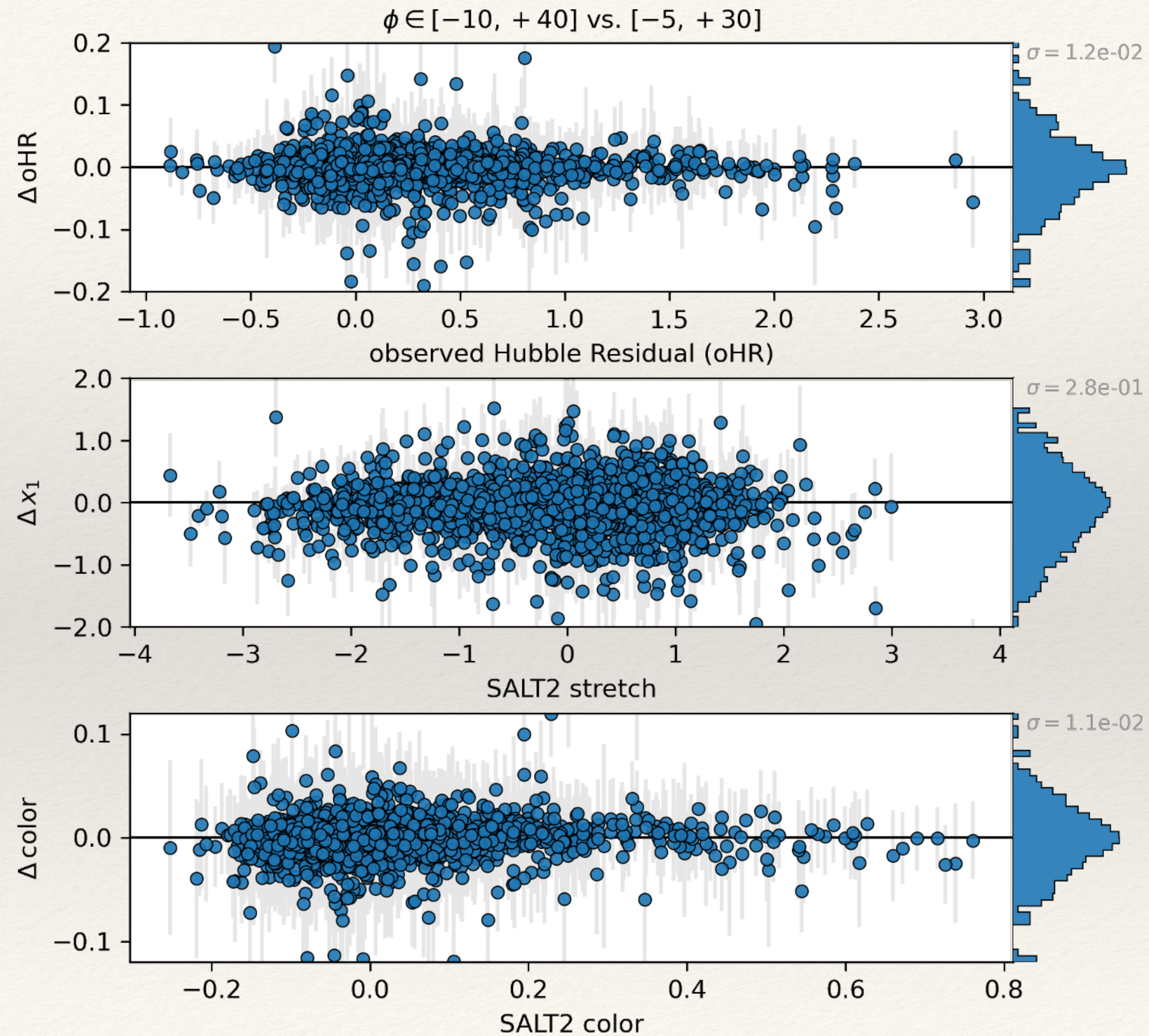
$CL(\lambda)$ is phase independent
 $M_0(\lambda, t)$ | does not depend on c

There is something odd here...

What if we discard *ztf:i*



Phase-fit | impact on parameter



Conclusion

Phase-range to use is shown

Need to retrain is illustrated

Residuals everywhere

Something interesting in the color