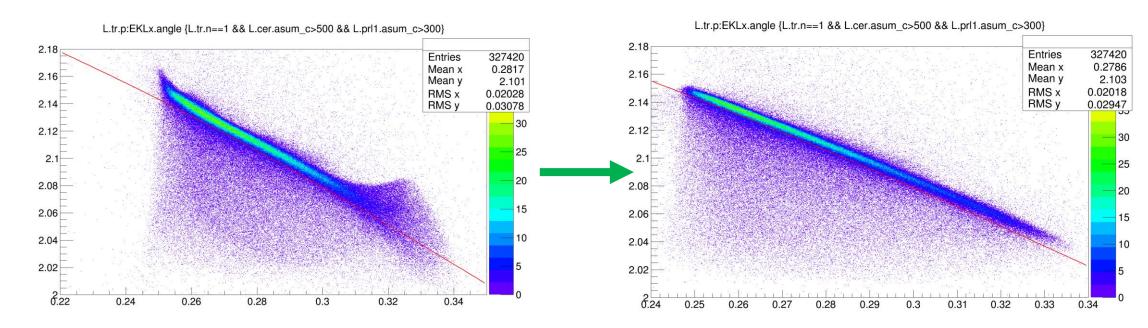
# LHRS Optics summary

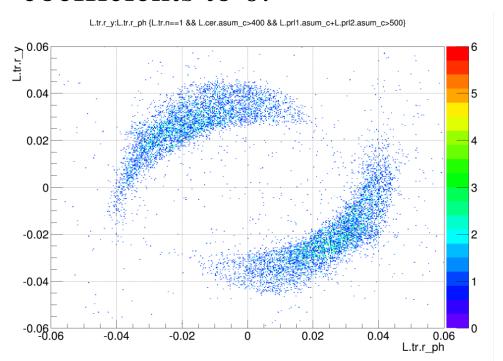
# Spring 2016

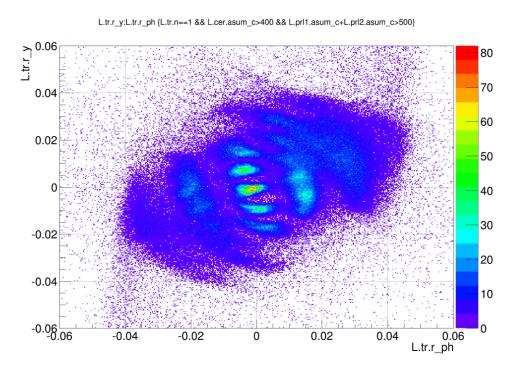
- Issue 1 : momentum calibration with order 4 (complete) matrix not working.
- $\rightarrow$  Calibrated only 3 main momentum coefficients (dependence in  $x_{fp}$ ,  $x_{fp}^2$  and  $x_{fp}^*\theta_{fp}$ ), other coefficients left untouched. ( $x_{fp}^*\theta_{fp}$  was dominating)



## Spring 2016

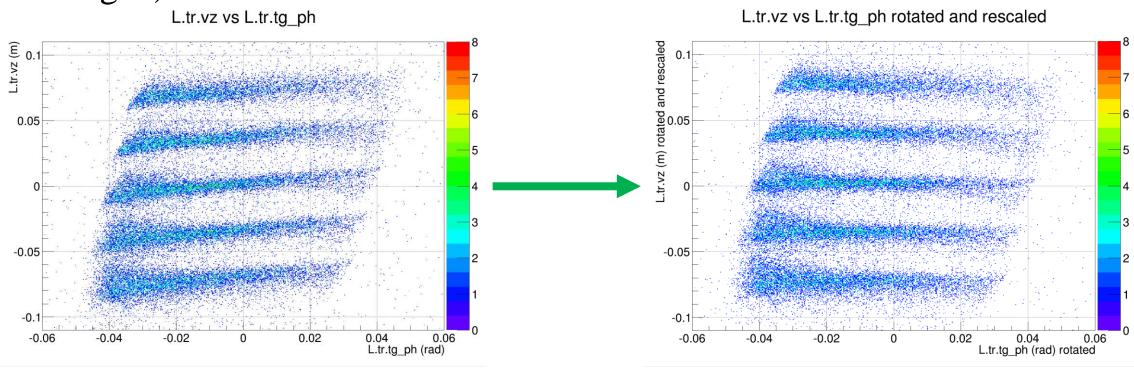
- Issue 2 : Calibration runs taken with LHRS at small angle, focal plan not fully calibrated. Calibration on the edges of the target was poor (and target length was too short).
- → Calibrated vertex and phi matrix coefficients up to order 2, set higher coefficients to 0.





## Spring 2016

- Issue 3 : remaining dependence vertex-phi + reconstructed target length still a little bit too short.
- → Rotation vertex-phi plan + vertex rescaling (but optics matrix not changed)



### Fall 2016

• Issue : Q1 saturation

No solution yet, still using Yang Wang's early optic matrix (calibrated before saturation was discovered).

