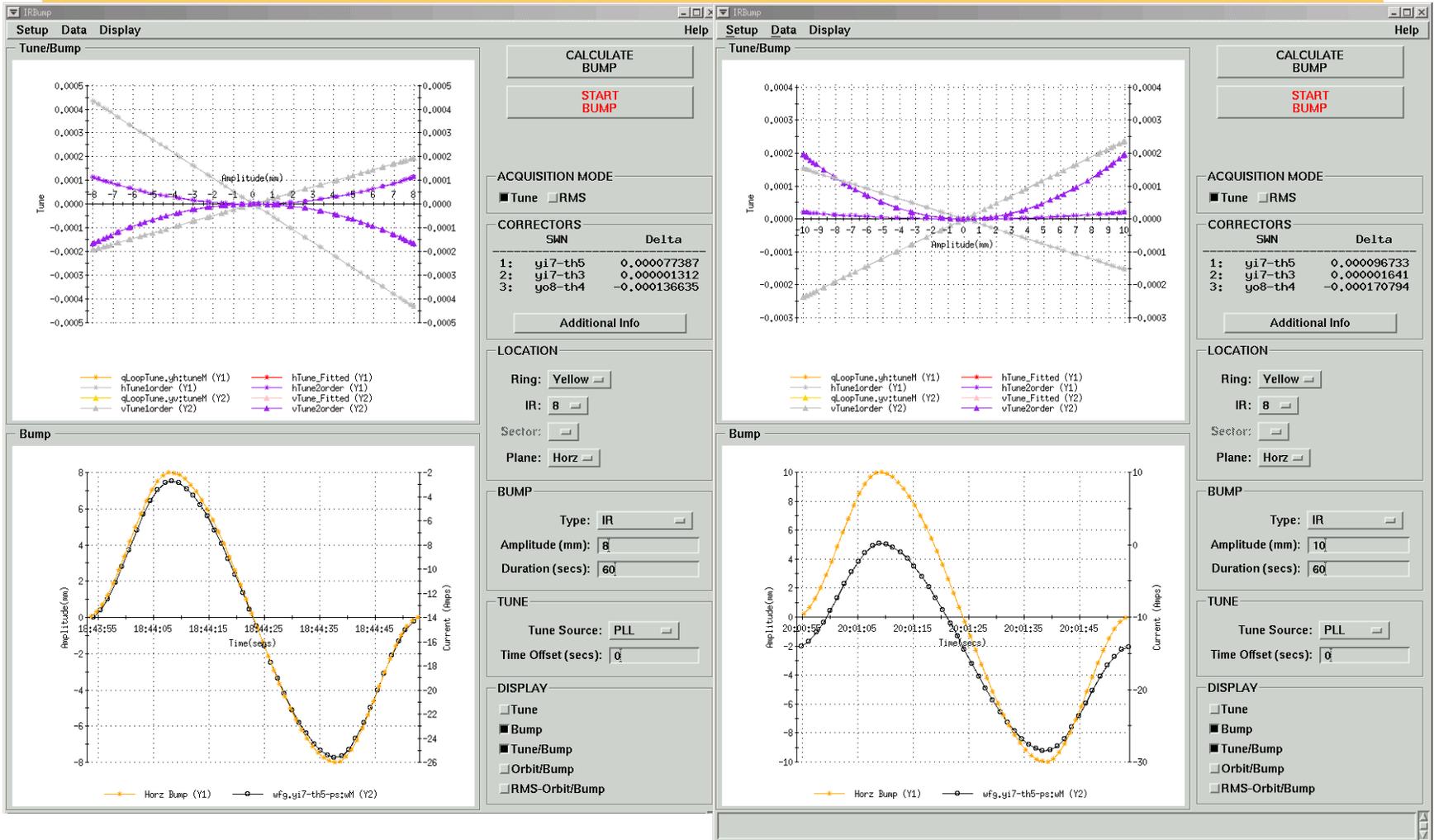


# Re-correction yellow IR8



$$Yi7-sx3=0.0005 \quad yi7-oct3=-0.05 \quad yo8-oct3 =-0.1$$

# Re-correction blue IR

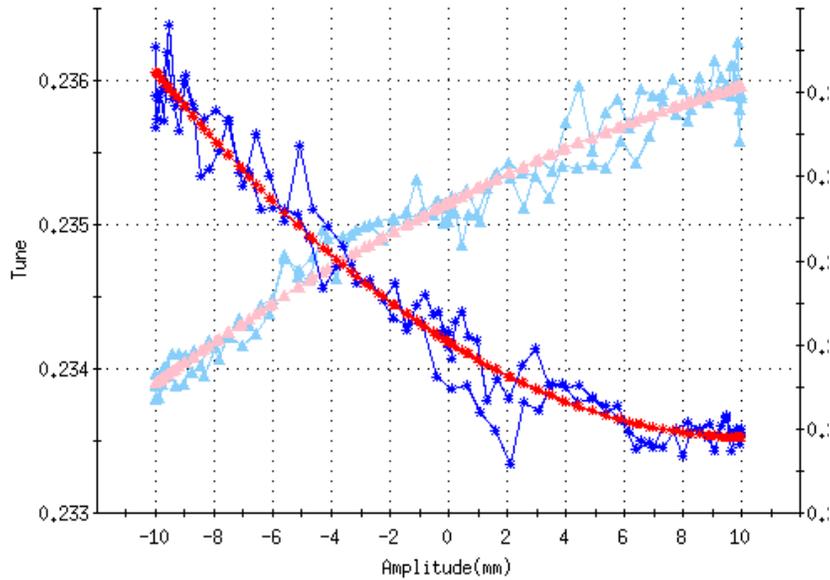
- Last week yellow IR8: strong octupoles (individual triplets) to weak octupole + sextupole correction (effect integrated over entire IR) → better aperture, lifetime, background
- Did the same in blue, during yellow non-linear chromaticity measure

## Procedure:

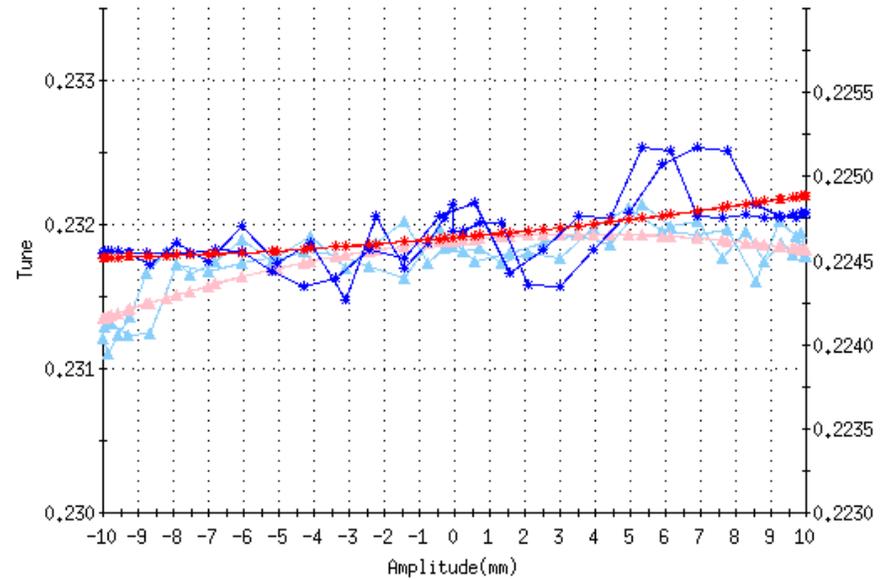
- Ramp blue IR6 and IR8 octupole to zero
- Check lifetime
- Bump across IR - no correction, IR6 and IR8
- Correction IR6 (weak sextupole + octupole)
- Re-check lifetime

Correctors:	bi5-sx3:	0.0011	
	bo6-sx3:	-0.001	
	bi5-oct3:	-0.1	(>factor 6 weaker)

# Correction IR6

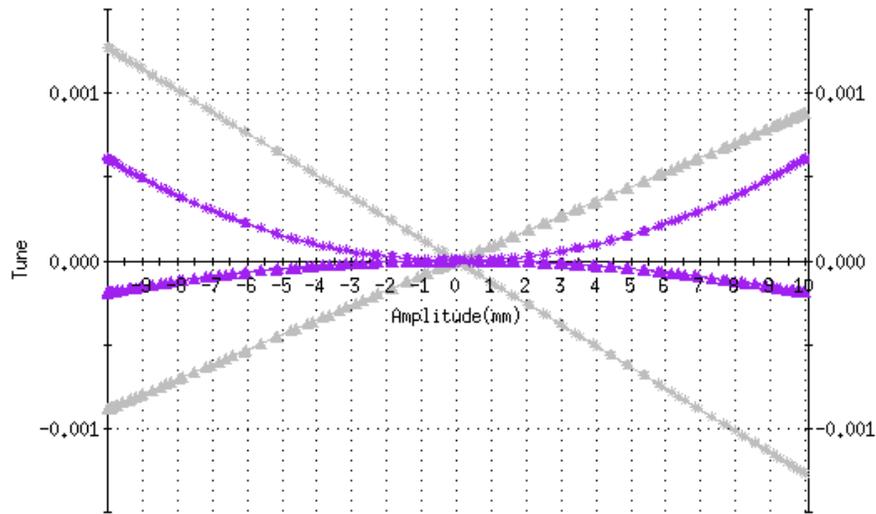


- \*— qLoopTune,bh;tuneM (Y1)
- \*— hTune1order (Y1)
- \*— hTune2order (Y1)
- ▲— qLoopTune,bv;tuneM (Y2)
- ▲— vTune1order (Y2)
- ▲— vTune2order (Y2)
- \*— hTune\_Fitted (Y1)
- ▲— vTune\_Fitted (Y2)

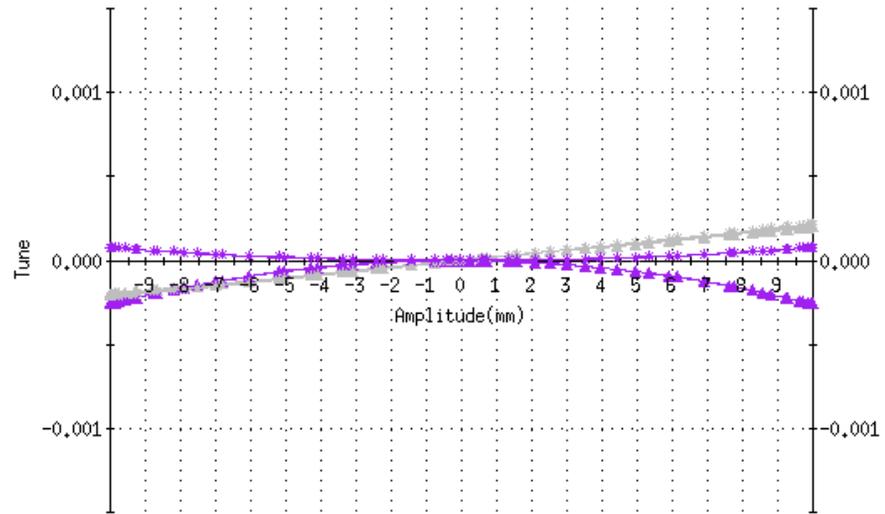


- \*— qLoopTune,bh;tuneM (Y1)
- \*— hTune1order (Y1)
- \*— hTune2order (Y1)
- ▲— qLoopTune,bv;tuneM (Y2)
- ▲— vTune1order (Y2)
- ▲— vTune2order (Y2)
- \*— hTune\_Fitted (Y1)
- ▲— vTune\_Fitted (Y2)

# Correction IR6 - linear and quadratic fit

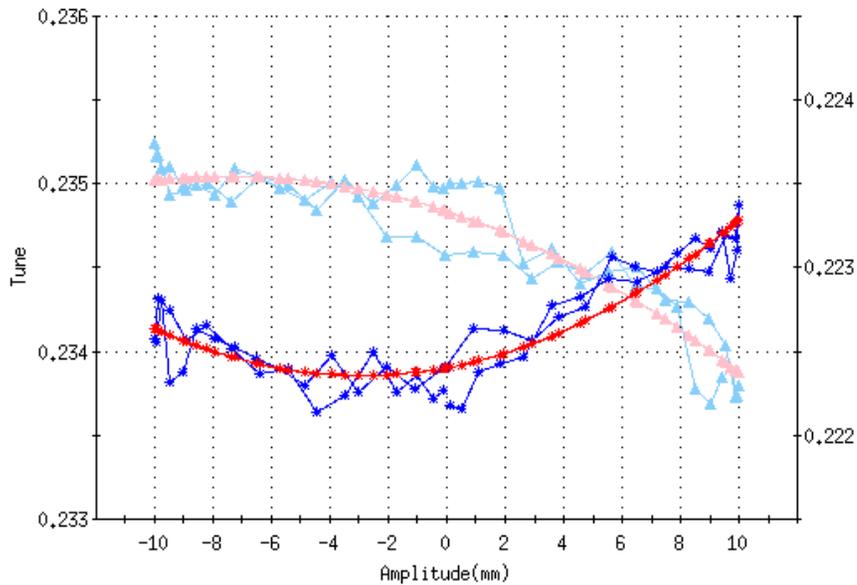


- qLoopTune,bh;tuneM (Y1)
- hTune1order (Y1)
- qLoopTune,bv;tuneM (Y2)
- vTune1order (Y2)
- hTune\_Fitted (Y1)
- hTune2order (Y1)
- vTune\_Fitted (Y2)
- vTune2order (Y2)

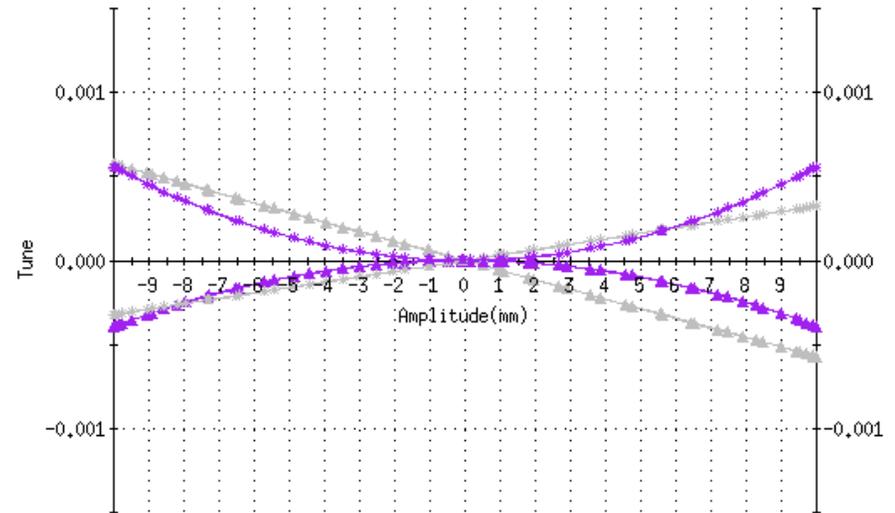


- qLoopTune,bh;tuneM (Y1)
- hTune1order (Y1)
- qLoopTune,bv;tuneM (Y2)
- vTune1order (Y2)
- hTune\_Fitted (Y1)
- hTune2order (Y1)
- vTune\_Fitted (Y2)
- vTune2order (Y2)

# Measurement IR8



- qLoopTune.bh;tuneM (Y1)
- hTune1order (Y1)
- qLoopTune.bv;tuneM (Y2)
- vTune1order (Y2)
- hTune\_Fitted (Y1)
- hTune2order (Y1)
- vTune\_Fitted (Y2)
- vTune2order (Y2)



- qLoopTune.bh;tuneM (Y1)
- hTune1order (Y1)
- qLoopTune.bv;tuneM (Y2)
- vTune1order (Y2)
- hTune\_Fitted (Y1)
- hTune2order (Y1)
- vTune\_Fitted (Y2)
- vTune2order (Y2)

# Summary operational IR correction

As of February 6:

- Yellow IR6            sextupole
  - Yellow IR8            sextupole + octupole
  - Blue IR6              sextupole + octupole
  - Blue IR8              no correction
- 
- Test of filter (UAL & MADX) prediction for correctors
  - Comparison operational data with model (have capability of calculating tune vs. bump data in UAL now)