

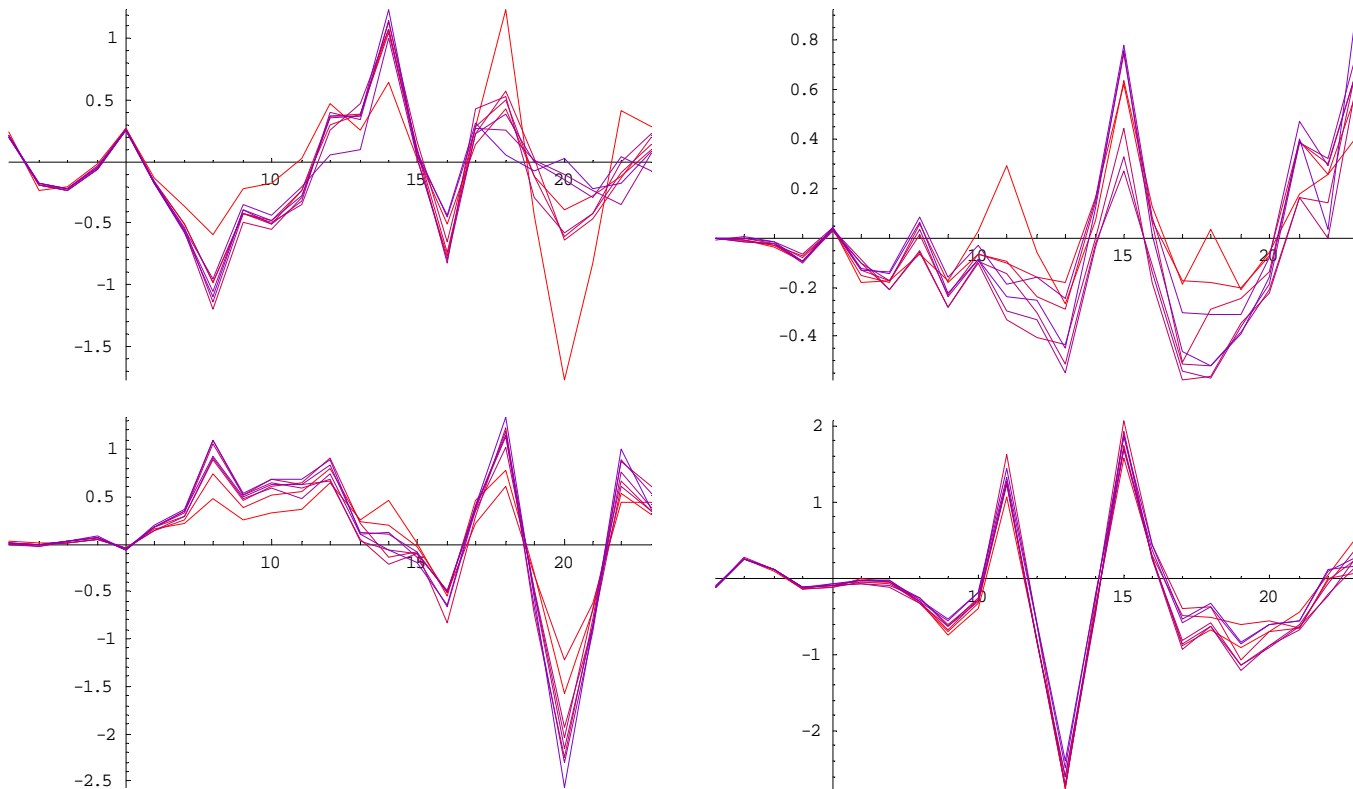
# State of Adiabatic Damping in the Accelerator

## Cumulative Behavior from 10/14 to 10/24

### IPM1I02 to IPM0R07 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

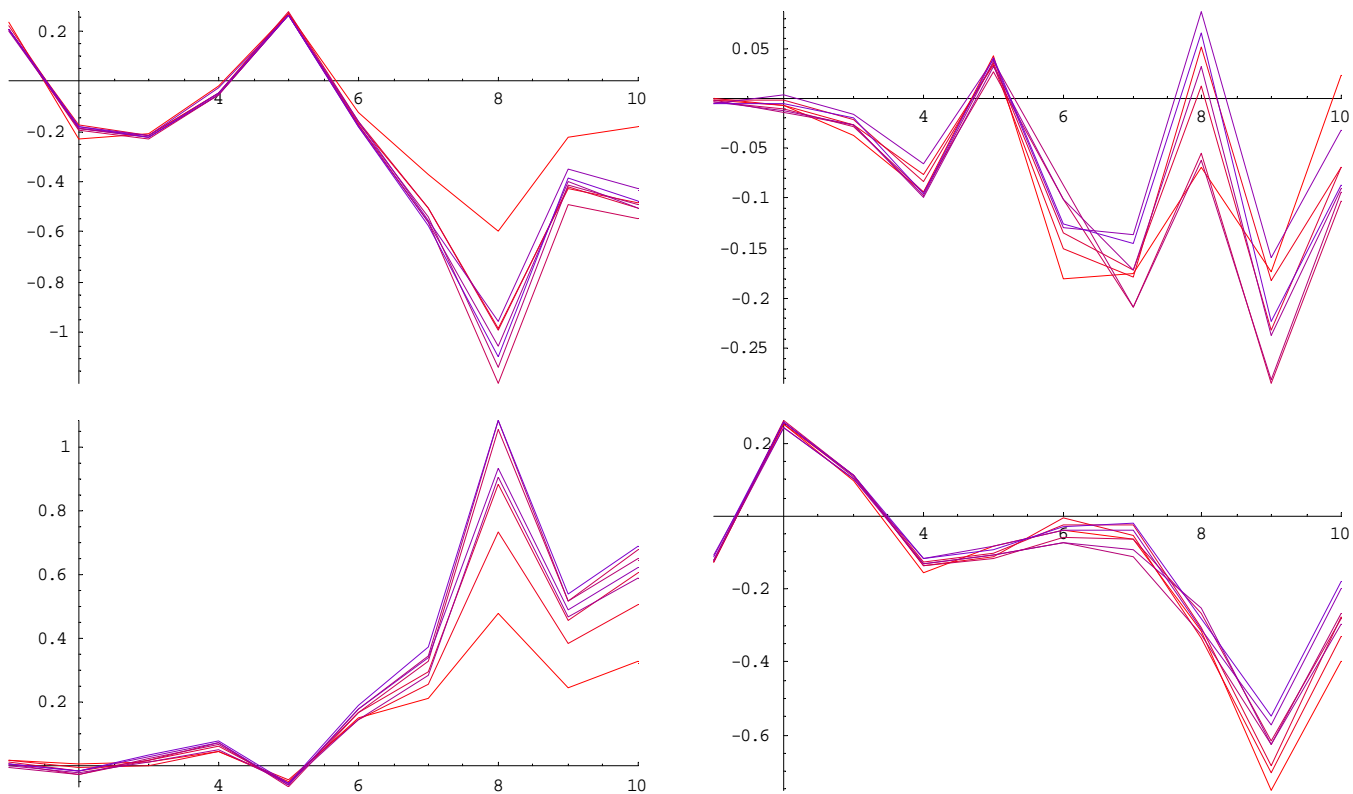
Red to Magenta to Blue: 10/14 –10/24data (10/14, 18, 19, 20, 21, 22, 23, 24)



### IPM1I02 to IPM0L04 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

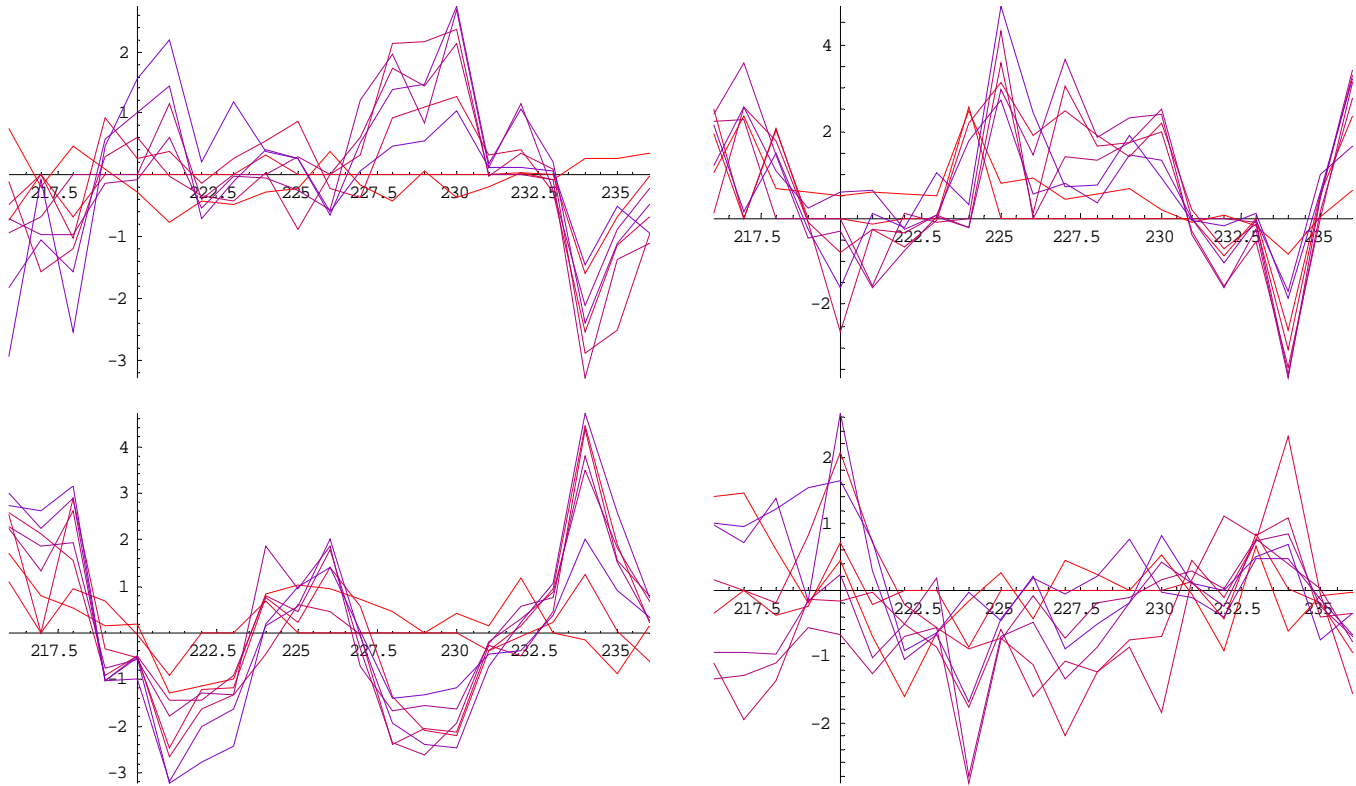
Red to Magenta to Blue: 10/14 –10/24data (10/14, 18, 19, 20, 21, 22, 23, 24)



## IPM1C01 to IPM1H04B in Hall A

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

Red to Magenta to Blue: 10/14 –10/24 data (10/14, 18, 19, 20, 21, 22, 23, 24)



- Apparently a major change in the Injector in the vicinity of Capture/QuarterCryo/0L01 happened between 10/14 when Injector matching was completed and the next set of PZT data at 10/18. This change, together with possibly other changes, led to significant changes in the PZT responses in Hall A, especially in the X plane.
- The change seems to have settled into a persistent pattern about which daily PZT signatures fluctuate. It has been worse a few days ago and is slightly better tonight.
- See following pages for plots of various subsets, including a comparison of helium run PZT data (08/04) and tonight (10/24). The current damping is still considerably better than that in August.

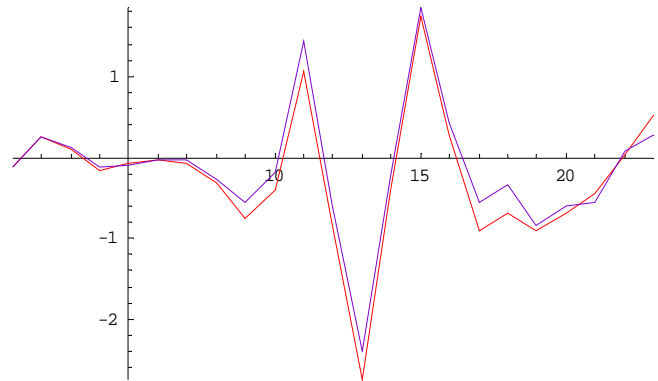
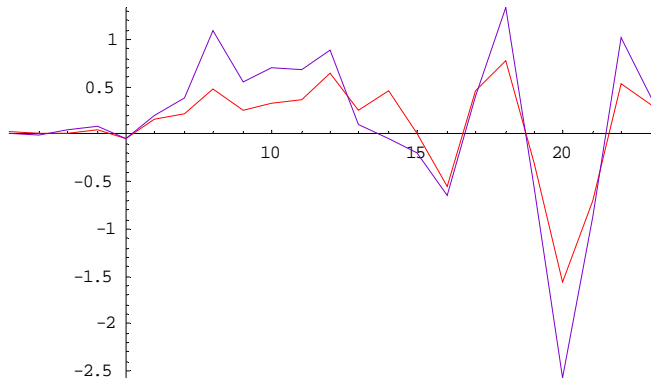
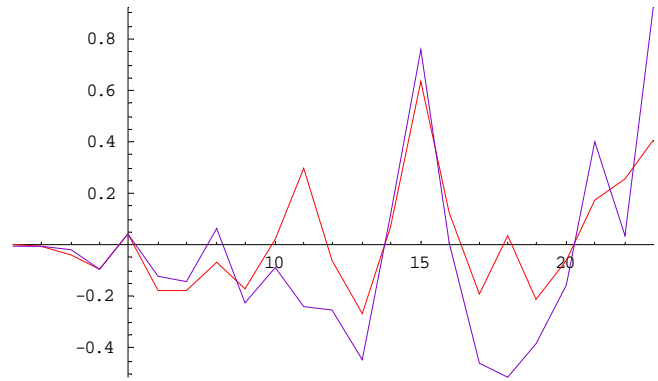
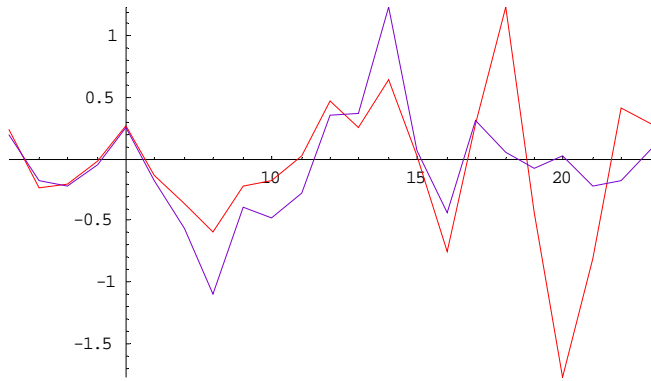
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# Comparison between 10/14 (Previous Match) to 10/24

## IPM1102 to IPM0R07 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

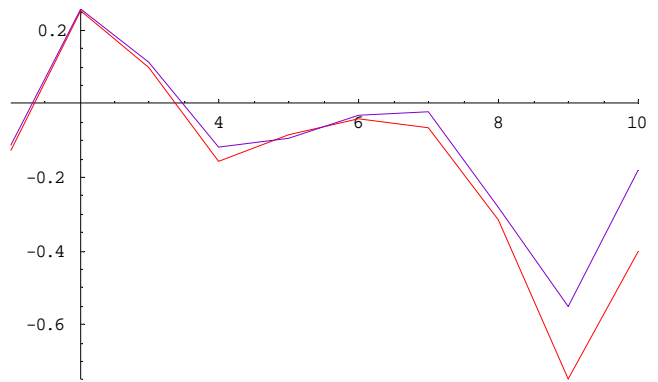
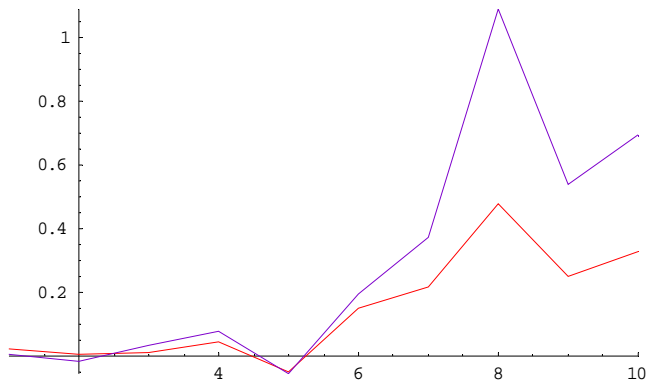
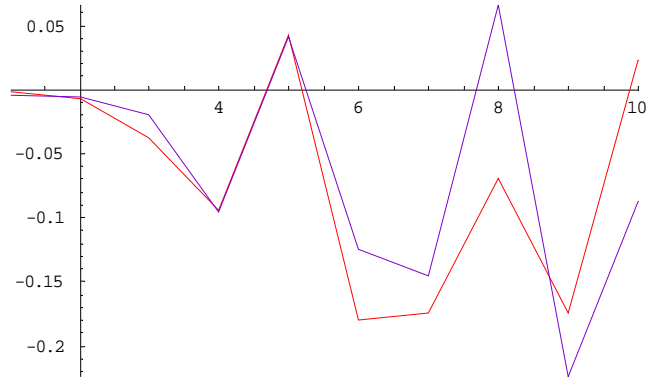
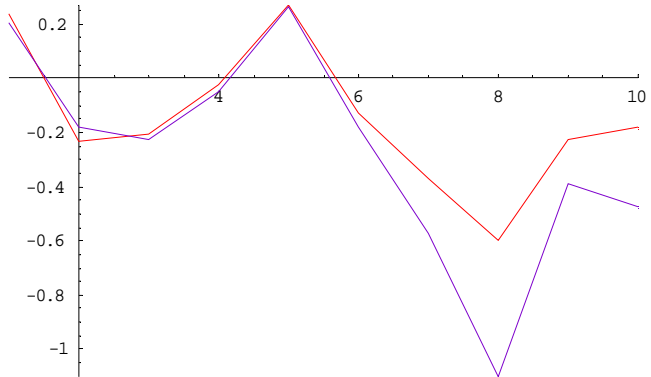
Red: 10/14, Blue:10/24data



## IPM1102 to IPM0L04 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

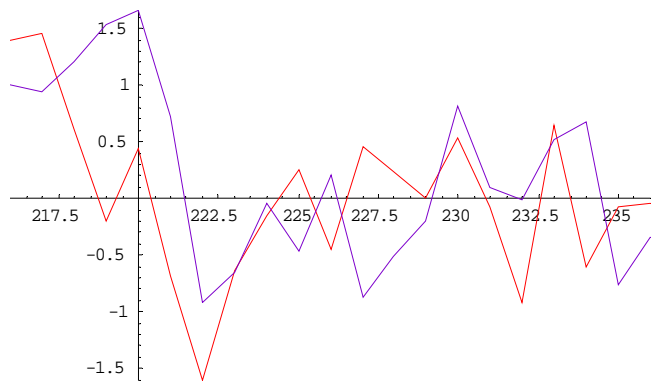
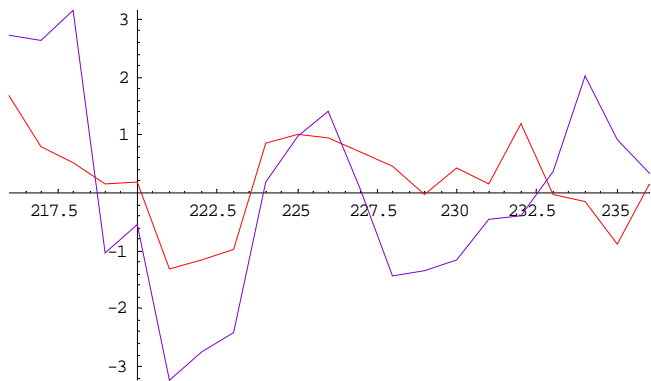
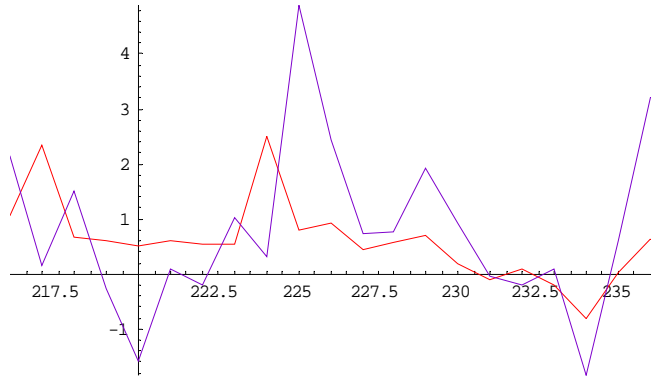
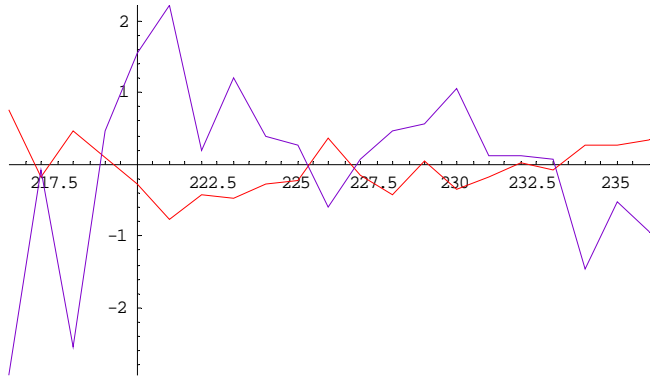
Red: 10/14, Blue:10/24data



**IPM1C01 to IPM1H04B in Hall A**

**All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.**

**Red: 10/14, Blue:10/24data**

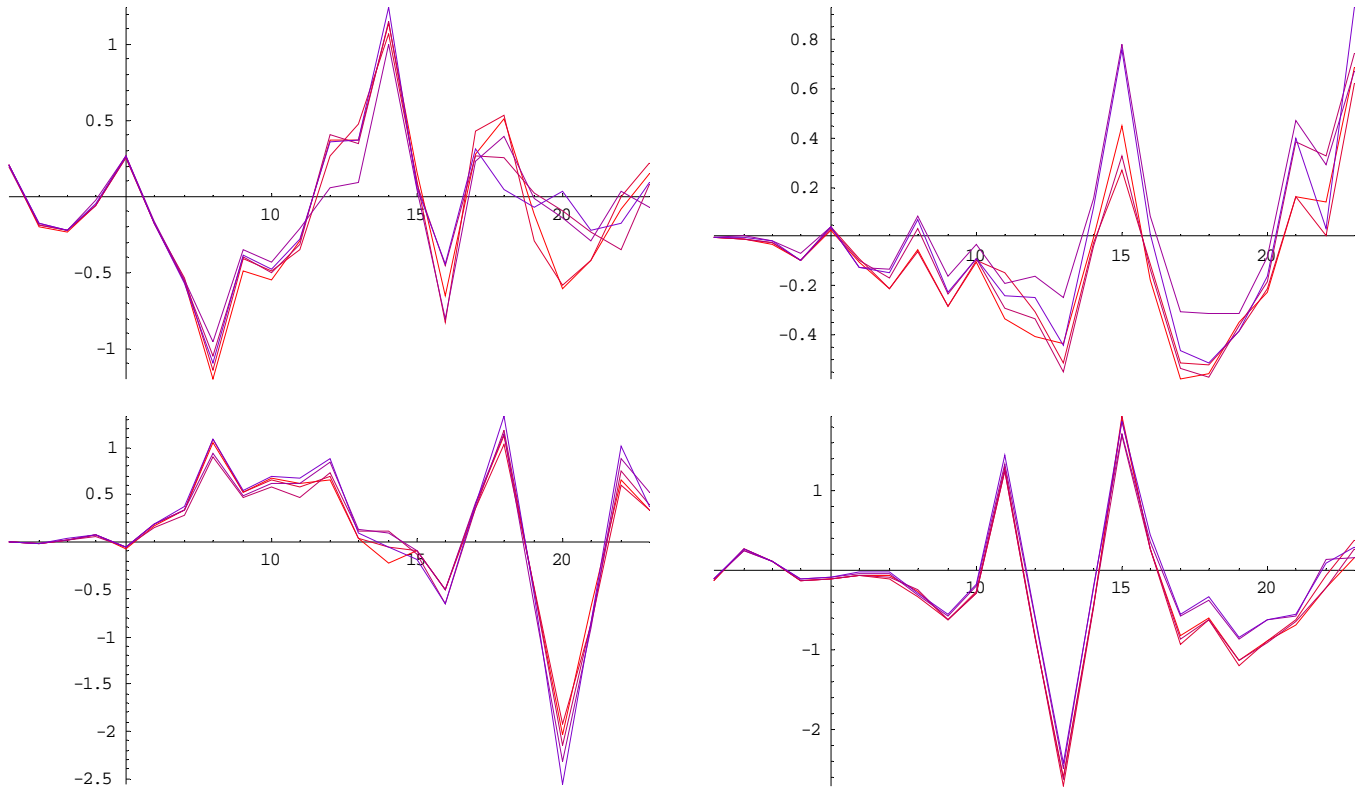


## Trend from Last 5 Days (10/20 to 10/24)

### IPM1I02 to IPM0R07 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

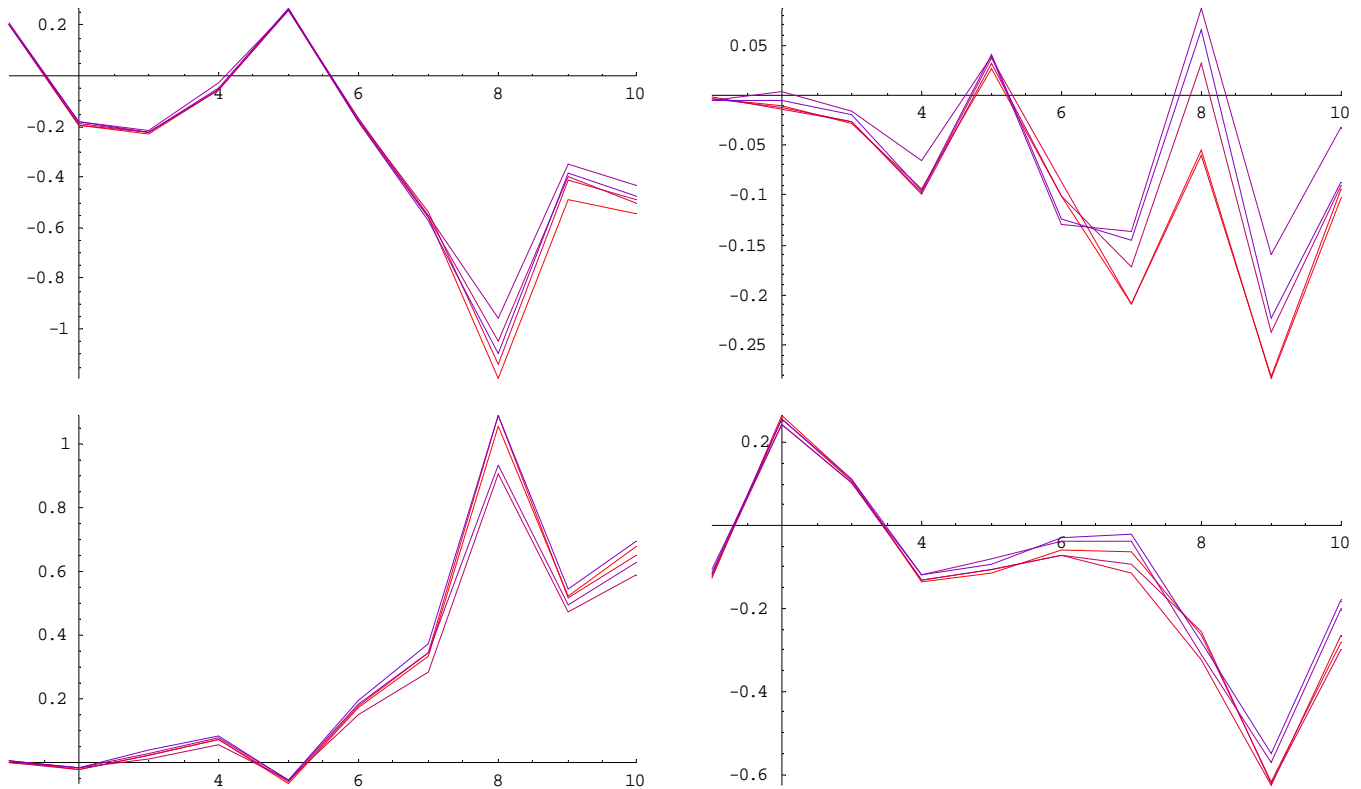
Red to Magenta to Blue: 10/20 –10/24 data (10/20, 21, 22, 23, 24)



### IPM1I02 to IPM0L04 in Injector

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

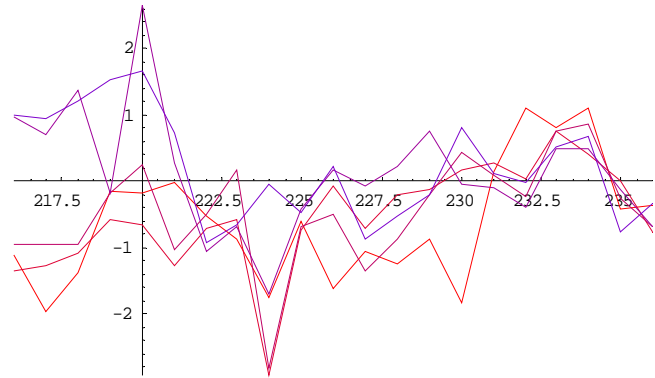
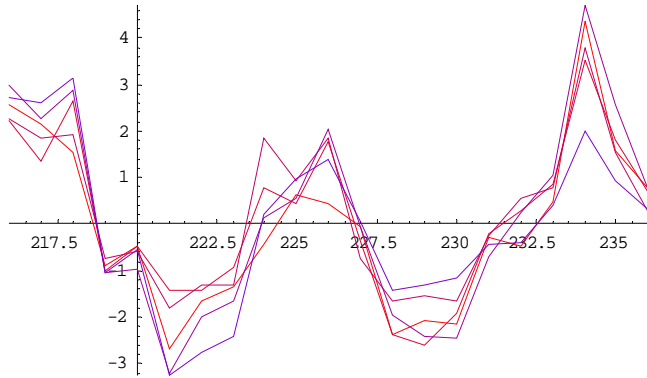
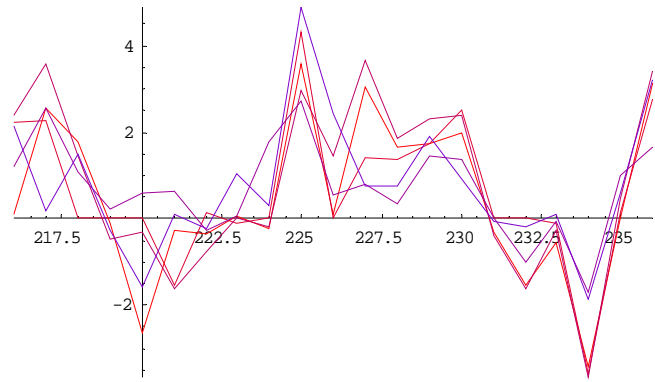
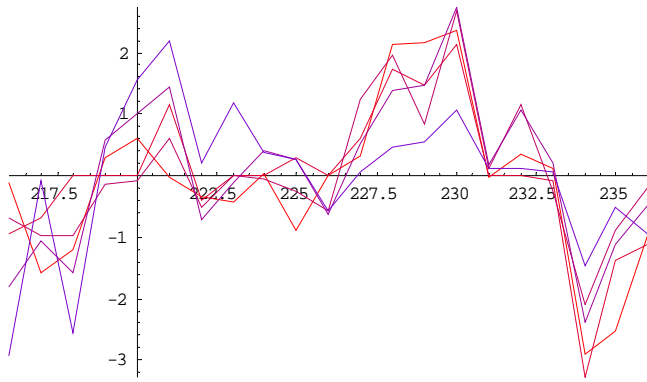
Red to Magenta to Blue: 10/20 –10/24 data (10/20, 21, 22, 23, 24)



**IPM1C01 to IPM1H04B in Hall A**

**All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.**

**Red to Magenta to Blue: 10/20 –10/24 data (10/20, 21, 22, 23, 24)**



# Direct Comparison with Happex Helium Run Measurement of 08/04

## IPM1C01 to IPM1H04B in Hall A

All plots show X & Y components of X PZT in row 1, and the same of Y PZT in row 2 in mm.

Red: 08/04 data (Amplitude unknown, but  $\leq 90$ ); Blue: 10/24 data (Amplitude=80)

