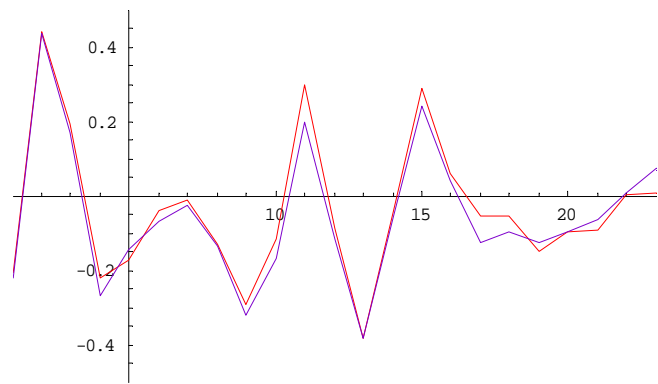
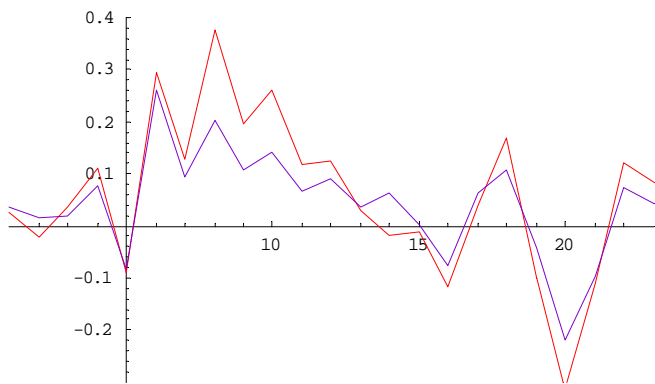
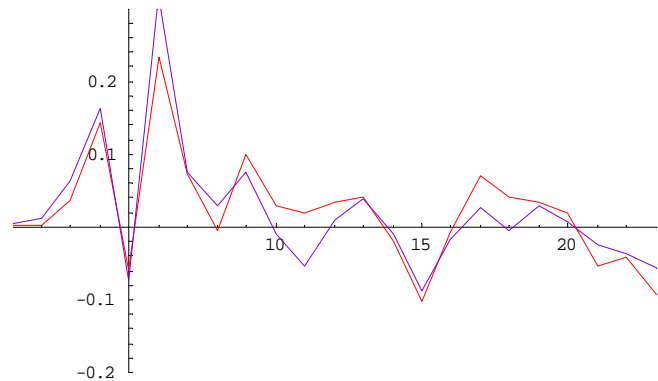
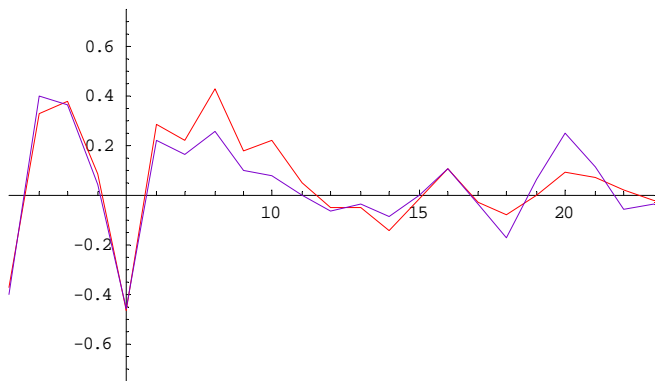


State of Adiabatic Damping 10/19/05

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.

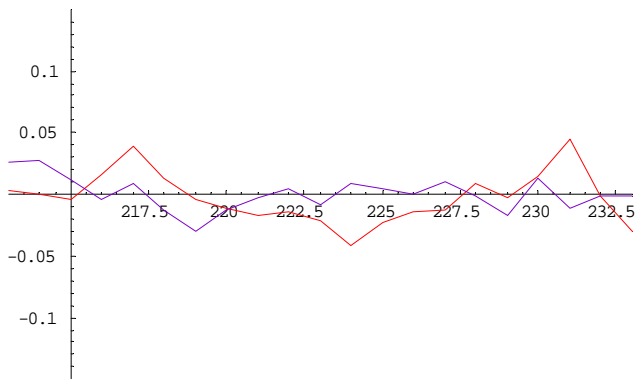
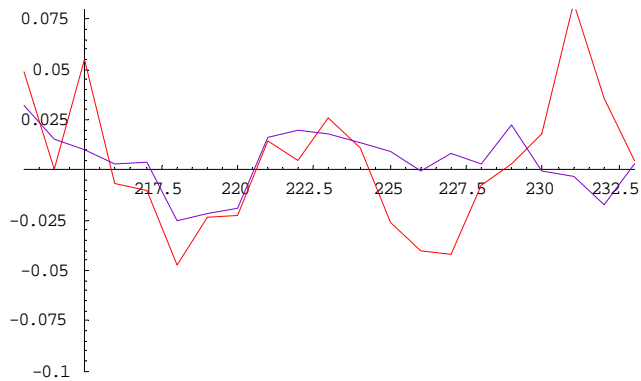
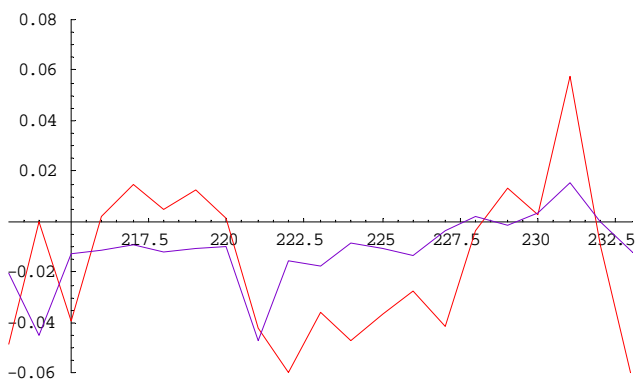
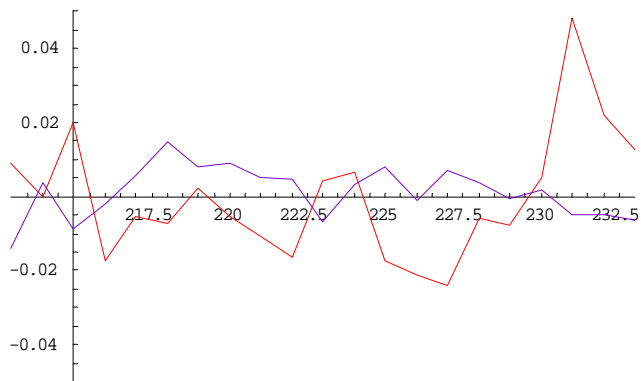
Red: 10/19 data (Now); Blue: 10/14 data (Matched Solution)



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: 10/19 data (Now); Blue: 10/14 data (Matched Solution)



- Apparently some X-plane blowup is developing. This may be the traditional X blowup. There is sign that the PZT signature changed at IPM0L01-02. The change is more than BPM noise and happens in almost all 4 components. Note X components of both PZT's changed more appreciably than Y in the Injector, and X is where the blowup in Hall A happens.
- I suspect that Hall A helicity–correlated orbit for the current batch of data will deteriorate somewhat in the X plane compared to 3 days ago.
- We can invoke the PZT guided tuning to minimize this, if it is OK by consensus. It can take minimal amount of time if the observed pattern yields to an obvious combination of knobs, assuming one pass BSY dump setup is still available. This is also a good opportunity to debug a person-independent process that might be needed to respond to further damping deterioration (I'll be away in 2 weeks).
- Since the two data sets are 5 days apart, it is hard to correlate this with events. Starting tomorrow we should have a tracking system with higher time resolution (one day).
- Nonetheless, information on machine changes since 10/14 that may lead to transport changes is highly useful. There have been several LEM's. What about Injector steering? Did the Hall A optics itself change? Identifying the cause will be extremely valuable to a plan for maintaining minimal helicity correlated orbits over long periods.
- However we may still be better than the previous (helium) run. See next page

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 (Helium); Blue: 10/19 data (Now)

