

# Summary of Status

Jim Pivarski

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# Where are we, with regard to track-based/hardware comparisons?

Jim Pivarski 2/2



This is my understanding:

- ▶ Track-based minus hardware differences show a relative twist (global  $\Delta r\phi$  vs  $z$ ) and a compression (global  $\Delta z$  vs  $z$ ) of about the same magnitude, roughly the same in all sectors, all stations
- ▶ Present at the level of raw residuals
- ▶ Not in segment-to-segment residuals, but not expected
- ▶ Several chambers appear to be displaced in the global  $z$  direction in the hardware geometry (discontinuities in residuals)
- ▶ Link system and inclinometers both find the apparent twist to be  $1 \pm$  small mm between ends of the barrel (track-based sees 4 mm). These are independent of each other and independent of the barrel measurement (track-based is the odd one out)
- ▶ They depend on alignment ring stability since 2009, but there are some good indications of that
- ▶ This is the third week: are we any closer? Is there anything we can do to add new information?