



- relative positions measured by beam-halo tracks
- - - relative positions measured by photogrammetry (PG)
- chamber position
- ⊙ frame position

Schematic diagram of alignment constraints: dots are alignable elements and lines are measurements relating pairs. PG and track-based data are treated the same way. Must be a connected graph to be meaningful (for existence of a solution).

"PGFrame" is an alignable element but not a physical chamber; it is included to allow for possible difference in PG and track-based coordinate frames.