

Specification of field quality for MQY quadrupoles

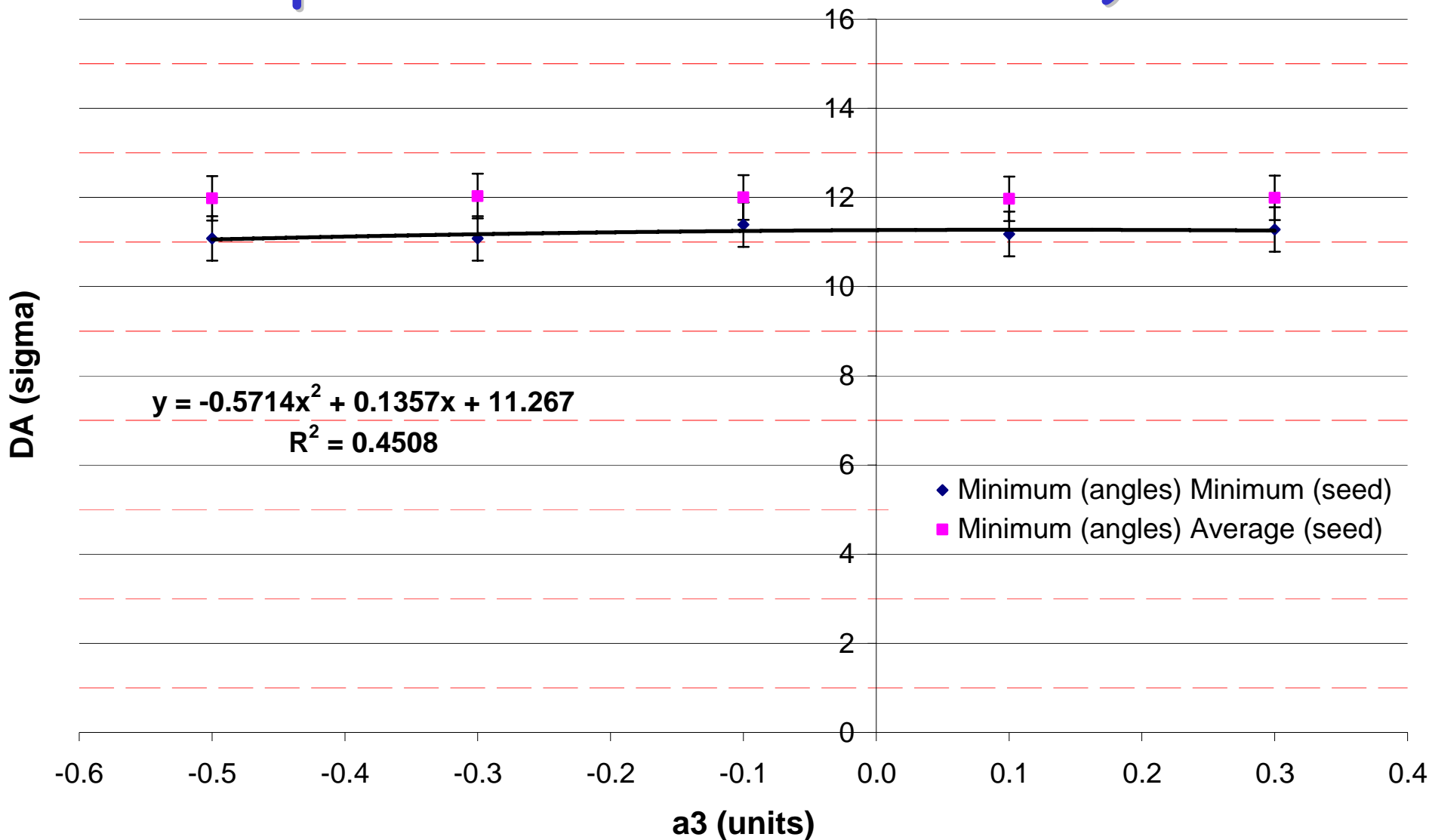
Acknowledgements: S. Fartoukh

- Update of the results presented at the LOC meeting held on 13/04/05
- Summary

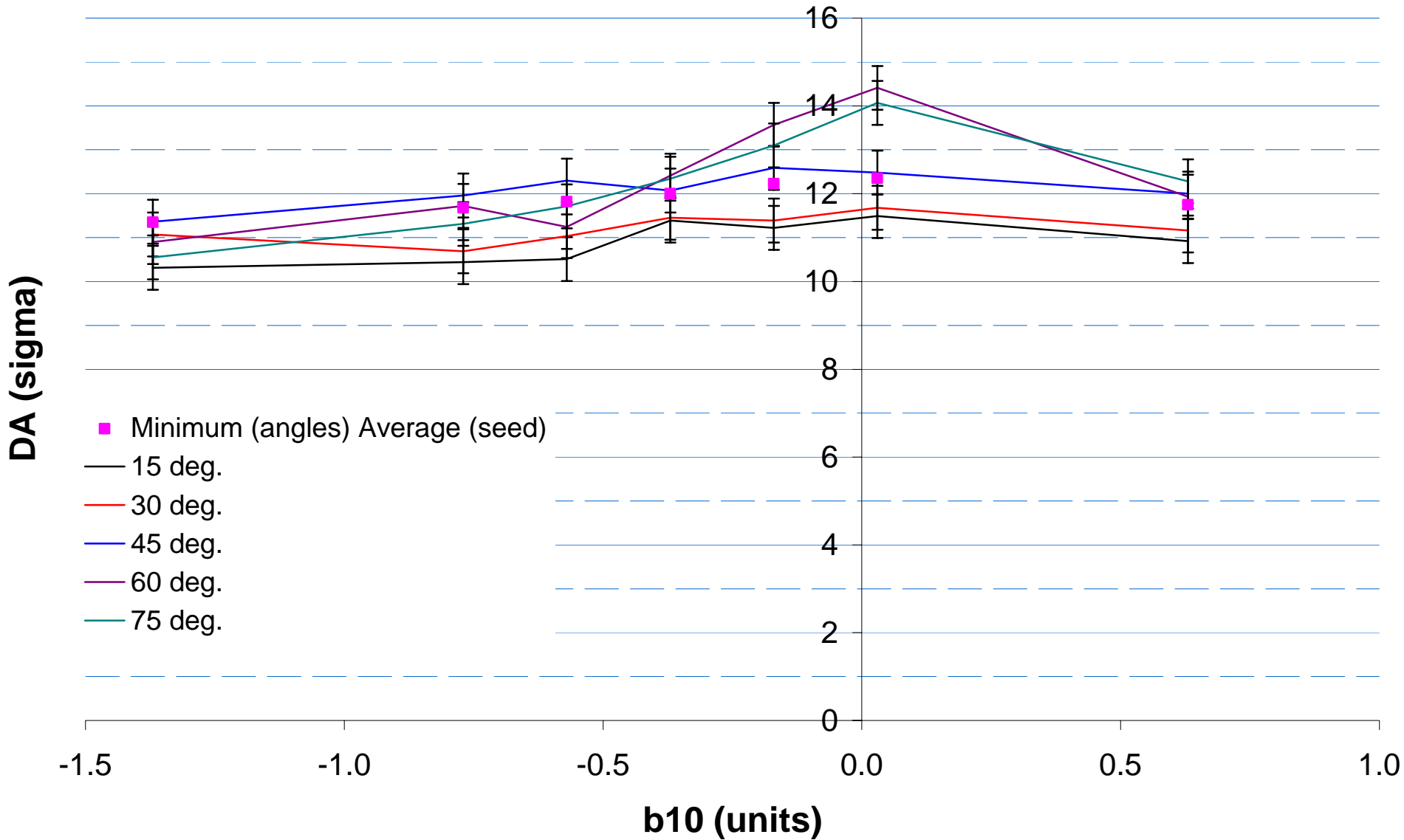
Tracking studies for MQYs: scan over skew and normal multipoles- I

- Tracking setting-up:
 - V6.4 with Q3 moved
 - Injection energy
 - Measured errors in MBs
 - Target errors for MQs (AL)
 - Shift of b6 for MQs in two sectors
 - New measured error tables for MQWs (based on measurement results of 22 MQWs)
 - Expected error tables for cold D1s, D2s, D3s and D4s
 - New signs for the error routines (AL)
 - Initial field quality for MQMs: measured multipoles (systematic and random) with **UNC. = 1 on bn**
 - Measured multipoles for MQY field quality

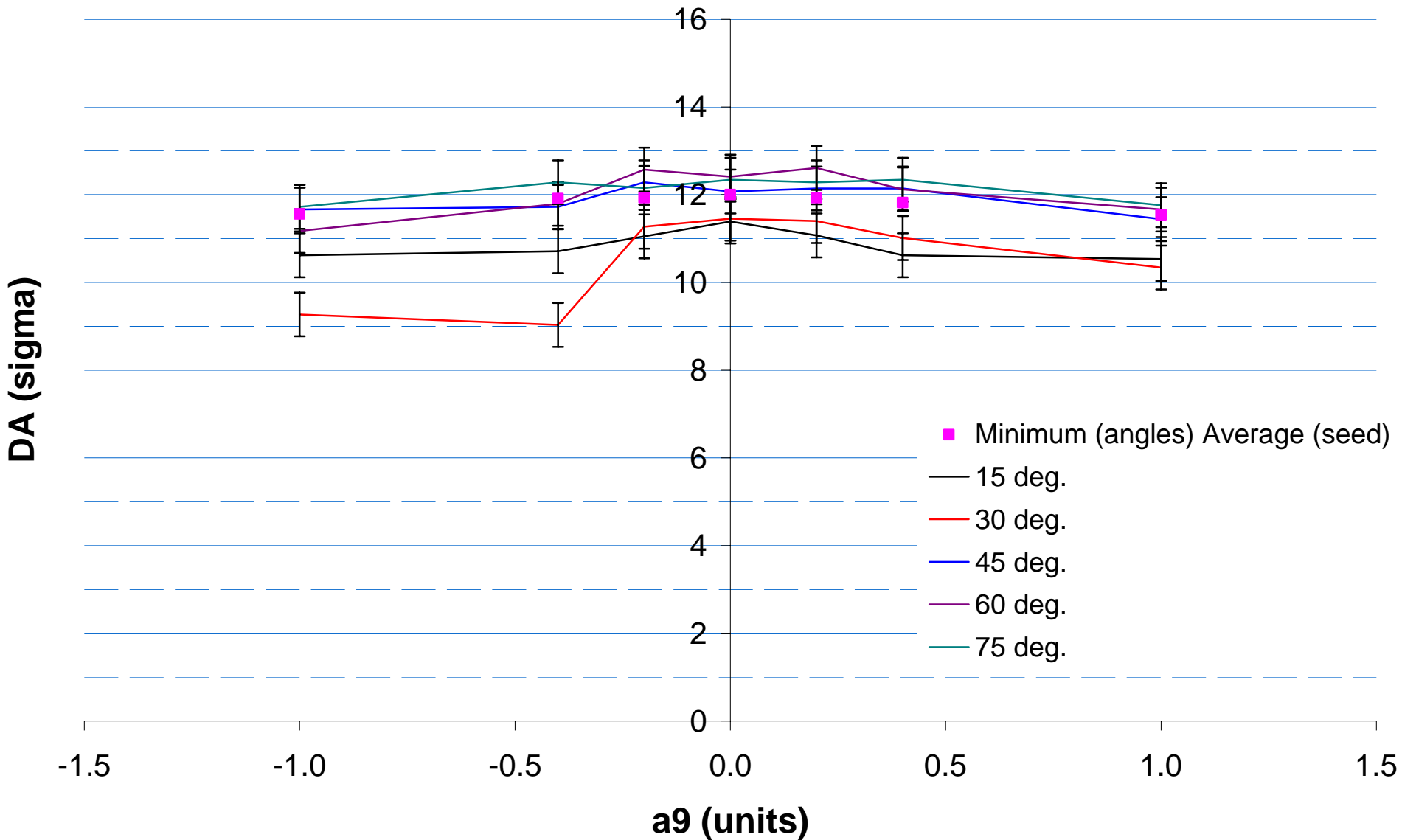
MQYs old tracking results (see LOC presentation on 13/04/05)



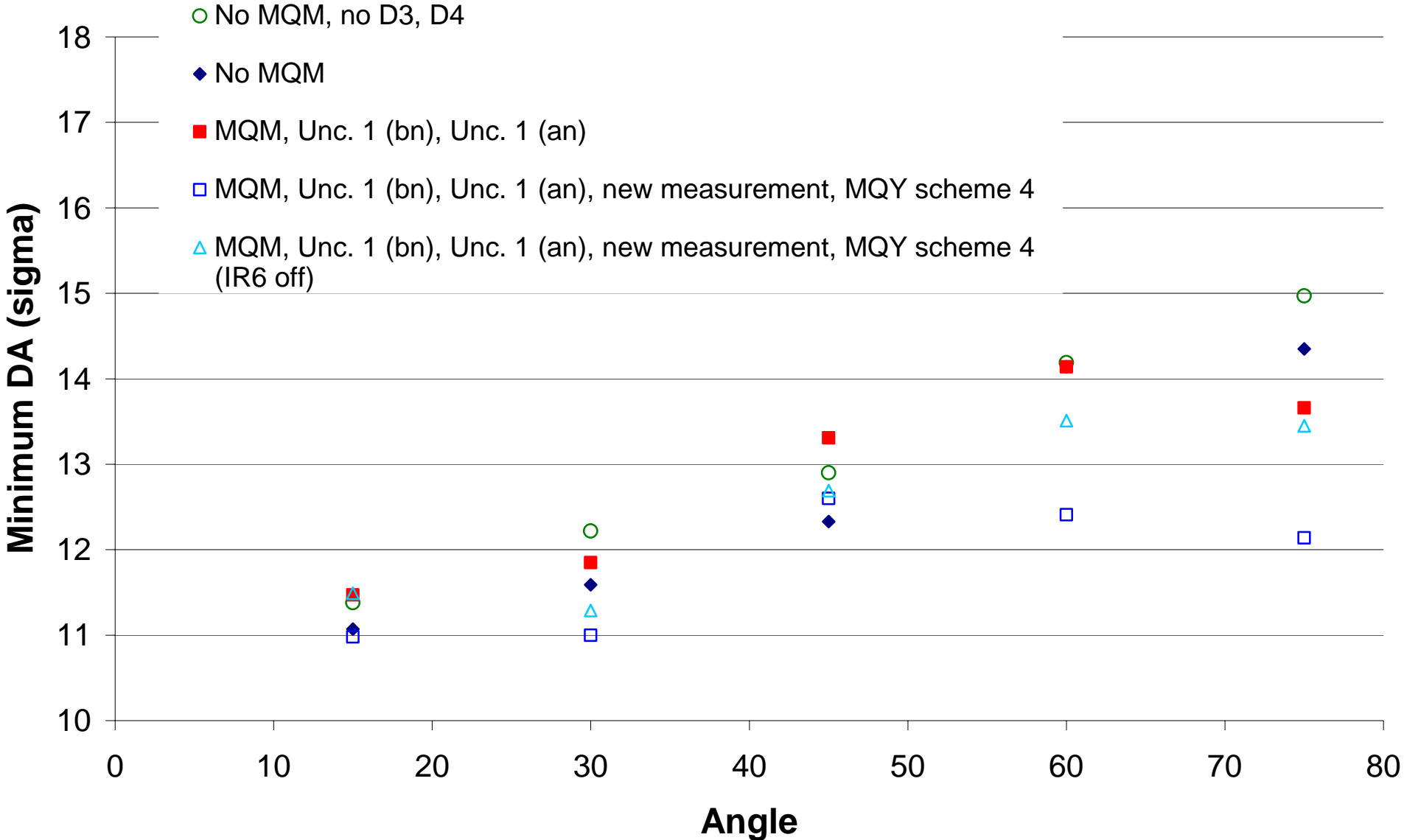
MQYs new tracking results - I



MQYs new tracking results - II



MQYs new tracking results - III



Summary

- Impact of FQ of MQY quadrupoles on DA is dominated by:
 - b10 -> allowed multipole
 - a9 -> non-allowed multipole. Induced by feed-down effects (vertical crossing angle)
- DA is dominated by the MQYs in IR6.
- The findings of the tracking studies have been communicated to relevant people (FQWG, SSSS Co-ordinator, MEB) as target field quality.