

This week's run plan (MOM-DMK/L. Coney/C. Rogers/A. Blondel, 12 July 2010, Revision 2):

Scan each quad triplet (nominal/ $\pm 10\%$ / $\pm 20\%$, 200 pulses each) for "3-450-240" (version M0) emittance-matrix cell

Take more statistics on "10-483-240" (optimized, version M1) emittance-matrix cell

Take more statistics on "6-405-200" (optimized, version M1) emittance-matrix cell

Switch to positives (Martin Hughes to swap current leads of all 11 magnet power supplies)

Scan proton-absorber thicknesses:

- Set trigger to TOF0
- Re-check a few cases (≈ 100 pulses each) from MICE Note 294: no absorber (Figs. 7–9, upper-left plots), no protons (Fig. 7, 29 mm; Fig. 8, 29+54 mm; Fig. 9, 15+29+54 mm)
- Find required absorber thickness to eliminate proton peak in TOF0-GVA1 time difference (54+49 mm, 54+49+15 mm, 54+49+29 mm, etc.)
- At last thickness before proton extinction scan D1 down by 1% steps and draw proton rate curve.
- **Note:** avoid GVA1 saturation and DAQ crashing at high rate by backing off on target depth

Take 2000 pulses for each matrix element, with the trigger set back to TOF1

Scan quads at $6\pi/10\pi/3\pi$ settings

Note: a goal if possible is to use on-line (TOF) reconstruction to display rates, timing, measured TOF0/TOF1/TOF2 beam center and RMS's (also possibly Twiss parameters) so as to compare and match to nominal beam center, beam size, and emittance. We have suggested to Vassil that his summaries be issued also as run summaries, if possible by adding the basic quantities above, and sent directly to the e-log.

(NB: the difference between the beam center in x and the nominal one is not necessarily a beam line imperfection. It may be due to a primary spectrum of pions that is different between the hadronic model and reality.)