

## Topics of study for the ATF extraction line meeting of April 30, 2008

- 1) Comparison of QM7 field maps computed at SLAC and LAL and discussion / conclusion on multipole fitting method (Angeles Faus-Golfe, Maria Alabau)
- 2) Consistency of strength of skew quad added to QM7 to account for coupling measured through quad scans, with typical amplitudes of vertical offsets in QM7 and spot size increases seen on OTR (Cécile Rimbault, Maria Alabau)
- 3) Set of hypotheses for the incoming beam parameters and skew components added along the line (e.g. in QM7) to explain normal and skew parabolas measured in March, with and without the attempted correction. Are the parabolas used sufficiently constraining given measurement errors, or would additional ones be needed ? Impact of systematic errors from effective length and hysteresis effects (Cécile Rimbault).
- 4) Error analysis and propagation in emittance and Twiss parameter determinations. Simulation of the measurements by multi-wire and quad scans. Is the precision on back-tracked Twiss parameters sufficient to be used as input and enable stable results when re-matching the optics for large phase-advances in the diagnostic straight (Anthony Scarfe, Julien Brossard).
- 5) Progress with Twiss parameter fitting methods to achieve reasonable phase advances in diagnostic straight section given backtracked values inferred from quad scan measurements (Robert Appleby, James Jones, Julien Brossard).
- 6) Extracting information on QM7 from fitting nearby BPM data taken during March shifts (Mark Woodley)
- 7) Preparations for flight simulator testing in May. What is planned to be done with KEK control system experts in the first week ? EXT trajectory correction simulation and implementation through the flight simulator (Glen White, Yves Rénier).
- 8) Report on Thursday 24 April quad scan measurements shift with remote participation, including some preliminary analysis (Shigeru Kuroda, Cécile Rimbault, Mark Woodley).
- 9) Discussion of goals and tentative shift plans for bumps + OTR + emittance/Twiss and skew measurement and correction (Maria Alabau, Cécile Rimbault, Anthony Scarfe)