

Estimation of Vertical Dispersion and Betatron Coupling for SOLEIL, A. LOULERGUE, J. PAYET, CEA (France); J.L. LACLARE, M.P. LEVEL, A. NADJI, P. NGHIEM, SOLEIL (France) - Analytical expressions are derived to calculate statistically the vertical dispersion and the induced vertical emittance in the presence of imperfections with and without closed orbit correction. In addition a statistical study is performed to estimate the betatron coupling contribution to the vertical beam size. Finally we determine the tolerances for quadrupole tilt errors and vertical sextupole misalignments.