LATTICE OPTIONS FOR PS2

Y. Papaphilippou, J. Barranco, W. Bartmann, M. Benedikt, CERN, Geneva;
D. Trbojevic, R. de Maria, BNL, Upton, Long Island, New York

Abstract

In view of the CERN Proton Synchrotron replacement with a new ring (PS2), a detailed optics design is undertaken following several options, which cross or avoid transition. The different lattices are compared with respect to their linear optics flexibility, acceptance and chromatic properties. The effect of magnet misalignments in the beam orbit and linear optics functions are reviewed and correction schemes are proposed. Finally, the different lattice options are compared with respect to single particle non-linear dynamics.

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