Abstract

Lattice design for SuperKEKB is based on the present KEKB lattice. The unit-cell structure of KEKB has a wide range of flexibility, therefore main beam-optical parameters can be adjusted without changing the arcs. The interaction region (IR) and the other straight sections are changed to squeeze the vertical beta function to 3 mm at IP, keeping sufficient dynamic apertures. Recent progress such as a new design of IR with superconducting quadrupole magnets at 1.9 K, traveling focus scheme by using crab cavities, local chromaticity correction for the high energy ring, is presented.