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Progress on the 6BA lattice for ALBA-II

Wednesday, 10 May 2023 16:30 (2 hours)

The ALBA-II upgrade lattice to a diffraction limited soft X-rays storage ring calls for an emittance smaller than 200 pm*rad in a 269 m circumference at an energy of 3 GeV. In this paper we report on progress of the 6BA lattice with distributed chromatic correction. This lattice relies on transverse gradient dipoles and reverse bends to suppress the emittance. Several modifications to the lattice presented in 2021 have been introduced in order to easy the injection with high horizontal beta function and a longer section for the septum, to make more efficient the chromaticity correction with the sextupoles, and to provide room for the orbit correctors. The last performances of the linear and non-linear beam dynamics are presented in this paper.

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Footnotes

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Yes

Primary authors: BENEDETTI, Gabriele (ALBA-CELLS Synchrotron); CARLÀ, Michele (ALBA-CELLS Synchrotron); IRISO, Ubaldo (ALBA-CELLS Synchrotron); MARTÍ, Zeus (ALBA-CELLS Synchrotron); PEREZ, Francis (ALBA-CELLS Synchrotron)

Presenter: BENEDETTI, Gabriele (ALBA-CELLS Synchrotron)

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