

CONTROL OF DURATION AND TIME UNIFORMITY OF BEAM EXTRACTED FROM A SYNCHROTRON.

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Abstract

At the slow extraction of particles from a synchrotron the law of time variation of the intensity of extracted beam is primarily determined by the velocity of approach of the frequency of the betatron oscillations to the resonance value. The functional dependence of the required form of a changing of the exciting currents in the quadrupole lenses or in the gradient windings as the function of the beam particles distributions on the amplitudes of betatron and synchrotron oscillations is considered. The basic controlling parameters and the influence of the errors of control on the effectiveness of the work of the slow extraction system are discussed. The optimum algorithm of controlling actions according to the feedback principle is examined.

**CONTRIBUTION NOT
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