

Nonlinear Dynamics in Nuclotron, D. DINEV,
INRNE - Sofia - The paper represents an extensive study of the nonlinear beam dynamics in the Nuclotron. Chromatic effects, including the dependence of the betatron tunes on the amplitude and chromatic perturbations have been investigated taking into account the measured field imperfections. Beam distortion, smear, dynamic aperture and nonlinear acceptance have been calculated for different particle energies and betatron tunes.