Fringing Field Effects of Magnets in Cyclic Accelerators, <u>S. EFIMOV</u>, KFTI, Kharkov, Ukraine - Expressions for the tune shift of vertical betatron oscillations versus their amplitude are obtained by using Hamilton mechanics methods. Conditions of resonance excitations are considered. Expressions to compute the fringing field effects in the codes simulating beam dynamics, and the appropriate coefficients for use in practice are given. The fringing field effect on a dynamic aperture is illustrated by the example of the synchrotron radiation source ISI-800 designed in Kharkov.