

Synchrotron Radiation in Inhomogeneous Magnetic Fields, YU.A. BASHMAKOV - The radiation of electrons in inhomogeneous edge magnetic field of storage ring is investigated. Typical spatial distribution of the magnetic fields is discussed and the characteristic parametrization of this distribution is given. The law of the electron motion in such field and the form of the electromagnetic pulses arising at this motion are considered. Results of the numerical simulation of the angular and spatial distributions are given and the comparison with experimental data is carried out. It is shown that the electron radiation in inhomogeneous edge magnetic field of storage ring has a high intensity and directivity in the long-wave region of the spectrum, as well as many other attractive features for practical applications.