

**Preliminary Analysis of the Nuclotron Magnetic Field,** A.M. DONYAGIN, A.D. KOVALENKO, O.S. KOZLOV, V.A. MIKHAILOV, A.A. SMIRNOV, V.A. STCHEPUNOV, JINR, Dubna, Russia - The superconducting heavy ion synchrotron Nuclotron with circumference 251.52 m and maximum energy 6 GeV/u includes 96 dipoles and 64 quadrupoles. The dipole and quadrupole magnets have iron yokes and coils made from a hollow superconductor and cooled by a two-phase helium flow. This paper describes the apparatus for "warm and cold" magnetic field measurements, results of this measurements, criterions of the field quality control. The adjustment of the midplane in magnet's gaps and the magnetic field correction in the Nuclotron ring are also discussed.