

THE FUNDAMENTAL PROPERTIES OF TOROIDAL CURRENT STRUCTURES.

Eugene Aleksandrovich Grigor'ev*

Russia, 198412, St.-Petersburg, Lomonosov, Krasnogo Flota st., 5-20

***Corresponding Author:-**

We show the existence of an external magnetic field and internal structure the magnetic field in toroidal structures with a poloidal current.

*In January 2000, made a scientific discovery - the first time in electrodynamics numerically calculated and experimentally measured external magnetic field (MF) elektrovodnoi toroidal structures with a poloidal current (Fig.1). Earlier, in classical electrodynamics, it was considered impossible. The history of the discovery and its implications can be found on the websites <http://thermonuclear.narod.ru> and <http://thermonuclear.ru> Arrows labelled **i**, shows the vectors of the elements of the current. The Torah was considered with a ratio $R/r \approx 1$ and $R/r \approx 2$. The calculation results are displayed in graphs Cantor. The lines on the charts show the cross section of surfaces of equal tension of the MF. The graphs – in relative units The direction of the intensity vector, MF is perpendicular to the image plane, as lines of force MF are purely azimuthal (or tangential or tangent to the circle that lies in the XY-plane and centered on the Z-axis) component. Initially, MF was calculated within the Torah.*

The torus with the relation $R / r \approx 1$ (Fig.1).

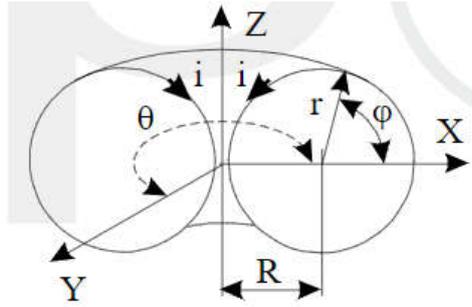


Fig.1

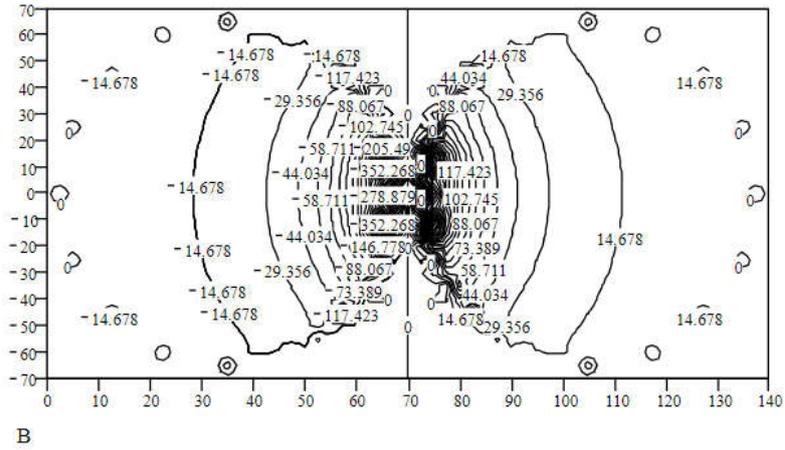


Fig.2

The torus with the relation $R / r \approx 2$ (Fig.3).

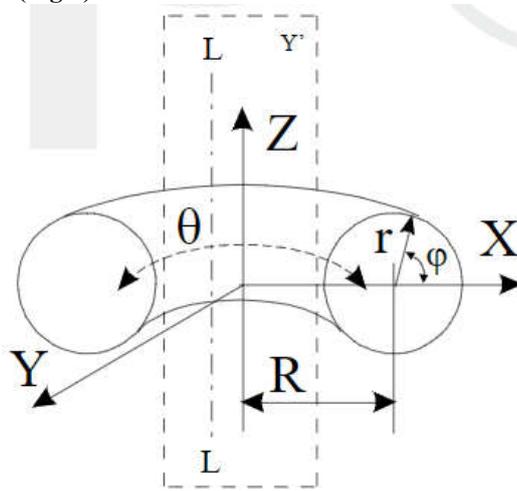


Fig. 3

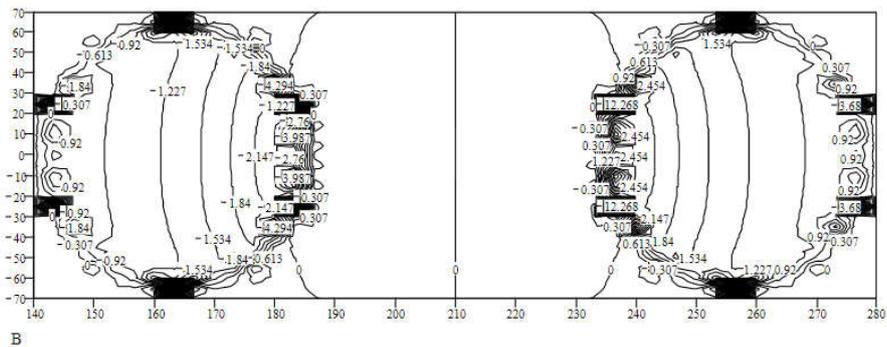
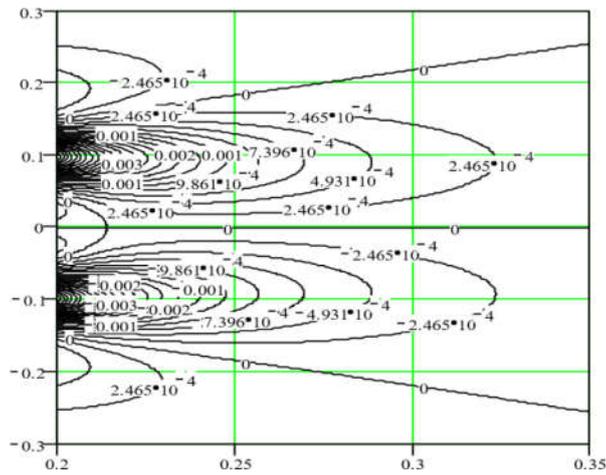


Fig. 4



B

Fig.11

The structure of the external magnetic field of a segmented torus in the plane Y' (XZ) in the form of a graph of the Cantor. Shows cross section of level surfaces of equal tension of the MF. The intensity vector is directed perpendicular to the plane of the drawing.