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MOVING COORDINATES IN ELECTROMAGNETIC FIELD OF DEVICES WITH MOVING CONDUCTORS

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Authors

O.Ya. Konovalov*, **V.M. Mikhailov**

National Technical University “Kharkiv Polytechnic Institute”,
Bagaliia str., 21, Kharkiv, 61002, Ukraine,
e-mail: valery.m.mikhailov@gmail.com

* ORCID ID : <http://orcid.org/0000-0002-0679-4214>

Abstract

On the conductive shell example the problem of using moving coordinates in calculations of electromagnetic field within conductive body, which moving with non-relative velocity is analyzed. Cases with unknown external magnetic field are observed. A necessity of reverse transition from coordinates, which moving with conductive body, to initial still coordinates is justified. Calculation results of magnetic pulse forming of cylindrical conductive shell by external coil, on which capacitor discharges are presented. The changing of shell thickness is considered. It was founded, that after expansion and stopping the shell the compression with higher velocity. References 7, figures 3.

Key words: magnetic field, moving conductive body, moving coordinates.

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