

Induction equations for fundamental fields and dark matter

Zhuravlev V.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2017, Pleiades Publishing, Ltd. The paper outlines some aspects of the theory of gravity and electromagnetism based on a topology-geometric interpretation of matter and its properties as manifestations of a non-Euclidean geometry of the physical hypersurface of dimension 3 embedded in a Euclidean space of dimension 4. We derive the basic equations of the theory, leading to equations similar to those of the classical theory of gravity and electromagnetism as well as those of quantum theory. It is shown that in this theory the observed effect of a hidden mass, or dark matter, is explained in a natural way by effects of the geometry of the physical hypersurface.

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