MATHEMATICA, Tome 49 (72), N° 2, 2007, pp. 107–115

MAXWELL EQUATIONS ON THE SECOND ORDER TANGENT BUNDLE

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Abstract. We generalize the geometrical theory of electromagnetic fields in [7] to the second order tangent bundle T^2M endowed with an arbitrary N-linear connection and, by defining the current density J, we give an analoguous of the charge conservation law in the second order differential geometry.

MSC 2000. 53B21, 53C60, 70 G45, 70H50.

Key words. k-tangent bundle, nonlinear connection, N-linear connection, deflection tensor, Maxwell equations.

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Received January 1, 2007

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