

# Kinetic equation for a system of supersymmetric Dirac particles in electromagnetic and gravitational fields

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## Abstract

Using the algebra of anticommuting variables, we formulate the Liouville equation for a system of supersymmetric Dirac particles acted upon by gravitational and electromagnetic fields. A macroscopic equation is obtained for the spin tensor. A generalization of our equations is made to the case of space-time with torsion. Exact solutions are found for a Boltzmann gas and for a collisionless neutral gas in the field of plane gravitational waves. © 1985 Plenum Publishing Corporation.

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