

# Cosmological evolution of the degenerated plasma with interparticle scalar interaction. II. Formulation of mathematical model

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## Abstract

Based on the relativistic kinetic theory, relativistic statistical systems with scalar particle interaction are investigated. A self-consistent system of equations describing the self-gravitating plasma with scalar interparticle interaction is formulated, and macroscopic conservation laws are derived. A closed system of equations describing cosmological models is derived in which the matter is the plasma with scalar interparticle interaction. © 2012 Springer Science+Business Media New York.

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## Keywords

cosmology, gravitation, plasma, scalar interactions