

# Exact kinetic model of restoration of thermodynamic equilibrium in an accelerating Universe

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## Abstract

An exact mathematical model of restoration of thermodynamic equilibrium in an initially nonequilibrium Universe in the energy region above the unitary limit is constructed. An exact solution of the equation of energy balance is given, on the basis of which it is shown that in an accelerating Universe in contrast to a decelerating Universe thermodynamic equilibrium can never be established. © 2013 Springer Science+Business Media New York.

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## Keywords

acceleration of the Universe, cosmology, relativistic kinetics, violation of thermodynamic equilibrium