

# **LIFETIME OF NONEQUILIBRIUM STATISTICAL SYSTEMS AND LIFETIMES OF NEUTRONS IN THERMAL NUCLEAR REACTORS**

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It is supposed that the nonequilibrium statistical operator implicitly contains the lifetime. The operations of obtaining taking of invariant part, averaging on initial conditions is used in works of D. N. Zubarev, temporary coarse-graining (J. G. Kirkwood), choose of the time direction are replaced by averaging on lifetime distribution. The expression for average lifetime of nonequilibrium system is derived. General expressions obtained for nonequilibrium lifetime of statistical systems are applied for consideration of neutron system in nuclear reactor.