ON BOGOLYUBOV'S PRINCIPLE OF CORRELATION WEAKENING

R. Luzzi, A. R. Vasconcellos, J. G. Ramos

Instituto de Fisica 'Gleb Wataghin", Universidade Estadual de Campinas, Unicamp (*13083-970 Campinas, São Paulo, Brazil*)

Bogolyubov's principle of correlation weakening and the accompanying hierarchy of relaxation times provide fundamental bases for the development of nonequilibrium ensemble formalisms. A very promising one is the so-called MaxEnt-NESOM. Within the framework of this formalism, we analyze the role and validation of Bogolyubov's principle. We consider the case of a highly excited photoinjected double-plasma in polar semiconductors. It is shown that several kinetic stages in Bogolyubov's sense can be characterized, accompanied by succesive contractions of the description of a macroscopic state of the system.