

THERMALIZATION IN HEAVY-ION COLLISIONS

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S u m m a r y

We propose a model for isotropization and corresponding thermalization in a system formed after the collision of two N -particle systems (two nuclei). Two-particle collisions are taken into account. The model is based on two assumptions: (i) three collisions exerted by every particle give rise to the total randomization of its momentum and (ii) the single-particle momentum space is confined from above due to the finite total energy of the system. These features have been shown to result in a smearing of the particle momenta about their initial values and, as a consequence, in their partial isotropization. The nonequilibrium single-particle distribution function has been obtained.