

THE EVOLUTION EQUATION
FOR THE MICROSCOPIC PHASE DENSITY
OF INELASTICALLY COLLIDING PARTICLES

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S u m m a r y

A dynamical system of spherical particles is studied on the basis of a model mechanism for the momentum and angular momentum exchange. In the model of absolutely hard balls with rough surfaces, a mechanism for the momentum and angular momentum exchange under collisions is proposed. For this model, the equation of evolution for the delta-function microscopic density in the nine-dimensional phase space is obtained. In case of the system bounded by an inelastic wall, the obtained equation is modified taking into account the boundary conditions.