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Propagation processes of correlations in the system of hard spheres

Tuesday, 21 December 2021 11:10 (20 minutes)

In this talk we consider an approach to the description of the evolution of a state by means of both reduced distribution functions and reduced correlation functions, which is based on the dynamics of correlations in a system of hard spheres. It should be emphasized that the generating operators of solution expansions of the corresponding hierarchies of evolution equations are induced
by the generating operators of an expansion of the Liouville hierarchy solution
for a sequence of correlation functions.
In the talk an approach to the description of the state evolution of a system of hard spheres by means of the state of a typical particle determined by the generalized Enskog equation is also discussed or, in other words, the foundations of the correlations evolution description by kinetic equations are considered.

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