In quantum statistics the n- body thermal, or imaginary-time, Green's functions in the Grand Canonical Ensemble are defined as the thermal trace of a time-ordered product of the field operators in the imaginary-time Heisenberg representation [4-5]. To calculate them in each order of perturbation theory, Wick's theorem is also used. Obviously, in this case the theorem also may be formulated in the form (2) convenient for practical calculation.

Representation (2) not only greatly simplify all calculation, but also allow one to perform them using a computer with programs of symbolic mathematics [6].

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Evaluation of the evacuation parameters from multi-storey buildings by Hierarhical Petri Nets

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The aim of this research is to evaluate the evacuation parameters from multi-storey buildings by using Hierarchical Petri Nets[1], for these the specificity of building construction will be taken into account. Extensions of the Petri Nets are applied successfully in various fields. Especially in the area of emergency and disaster management [2]. For modeling of the movement of human flows in the process of evacuation from multi-storey buildings the norms in construction will be applied. These norms are developed by The Normative Supervision Section of Buildings and Fire Department [3] in the Republic of Moldova. The parameters related to traffic intensity in rooms, formation of cluster of people, diffusion of human flows and reforming of the human flows will be evaluated.

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