

INTEGRABLE THEORY FOR THE PROBLEM OF NOISE POWER FLUCTUATIONS IN CHAOTIC CAVITY

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ABSTRACT. A problem of the noise power fluctuations in the crossover regime between thermal and shot noise in chaotic cavity will be discussed. In the universal transport regime under assumption of broken time reversal symmetry the problem can be resolved by the methods of integrable theory. With the help of this powerful technique we derive a system of non-linear recurrency relations for the joint (Noise power – Landauer conductance) cumulants. It is shown that the system can be resolved for any joint cumulant of a finite number while analysis in the limit case of the large number of propagating modes leads to a closed expression for any cumulant.

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