

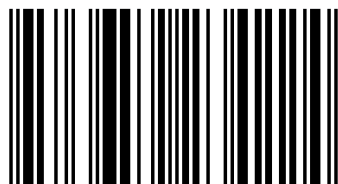
What to do if there are no reliable small parameters in a physical system like a moderately or strongly coupled plasma and we have to describe its modes and other dynamic properties? Apply the method of moments! It is a mathematical approach dating back to the works by T.J. Stieltjes and M.G. Krein. We show how it works and describe its new fruitful modification, the method of moments with local constraints. Results of the moment approach application are provided. Destined to Ph.D. students in Statistical and Plasma Physics.

Method of moments and plasma physics



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Graduated from the Odessa State University (Ukraine, U.S.S.R) in 1972, with honors, Ph.D., Kiev State University, 1976. Dr. Sc. degree defended at the Odessa State University, 1992. Same year invited by the Universidad Politecnica de Valencia to work in Spain. Currently a full Professor at the UPV Dept. of Applied Mathematics.



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The Method of Moments and its Applications in Plasma Physics

How to find the dynamic properties of dense
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