

LINEAR MODEL FOR A DUAL DISTRIBUTION THERMODYNAMIC SYSTEM

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Abstract

We consider the case of a thermodynamic system that may have two possible distributions at any time. A linear combination of the two distributions is proposed for the observed distribution of the system. A brief mathematical analysis is given. The thermodynamic parameters of the system are determined in the canonical ensemble. Further, we deduct an equation for the coefficients of the linear combination at the emergence of one of the extreme distributions from the other.

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