

# Equilibrium Distributions in Open and Closed Statistical Systems

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(Submitted on 19 Jan 2010)

In this communication, the derivation of the Boltzmann-Gibbs and the Maxwellian distributions is presented from a geometrical point of view under the hypothesis of equiprobability. It is shown that both distributions can be obtained by working out the properties of the volume or the surface of the respective geometries delimited in phase space by an additive constraint. That is, the asymptotic equilibrium distributions in the thermodynamic limit are independent of considering open or closed homogeneous statistical systems.

Comments: 5 pages, 0 figures

Subjects: **Chaotic Dynamics (nlin.CD)**; Statistical Mechanics (cond-mat.stat-mech); Statistics (math.ST)

Cite as: [arXiv:1001.3327v1](https://arxiv.org/abs/1001.3327v1) [nlin.CD]

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