

Review of: "On the statistical arrow of time"

Janos Polonyi¹

¹ French National Centre for Scientific Research

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This is a nice and easily readable essay about the evergreen subject of the statistical time arrow. My remarks and suggestions are the following:

- The homogeneous probability distribution in a continuous space is not an indication of equilibrium or maximal entropy state since the distribution depends on the choice of the coordinate system. The usual origin of the homogeneity is a symmetry.
- The flow of probability, followed in the coordinate space, should be extended over the phase space. Such a generalization leads to the usual Liouville theorem and restores ergodicity.
- The paper would gain strength by the removal of the well known points and/or the references to the current state of their understanding. For instance a similar relation of the second law and the time arrow has been discussed in a number of papers, eg. A. J. M. Garret in Maximum Entropy in Action, ed. B. Buck and V. A. MacAulay Clarendon Press, Oxford, 1991.
- The existence of a time arrow can be detected by computer guided devices: One records a process and checks by a suitable computer program whether both the original and the reversed recording satisfy stable equation of motion. This is compatible with the subjective interpretation of probabilities.