

Review of: "Tsallis Entropy applied to microfluidic channels analysis"

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Potential competing interests: No potential competing interests to declare.

In this article the authors investigated the fluid flow in a microchannel using the concept of Tsallis entropy and explored the possibility to evaluate the presence of geometry imperfection and their influence on the flow. Although the work appears to be original, but the quality of the manuscript may be improved further. The following are my recommendations:

1. The presentation in this paper is clumsy. It should be written in proper English.
2. The article may be rewritten to minimize typo errors and grammatical errors.
3. The abstract should preferably be written in the present tense. It may begin like "In this work we investigate..... the concept of Tsallis entropy was employed.....The final goal is to demonstrate that information theory can be used to explain physical observations, even in those cases are intractable, and which are affected by a budget"
4. The article should have a proper section named "Introduction" where the importance of this kind of investigation is explained, with a review of works related to fluid flow in a microchannel, review of works related to the application of Tsallis entropy, and an explanation why it is useful to apply the concept of Tsallis entropy in this context.
5. The article should have proper citation to all relevant works. Further, the reference to Marta's work is not given, which should be inserted.
6. The author states that: "This formalism has already been applied in the field of fluid dynamics, particularly to determine velocity profiles in an open channel hydraulic system." Proper citations should be given to corroborate this statement.
7. The author should provide the geometry of the microchannels for the obstacle considered in this work and mention the boundary conditions used for computational analysis.
8. Two figures are named Figure 1. If they are identical, then one must be removed. Moreover, the interpretation of each figure should be explained clearly in the text.
9. The author has discussed future possibilities in the Section on "Conclusions and possible developments", but less on the summary and significance of this work. I suggest that the conclusions drawn from this piece of investigation should be stated in greater detail in this section, before discussing the future possibilities.