

CERTIFICATION FOR THE PEER REVIEW PROCESS &
EVALUATION OF THE PEER REVIEW PROCESS &
CERTIFICATION FOR NON EXISTENCE OF ARTIFICIAL CITATIONS

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I declare, I confirm, I certify and I sign that I received substantial, important, line by line peer review with several and substantial comments, important remarks and hints from, at least, 3 Reviewers and the Assistant Editor for my paper:

Stability Analysis for Complex Rotational Flow

with Authors: IVAN V. KAZACHKOV.

I would like to thank all the reviewers for their thoughtful comments and efforts towards improving our manuscript. We revised the manuscript with special attention to the comments that we received from, at least, 3 reviewers that they were experts, specialist in the area of my paper.

I declare, I confirm, I certify and I sign that also that no Associate-Editor, no Editor-in-Chief, no member of the WSEAS Secretariat forced me in this Journal to add references (citations) to any previous publications of this journal. I declare, I confirm, I certify and I sign that that I have made all the changes, modifications, additions, studies, corrections asked by the reviewers and I have fully complied with their instructions. I also understand that before the publication the 3 (or more than 3) reviewers will check my paper to see if all the changes, modifications, additions, studies, corrections etc have been done and I authorize the WSEAS to publish my paper or to reject my paper even in the 2nd round of peer review or to continue with an additional round of peer review.

Please, write additional comments below (take ideas from:

<http://wseas.org/main/author-testimonials.html>)

Many thanks to the 3 reviewers for their scrupulous work with reading my paper and advices for changes, which require from me a lot to do for the improvement of my paper but I really see it is going to be much better after improvement done. Despite additional time and efforts needed for this my work, I appreciate it very much because it helps me to master myself as an expert in heat and fluid flow and as the writer of scientific paper. It helps to produce papers at higher standard than I can do myself, without such good references from outside.

Below I place detail answers to all the stated critical comments of the 3 reviewers:

Reviewer(s)' Comments to Author:

Reviewer1:

In general, the article is a relevant, interesting and easy to read. At the same time the article raises a number of comments and suggestions.

1. Abstract need improvement in writing related to the fields it is covering.

Done

2. The introduction section lacks a description of the research gap. More publications should be cited and analyzed.

Done

3. The author should better highlight the novelties and the main contributions of their paper with respect to previous works on the subject. In fact, the degree of innovativeness of the methodological approach is not convincingly demonstrated. Some more details about its innovative features could further improve the quality of this paper.

We have carefully studied literature and did not find any paper, where any fluid flows under double rotations were considered. In this case as shown in Fig. 2, the centrifugal forces are varying by the angle of rotation of the flow. What is more, there are positions with the stretching liquid, which may cause strong cavitation effect, which is nearly unknown for the moment.

4. The author needs to more accurately describe the purpose and objectives of the study.

Done, including the above mentioned. Also something was already stated in two earlier published papers referenced in this paper.

5. What is the perspective of the future work? I recommend to better discuss on possibilities and limitations of the use of such analysis.

Done. Two paragraphs were added at the end of 1.2

6. The authors must include many more related references.

We added 5 more references.

Additional Questions:

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Does the paper contribute to the body of knowledge?: The author should better highlight the novelties and the main contributions of their paper with respect to previous works on the subject.

Done. Two paragraphs were added at the end of 1.2 and some more in 1.1.

Is the paper technically sound?: Yes

Is the subject matter presented in a comprehensive manner?: The introduction section lacks a description of the research gap.

We have improved this.

Are the references provided applicable and sufficient?: The authors must include many more related references.

Done.

Recommendation: Accepted after revision.

Reviewer: 2

It is mentioned there are other works belong present authors in the same field. What are the relationship between them and the present work.

We have improved this.

The figure '1.The schematic of centrifugal forces in flow of the double rotating coordinate system' is of poor quality. The authors have to correct it. The font size should be increased because the text in this figure is illegible.

We corrected Fig. 1 and divided it into two figures of better quality.

This paper describes the results but little discussion is included, therefore the authors should improve notably the discussion of their results to show the scientific contribution.

Done.

Conclusions must summarize the work presented within the paper. The conclusion section should be extended.

Done including the following. The revealed features of the flow stability are important for the testing and further application of the new device [2]. Also it is of interest in theoretical development of the fluid flow under double rotations unknown for the moment.

Additional Questions:

Does the paper contribute to the body of knowledge?: There is a contribution to the knowledge.

Is the paper technically sound?: Yes.

Is the subject matter presented in a comprehensive manner?: Revision is required. See the comments.

Are the references provided applicable and sufficient?: More references should be analyzed.

Recommendation: Major Revision.

Done according to the requirements from the mentioned.

Reviewer: 3

"...because by high frequency of rotation it is not available high frequency of oscillations". The authors have to specify the range of the "high frequency" in this sentence.

In the paper, the estimation was performed by the order of values for simplification of the analyzed expressions.

Conclusions: "The theoretical results may be useful for further development, as well as for practical application." The authors have to explain better this sentence.

More details about the 'further development' and the 'practical application' would be useful.

Done. Including the following. The careful study of the literature did not reveal any papers about the fluid flows under double rotations like in was presented in the invented and tested by Kujtim Hyseni device [2]. In this case, as shown in Fig. 2, the centrifugal forces are varying by the angle of rotation of the flow in a turbine located on the horizontal disk rotating around the vertical axis.

Volumetrically distributed can be only mass forces, which are rarely met, e.g. electromagnetic or centrifugal ones. In the unique considered case, as shown in Fig. 2, there are positions in a flow with the stretching liquid, which may cause negative pressure and strong cavitations effect nearly unknown for the moment. Some first attempts in this direction were made in [1, 2]. And further investigation is presented here for stability analysis of the complex rotational flow.

Must clarify the applicability of the proposed analysis.

Done. In particular, as mentioned in the above presented.

The authors can enlarge the explanations for why the stability analysis is important for the model of the complex rotational flow.

Done.

Additional Questions:

Does the paper contribute to the body of knowledge?: The authors can enlarge the explanations for why the stability analysis is important.

Done, e.g. in conclusion we added: The revealed features of the stability properties of the flow studied in paper are important for the testing and further application of the new device [2]. Also it is of interest in theoretical development of the fluid flow under double rotations unknown for the moment.

Is the paper technically sound?: Yes.

Is the subject matter presented in a comprehensive manner?: Some points need explanations.

Done.

Are the references provided applicable and sufficient?: Yes.

Recommendation: I recommend accepting the manuscript.

Signature (insert an image file with scanned signature or print out the whole page, sign and scan)

Date: 2.08.2021

