REVIEWS ON THE MANUSCRIPT [34]

Some qualitative theoretical explanations have been added in accordance with the second reviewers comments. But I cannot meet the demand to comment and investigate the frequency of the sound. The reason for this is that, as is stated in the manuscript, wee deem the relevant part of the sound to be the noise of the papers hitting each other. By noise, we understood a sound without a set frequency. To stress this a few clarifications have been added to the manuscript. The only frequency relevant to the noise that we believe this problem refers to is how often the paper strips hit each other (because it is used by the autocorrelation).

A slight clarification has been added to the explanation of the regimes in terms of how the papers come in contact (if they do) to clarify why the noise is heard. Also, a qualitative theoretical explanation was added as to how the regimes are formed using the Reynolds number dependence to estimate the turbulence around the paper. A sketch of the regimes has been added to Figure 3.

ranges.)
Please provide reference for the "*public-accessible NASA air-tunnel design*" if exists.
Explain how the velocity is being measured in the tunnel.

The laminarity of the flow in the empty tunnel has been confirmed through an experiment using a thread and smoke to trace the streamlines, so the flow is indeed experimentaly confirmed to be laminar and I have added this information to the manuscript.

As for the flow turbulence being the reason for the regimes, I agree and it has been added to the 4.1. part as stated above. The point is to differ the laminarity of the flow in the tunnel itself, and the flow around the obstacles (i.e. paper strips). The tunnel is designed not to introduce turbulence in addition to those formed by the the obstacle that is being observed.

The tunnel used the Baals Wind Tunnel concepts and basic ideas, but the details of the construction and the measuring section (the leverage to measure lift and drag that was not used in this problem) are the original idea of the previous Croatian IYPT team and the detailes of the construction and parts can be found at the link given in the second reference.

The power source was calibrated to velocity, this information is also added to the manuscript.

"3.2. Paper holder": "*two polystyrene holders were made to be aerodynamic*" this is an unclear sentence.

This sentence has been modified along with the soroudning text to be clearer. I hope that it is better now.

Figure 2 lacks in contrast. Consider making it clear by changing the colors.

The colours have been changed to provide more contrast

"**4. Measurement**": "*We believe that the noise that the problem text refers to is the loud flapping noise made, when more strips are present, from the strips hitting each other.*" This sentence is unclear.

This sentence refers to our interpretation of the problem. We believe that the noise mentioned in the text of the problem is the noise made by the strips hitting each other. I have tried to make this clearer through the manuscript.

"**5. Results**": "*It can also be seen that the more papers we have, the lower the velocity at which they begin to oscillate, but also the lower the velocity at which they go to the chaotic regime.*" It is not clear how this conclusion was extracted from the results. Especially about the boundary of the chaotic regime, the plots do not seem to be in agreement with this conclusion.

This sentence still refers to the Figure 6. In Figure 6, by observing the velocities at which the data start to appear on the graph for various number of strips, it can bee seen that

the data for 1 and 2 strips start above 4 m/s while for 3 and 4 strips that is just above 3 m/s. As for the transition to the chatioc regime, 1 and 2 strips undergo this transition just below 8 m/s, while 3 and 4 do the same already at 5.5 m/s. This is clearly shown in the graphs in Figure 6. So I still stand behind the quoted sentence, this conclusion was extracted directly from the graphs in Figure 6. A sentence of clarification has been added to the caption.

Figure 7 needs to have some information about the velocity in which it was achieved.

The velocity has been added to the caption.

"*Similar graphs at different air-flow velocities show that the destruction of the paper strips gets more intense the faster the air-flow.*" Better to show the plots.

The other plots have been omitted due to lack of space. I can entirely remove this sentence so it doesn't sound speculative but I believe it is useful information.

"*For the four paper strips the fit is y=3.13x+6.19, and for the plastic strips y=2.33x+5.12, with y being the air-flow velocity and x the noise intensity.*" Provide units for this sentence.

The units for the formulae in this sentence would be the ones on their recpective graphs, which means velocity is in m/s but the noise intensity is in arbitrary units due to the fact it is an artefact of the autocorrelation procedure. Thus I am unfortunately not able to provide units for this sentence unless it be a.u. .

"**6. Conclusion**": Consider correcting the typing error "dana" to "data".
If the result of this paper suggests a method for wind velocity measurement, it may help if at the end you mention the accuracy of your method and the ranges in which it works.

The correction has been made and the comments and additional information added to the conclusion.

Editorial request:
Consistency of spelling: Please use a blank spacing between a numerical value and its dimension (5 cm, not 5cm).

The blank spacing is added.

Figure 5: Improve the scale. Most importantly, the numbers are too small and will not be seen upon publication.

The numbers in the picture are very small and can not be enlarged because the picture ifself is a screenshot of the autocorrelation process. The numbers are not really important for the Figure. They would demand much additional explanation in order to be

interpretabe and that is not possible here. The main idea of the Figure 5 is to ilustrate the method of autocorrelation analysis and the graphs and peaks used in the explanation.

References: Clarify what parts of the text cite or rely on the references [1] and [2]. What particular information is used from these two references?

The references have been edited, and the superscript indexes added into the text.