

REVIEWS ON THE MANUSCRIPT [19]

Reviewer 1:

I hereby recommend the manuscript # [19] for publication. There are some minor drawbacks, but they can be corrected quickly.

Generally, my impression of the article is positive. Explanation of the phenomenon seems to be rather clear, but there are some remarks concerning the physics and the way of presentation.

2.1. "Theory/Soap film". What is the thickness of the film? Is it really between a few nanometers and micrometers, or this is a kind of misprint in the text?

2.2. "Soap in the electric field". I would advice to call this "soap film", or something else, but not just "soap".

Is there a difference between Fig. 3a and 3b? If yes, that is unclear from the picture; if no - than why the two pictures are identical?

One should notice that quality of images will reduce while printing on the paper, so the pictures may become unclear.

3. "Apparatus". Firstly, that is a bit confusing that the author used plates (without of hole) instead of wires. If there was a reason for that, it should be mentioned. I think that using a flat object like a plate instead of a wire loop could have influenced on the edge effects, like the angle between the film and the base. However, it definitely doesn't have much effect in the middle of the film, so that should be generally OK. Consider a commentary to clarify the issue.

Fig. 7a, there is misprint in word "view". And yes, "hole" instead of "whole".

Fig. 7b, numbers below the axes are not visible even on my laptop screen. That will become even worse when printed on paper. Authors should consider enlarging the font. Generally, that concerns all graphs in the manuscript.

I think that additional explanations and maybe some evidence or proof are needed for the statement related to the graph 4. Why should one conclude that geometrical parameters of the parabola do not depend on the circle radius? At least, how can this conclusion be drawn from the data on the graph?

I think that the work can be published after clarifying all mentioned issues.

Reviewer 2:

The general structure of the paper is very good. The authors have made qualitative and numerical model of the phenomenon and made brilliant experiments.

Remarks and suggestions to the paper:

1. "electrical field (voltage)" : field and voltage are mixed here, but they are completely different physical parameters.

2. Two cases of isolated and grounded films could be described graphically (sign of ground or isolation)
3. “here the potential is zero” : where is “here”?
4. **“that’s why opposite charges of the one causing electrical field come in the middle of the film and elongates the film” : it’s not the reason for the film to change its shape. The charged film is just attracted to the point charge and the center is the closest point.**
5. 22.3 should be 2.3
6. “but is positive directions” : “directed oppositely” is better
7. **Theory works only for small deformations**
8. **Vibration was observed in the experiment but no explanation provided**
9. **No radial field in the theory, but such an experiment provided**

Editorial request

Figures 3a and 3b : note that the Reviewer 1 failed to distinguish two shades of gray on the picture. When printed, it would be even more difficult. Consider visualizing the charges with larger and better visible “pluses” and “minuses”.

Figures 6, 7a : consider adding a scale bar.

Figure 8 : consider making the x-axis and the y-axis more legible.

Homogenous field : uniform field?

References: The list of references is not typeset properly. Please type the references in a way that the readers may immediately understand where and how they may look for a document. If both references are books, add the names of publishers and the years of publication. Consider adding URLs if the books are available online.

What parts of the manuscript cite or rely on each of the references?