Title of paper: Balance Circumstances of Planetary Atmospheres and Causes of Gaseous Escape and Collapse of Earth's Ozone Layer

Reviewer of paper: Catalin Silviu Nutu

This manuscript presents various interesting data and facts about atmospheres of different planets of the solar system and other information related to the title of the manuscript. It intends to explain the equilibrium conditions of the atmospheres of planets and deals, among others, with all sort of facts and data related to the concept of atmosphere.

At a first glance, this manuscript, although written in a barely readable English, may seem very interesting. However, in the form that they are presented, some of the scientific explanations are essentially wrong from the point of view of the mathematics and physics of the equilibrium state presented.

The condition of equilibrium regards (according to the manuscript) the equality between the gravitational force and the force of pressure, but from scientific point of view the gravitational force, being a force is measured in Newtons (N), whereas the pressure is measured in Newtons per square meter (N/sqm), so an equality between those two is impossible to exist. This error is many times exhibited in the manuscript, inclusively in the page 50 of it. This page and others should be either corrected or completely removed from the manuscript, since they are scientifically incorrect.

The manuscript should better explain and clearly state that there is an equilibrium between the gravitational force and the forces caused by the pressure differences between the layers of the atmosphere, not by the pressure itself, as it is explained below:

The actual explanation regarding the mentioned equilibrium condition, is that the gravitational force is in balance with the force caused by the differences in pressure between the atmospheric layers, taking into account that the atmospheric pressure decreases with the altitude.

So, from the point of view of this explanation, on which the entire manuscript is based upon, the manuscript should be revised. If it is not possible to provide a more

solid mathematical foundation for the above explanation, then the manuscript should at least present this equilibrium in a proper manner.

The English of paper is, as mentioned, barely readable. The infinite long phrases are almost impossible to be read and understood. They MUST be split into appropriate understandable phrases and sentences. Moreover, the entire English of the paper should be seriously and completely revised, since is faulty also from other reasons: wrong or inappropriate words, grammatical errors and other various language errors.

However, although taking into consideration all the above presented weaknesses and shortcomings, the manuscript also contains a lot of interesting data and information which are useful to understand the concept of atmosphere, facts about it and the implications of human actions.

There are presented the atmospheres of the planets in the Solar system with their characteristics, taking into account the equilibrium factors: their masses (gravitational forces), their gas compositions, temperatures and their distances from Sun.

There are very good presented the factors causing gaseous escapes of the Earth's atmosphere and statistical data regarding the pollution with gas emissions by each industry. The largest polluters of the Earth's atmosphere by country, the causes for the decomposition of the ozone layer, the airglow phenomenon, and various other interesting data and phenomena regarding the Earth's atmosphere, are also presented.

Conclusions of the reviewer:

It is absolutely necessary to completely revise English of the manuscript.

If it is not possible to appropriately complete and improve the mathematical model presenting the equilibrium condition, then it is absolutely necessary to make the corrections mentioned, regarding the scientific explanations of the equilibrium condition of the planets' atmospheres. Also, possibly add some other additional explanations for the reader of the manuscript regarding this equilibrium condition.

Remove or correct page 50 and all pages which contain the same type of error.

The manuscript addresses one of the most important issues of our planet, and it contains a lot of interesting and useful data.

Therefore, it is recommended to be published, after making all the necessary corrections and improvements