



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_34187
Title of the Manuscript:	Semi Empirical Model of Global Warming Including Cosmic Forces, Greenhouse Gases, and Volcanic Eruptions
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments		
Minor REVISION comments	<p>The methodology of this study is very solid, and its result and analysis are also logical and actual. This manuscript needs minor revision with following suggestions</p> <ol style="list-style-type: none"> 1. In equ. (4), the parentheses) is extra. 2. In equ. (5), You should change 0,0028623 to 0.0028623. And you should describe the mean of 0.0028623 and 0.000009. 3. In addition, authors illustrated the equations of data analysis methods, and analyzed the results of the collected CO₂ data. But how can we make the assignment of each parameter? Are they constant, or variable? 4. In section 2, there is no discussion about data manipulation; rather, we are simply told that the data is from 1610 to 1890, and from 1880 to 2015. 5. I am confused by the text in Figure 5. 	<p>1. Eq. (4) has been deducted from the energy balance of the Earth by equalizing the absorbed and the emitted radiation fluxes:</p> $TSI (1-\alpha) (\pi r^2) = s T^4 (4 \pi r^2)$ <p>Therefore the eq. (4) is the correct form.</p> <p>2. I have changed the decimal comma to the decimal point. I have added text describing the calculation of eq. (5).</p> <p>3. I am not sure to which part of manuscript the reviewer is making a reference. I suppose that it could be about the calculation bases of equations (1) and (2) on page 6. I have not done any analyses on the CO₂ data but I have referred the warming effects of CO₂ as represented by IPCC and Ollila. Because both equations are the end results of published papers, I have referred to those papers. Readers can find detailed descriptions in these papers but I do not think it is possible to describe the lengthy calculations in more details in this paper.</p> <p>1. Firstly, I would like to clarify that I have not used the term "Data manipulation" in this paper. I have explained the groundings, why I have preferred to use the average of two older versions of the global temperature data sets for the period (1880-1979) before UAH satellite measurements. In the same way I have explained, why I have used the average three data sets from 1610 to 1880. I think that it is beyond the scope of this paper digging into more details, why a certain temperature data set is better than the other. As far as</p>



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		<p>I know this issue is still very open among the climate researchers, and each researcher uses a favourite of his/her own. As realized in the text, there is no commonly accepted temperature data set even among the direct temperature measurements.</p> <p>2. Figure 5 is a schematic picture and it is a copy produced by the author according to the original figure of the reference 40. I cannot improve it without further details from the reviewer.</p>
<u>Optional/General</u> comments		