|  |  |
| --- | --- |
|  | |
| Journal Name: | [**Asian Journal of Probability and Statistics**](https://journalajpas.com/index.php/AJPAS) |
| Manuscript Number: | **Ms\_AJPAS\_133553** |
| Title of the Manuscript: | **On Propositions Pertaining to the Riemann Hypothesis IV** |
| Type of the Article | **Original Research Article** |

|  |  |  |
| --- | --- | --- |
| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **All these discussions, hypotheses, and results are very important and will surely improve the knowledge of the distribution of prime numbers and open new areas of mathematics.**  **Riemann's paper on the distribution of prime numbers is his only text dealing with number theory. He develops the properties of the zeta function C(s) and proves the prime number theorem by admitting several results, including what is now called the Riemann hypothesis (RH). Hardy later showed that there are infinitely many zeros on the critical line, which gives us hope that RH is true.**  **Therefore, I highly recommend the work coming from this rich paper.** | I have now made changes to the paper based on your comments. Thanks! |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **yes** |  |
| Is the manuscript scientifically, correct? Please write here. | Yes, it is correct. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | yes |  |
| Is the language/English quality of the article suitable for scholarly communications? | yes |  |
| Optional/General comments | ***Page 2***   1. ***Z0(s) = (1, 0)*** : **Explain exactly what it is.** 2. It will be useful to prove a theorem involving lower bounds for a sum of vectors in the complex plane. **To explain in more detail.** 3. For any *z ∈* R2, denote as *θ*(*z*) *∈* [0*,* 2*π*), the angle corresponding to the complex number *z*. **Express in another way (using complex numbers).**   Page 3   1. Note that the angle between **… The second sentence at the beginning of the page is misspelled (maybe it is not correct). I think you meant: Note that the angle between z1 and z2 is equal to the angle between [z2, z′] and [z2, z1 + z2].** 2. **Between (2.5) and (2.6) you have skipped steps.**   Page 4   1. **In (2.14): you have to explain what q(n) is, moreover there is an error it is Z^m.**   Page 6   1. **In (2.20): there is an error it is Z^n.** | 4) Those are the same.  5) This follows from theta''' \leq \theta'' - \theta'  6) It was a typo. I have made the change. The q\_n was not needed.  7) It was again a typo and I have changed it to n. |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)*  No |  |