SEQUENTIAL LABYRINTH FRACTALS

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We would like to thank the reviewer for his/her valuable suggestions. We have answered all the comments and modified the manuscript accordingly. The responses and details of changes made in the manuscript are described below:

Responses to General Comments

Comment 1: Firstly, it would be interesting to find out whether the main results and the approach of the present paper hold in the case of several dimensions. Secondly, bearing in mind the fact that the sequential labyrinth fractals are constructed via an explicit procedure, it would be interesting to calculate their Fourier and Assouad dimensions as well. But apparently, these two comments might be topics for future works.
Response 2: We would like to thank the reviewer for this suggestion. But as he/she mentioned, we plan to keep it as a future work.

Comment 2: Thirdly, I would like to point out that the paper is written a bit sloppily. There are two particular things in this direction that I would like to stress. First, English could be improved at many places. Second, the proofs must be provided with parallel text that clearly explains what is happening in them.
Response 2: We have tried to improve the language of the paper and necessary changes are made throughout the paper. Also, before every theorem, we have included an idea about the theorem and some explanations are given within the proofs whenever needed.

Responses to particular Comments

Comment 1: Page 1. Please, replace the first phrase in the chapter Introduction by "In the literature, there are various methods for construction fractals."
Response 1: The change is made.

Comment 2: Page 2, line 9 from above. Please, read "Those can be considered as generalizations of the Bedford–McMullen carpet."
Response 2: The change is made.

Comment 3: Page 3, the phrase right before Definition 2.1. Please, read "We let I denote the unit square $[0, 1] \times [0, 1]$ throughout this paper."
Response 3: The change is made.

Comment 4: Page 3. Please, write before Definition 2.1 at least one introductory phrase explaining the main idea/main meaning of this definition.
Response 4: We have included an introductory paragraph before Definition 2.1.

Comment 5: Page 3. Please write before Definition 2.2 at least one introductory phrase explaining the main idea/main meaning of this definition.
Response 5: We have added a sentence before Definition 2.2, which states the idea of the definition.

Comment 6: Page 3. Please write before Theorem 2.1 at least one introductory phrase explaining the main idea/main meaning of this theorem.
Response 6: We have added an introductory sentence for Theorem 2.1. It is in page 4 now.

Comment 7: Page 4, the first line from above. Please add the phrase "We have" after the word Proof.
Response 7: The comment is implemented. Along with it we have mentioned the metric, which we are using. It is on line 5 of page 4 of the revised manuscript.

Comment 8: Page 4, the fourth line from below. Please, give a formal definition of the remainder function Rem.
Response 8: The definition of remainder function Rem is given and it is available on lines 3 and 4 of page 5 in the revised manuscript. Besides that, the definition of greatest integer function is also provided.

Comment 9: Page 4. Please write before Proposition 2.1 at least one introductory phrase explaining the main idea/main meaning of this proposition.
Response 9: The comment is implemented and it is on page 5 of the revised manuscript.

Comment 10: Page 4, the last line. Please, read "The proof of Proposition 2.1 is easy. It is given in Appendix 5."
Response 10: We have provided the proof of Proposition 2.1 along with the Proposition and the appendix is removed.

Comment 11: Page 5. Please write before Definition 2.3 at least one introductory phrase explaining the main idea/main meaning of this definition.
Response 11: The comment is implemented and it is on page 6 of the revised manuscript.

Comment 12: Page 5. Please write before Theorem 2.2 at least one introductory phrase explaining the main idea/main meaning of this theorem.
Response 12: The comment is implemented and it is on page 6 of the revised manuscript.

Comment 13: Page 8. Please write before Theorem 2.4 at least one introductory phrase explaining the main idea/main meaning of this theorem.
Response 13: The comment is implemented and it is on page 9 of the revised manuscript.

Comment 14: Page 12. Please write before Theorem 4.2 at least one introductory phrase explaining the main idea/main meaning of this theorem.
Response 14: We have included an introductory sentence for Theorem 4.2, and it is on page 15 of the revised manuscript.

Comment 15: Page 13. Please write before Theorem 4.3 at least one introductory phrase explaining the main idea/main meaning of this theorem.
Response 15: Theorem 4.3 is not present in the revised manuscript as it's results are already included in Theorem 4.1 and 4.2. All the changes made here are mentioned below.

Note to the reviewer

We have made some changes in section 4 of the manuscript as we noticed some computational errors. The bounds of the Hausdorff dimension have been changed, and the new bounds are provided in Theorem 4.2. Also, earlier, Theorem 4.1 was only regarding the upper bound of the box-counting dimension. We have modified the proof in a way that gives the exact value of the box-counting dimension. As a result, we have removed Theorem 4.3 since it was giving a consolidated value of both Hausdorff and box-counting dimension, and it is no longer required now since Theorems 4.1 and 4.2 are modified.