[Re] Mathematical and Computational Foundations of Recurrence Quantifications

Miguel P Xochicale[1]

1 School of Engineering, University of Birmingham, UK

map479@bham.ac.uk

Competing Interests:
The authors have declared that no competing interests exist.

> **A reference implementation of**
>
> → *Mathematical and Computational Foundations of Recurrence Quantifications*, Marwan Norbert and Webber Charles L, Recurrence Quantification Analysis: Theory and Best Practices, 2015.

Introduction

- The introduction should introduce the original paper and put it in context (e.g. is it an important paper in the domain ?).

The work of Marwan and Webber [2] on Recurrence Quantification is a good start to understand how recurrence plots work. However, while replicating Figure 1.1 1 and Figure 1.2 2 in chapter one of Marwan and Webber [2].

- You must also specify if there was an implementation available somewhere and provide a link to it if relevant (and in such a case, you have to specify if the proposed replication is based on this original implementation).

- You should also introduce your implementation by listing language, tools, libraries, etc. and motivate choices if relevant.

Methods

The methods section should explain how you replicated the original results:

- did you use paper description
- did you contact authors ?
- did you use original sources ?
- did you modify some parts ?
- etc.

If relevevant in your domain, you should also provide a new standardized description of the work.

Results

Results should be compared with original results and you have to explain why you think they are the same or why they may differ (qualitative result vs quantitative result). Note that it is not necessary to redo all the original analysis of the results.
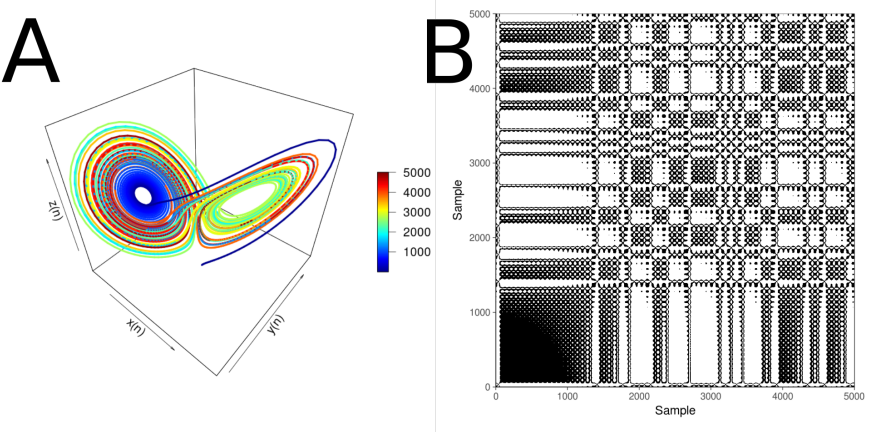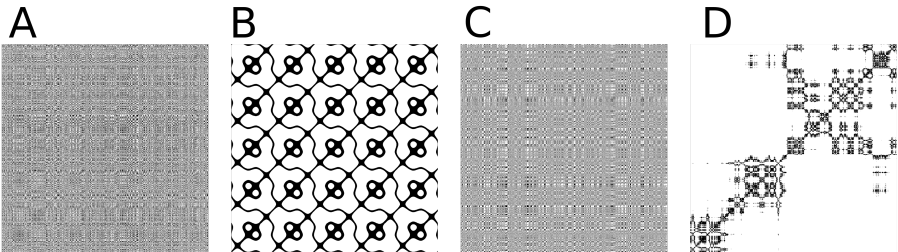
Figure 1: Figure 1,1

Figure 2: Figure 1,2

Conclusion

Conclusion, at the very minimum, should indicate very clearly if you were able to replicate original results. If it was not possible but you found the reason why (error in the original results), you should exlain it.

Table 1: Table caption

Heading 1			Heading 2		
cell1 row1	cell2 row 1	cell3 row 1	cell4 row 1	cell5 row 1	cell6 row 1
cell1 row2	cell2 row 2	cell3 row 2	cell4 row 2	cell5 row 2	cell6 row 2
cell1 row3	cell2 row 3	cell3 row 3	cell4 row 3	cell5 row 3	cell6 row 3

A reference to table 1. A reference to equation 1. A reference to citation Gruber and Swartz [1].

$$A = \sqrt{\frac{B}{C}} \tag{1}$$

References

[1] John Gruber and Aaron Swartz. *The Markdown format*. 2004. URL: http://daringfireball.net/projects/markdown/syntax.

[2] Norbert Marwan and Charles L. Webber. "Mathematical and Computational Foundations of Recurrence Quantifications". In: *Recurrence Quantification Analysis: Theory and Best Practices*. Ed. by Charles L. Webber and Norbert Marwan. 1st ed. Springer, Cham, 2015. Chap. 1, pp. 3–43. ISBN: 978-3-319-07154-1.