

[Re] Connectivity reflects coding: a model of voltage-based STDP with homeostasis

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Competing Interests:

The authors have declared that no competing interests exist.

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A reference implementation of

→ Connectivity reflects coding: a model of voltage-based STDP with homeostasis, C. Clopath, L. Büsing, E. Vasilaki and W. Gerstner, In: Nature Neuroscience 13.3 (2010), pp. 344–352, doi= 10.1038/nn.2479

Introduction

This is a reimplement of Clopath et al. [1] .

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

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 explain 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 figure [1](#). A reference to equation [1](#). A reference to citation Gruber and Swartz [\[2\]](#).

$$A = \sqrt{\frac{B}{C}} \quad (1)$$

References

- [1] Claudia Clopath et al. “Connectivity reflects coding: a model of voltage-based STDP with homeostasis”. In: *Nature Neuroscience* 13.3 (2010), pp. 344–352. ISSN: 1097-6256. DOI: [10.1038/nn.2479](https://doi.org/10.1038/nn.2479). URL: <http://www.nature.com/doifinder/10.1038/nn.2479>.
- [2] John Gruber and Aaron Swartz. *The Markdown format*. 2004. URL: <http://daringfireball.net/projects/markdown/syntax>.