

Errata for the arXiv 2024 paper “Multi-Neuron Representations of Hierarchical Concepts in Spiking Neural Networks” by Nancy Lynch

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1. p. 11:

At the end of the introduction to Section 6, we have a statement about the order of choices of included edges, presented set B , and failing neurons. This appears to be unduly restrictive.

Instead, we can assume that the included edges are chosen first, non-deterministically, potentially by an adversary, but subject to constraints on connectivity described in Section 6.2. Then the failing neurons are chosen randomly. With high probability the failing neurons are well distributed with respect to the sets of *reps* and the included edges, as claimed in the “survival lemmas” 6.2 and 6.4 in Section 6.4. The resulting combination of included edges and failed neurons work, with high probability, for any presented set B .

This order corresponds to what is actually used in the technical parts of the paper.

To correct the arXiv paper, we can just omit the three-line paragraph beginning with “To summarize our assumptions...”