A survey of recent developments of the HTM algorithm

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Recent developments

- Niu et. al. proposed a graded activation in HTM neurons [1]. They apply a sigmoid that takes into account the synaptic permanence in addition to the input activation. I don't really understand how this works yet.
- Suzugamine et. al. tested an adaptive number of cortical columns [2].

References

[1] Dejiao Niu, Le Yang, Tao Cai, Lei Li, Xudong Wu, and Zhidong Wang. A new hierarchical temporal memory algorithm based on activation intensity. *Computational intelligence and neuroscience*, 2022:6072316–6072316, 01 2022.

[2] Sotetsu Suzugamine, Takeru Aoki, Keiki Takadama, and Hiroyuki Sato. Self-structured cortical learning algorithm by dynamically adjusting columns and cells. *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 24:185–198, 03 2020.