A Tale of Five Decoders.

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Introduction

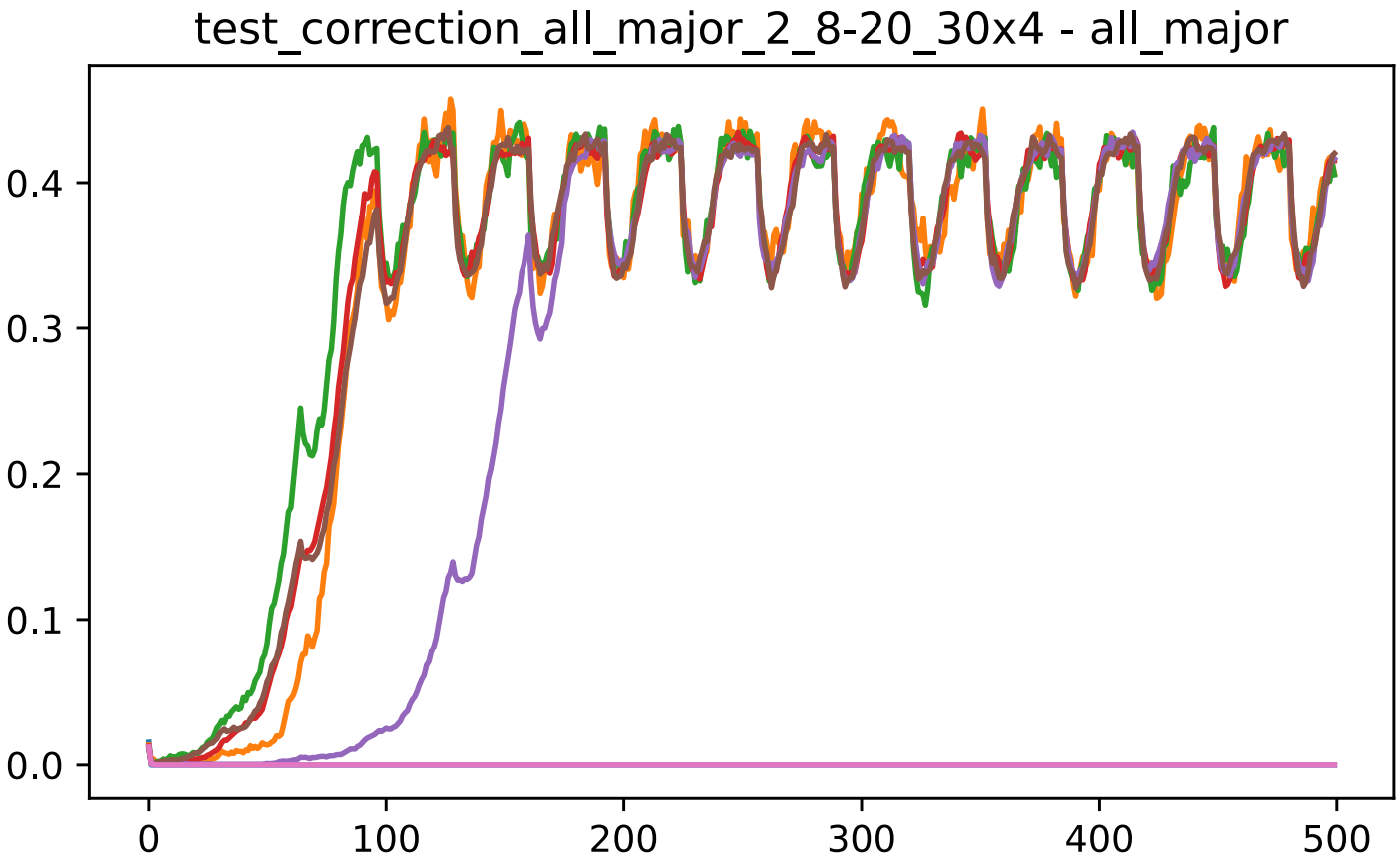
Today:

- Noisy Circuits.
- Definitions and Motivation.
- Pippenger Construction. (Classical, Fault Tolerance with constant overhead at depth).
- 'Franch-line' works, modern fault tolerance methods and gadgets. ('log n' overhead at depth).
- An almost $\mathbf{QNC}_1 =$ noisy-$\mathbf{QNC}_1$.
- Next week, directions and hints that might show separation. ($\neq$).

TAKEAWAYS:

- More about codes.
- First view to fault tolerance.
- Nice open problems.

Nosiy Circuit.



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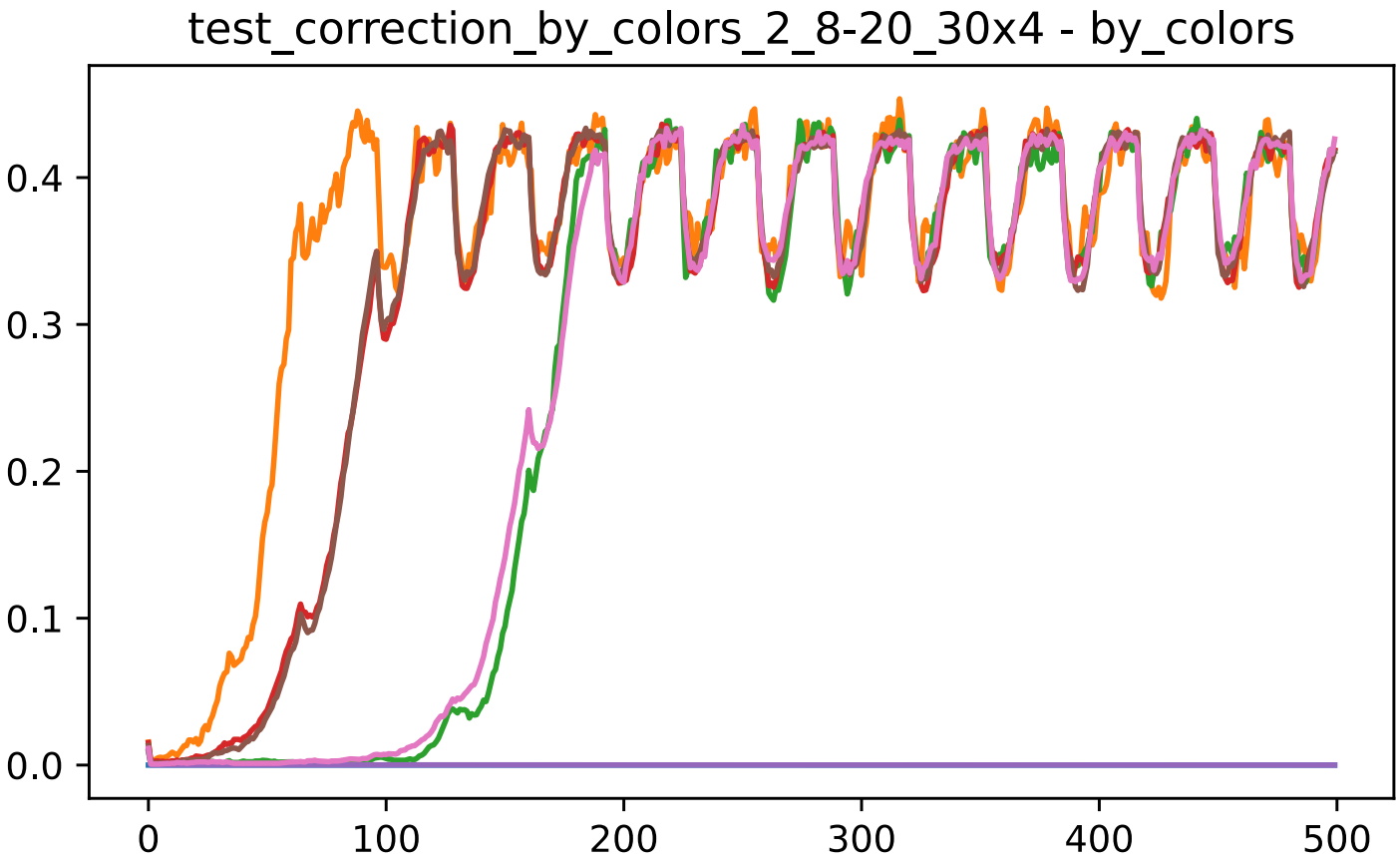
grid dim :[3, 3, 3, 3, 3, 3, 3]
error rates :[0.001]
error accumulation :False

Nosiy Circuit.



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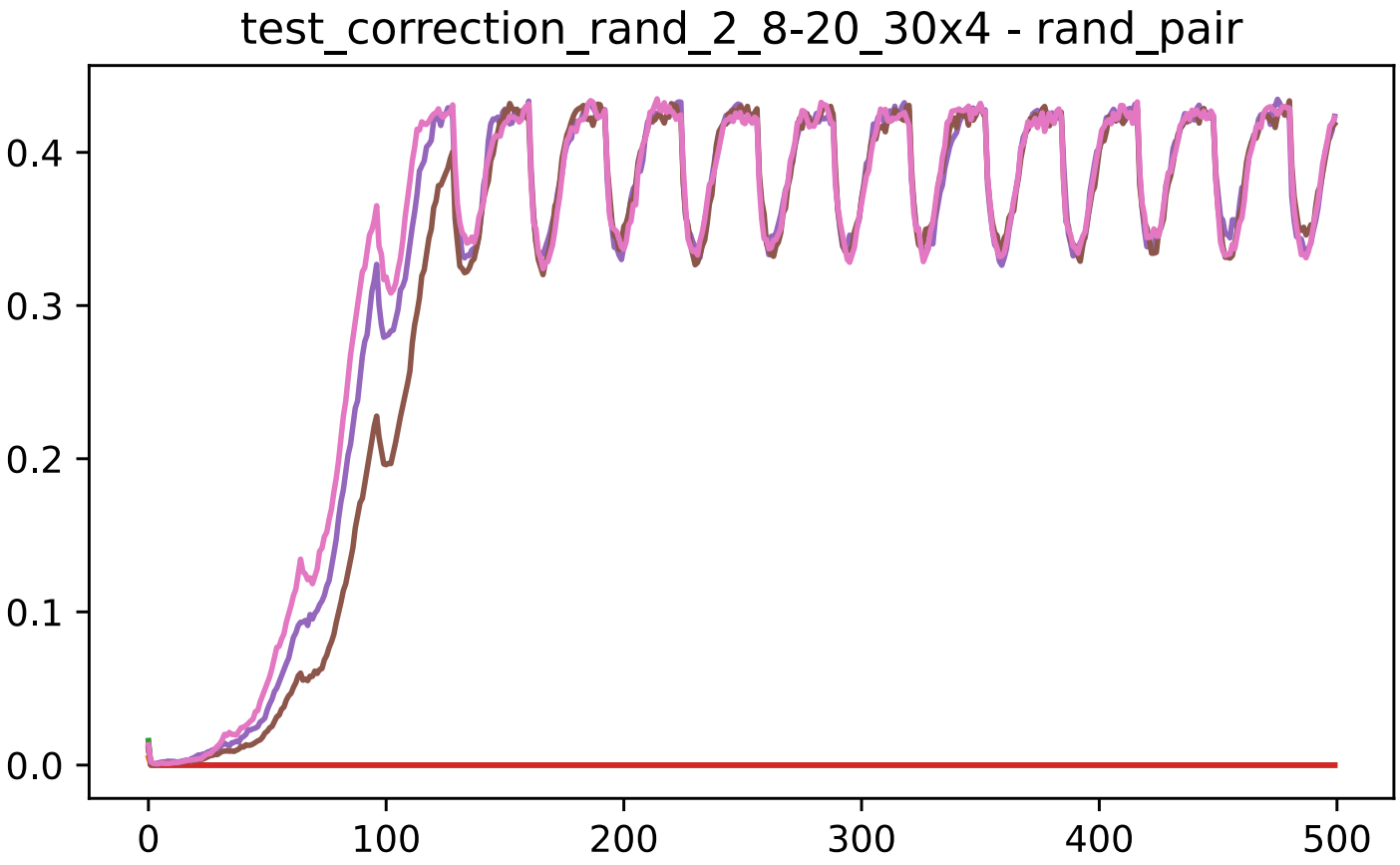

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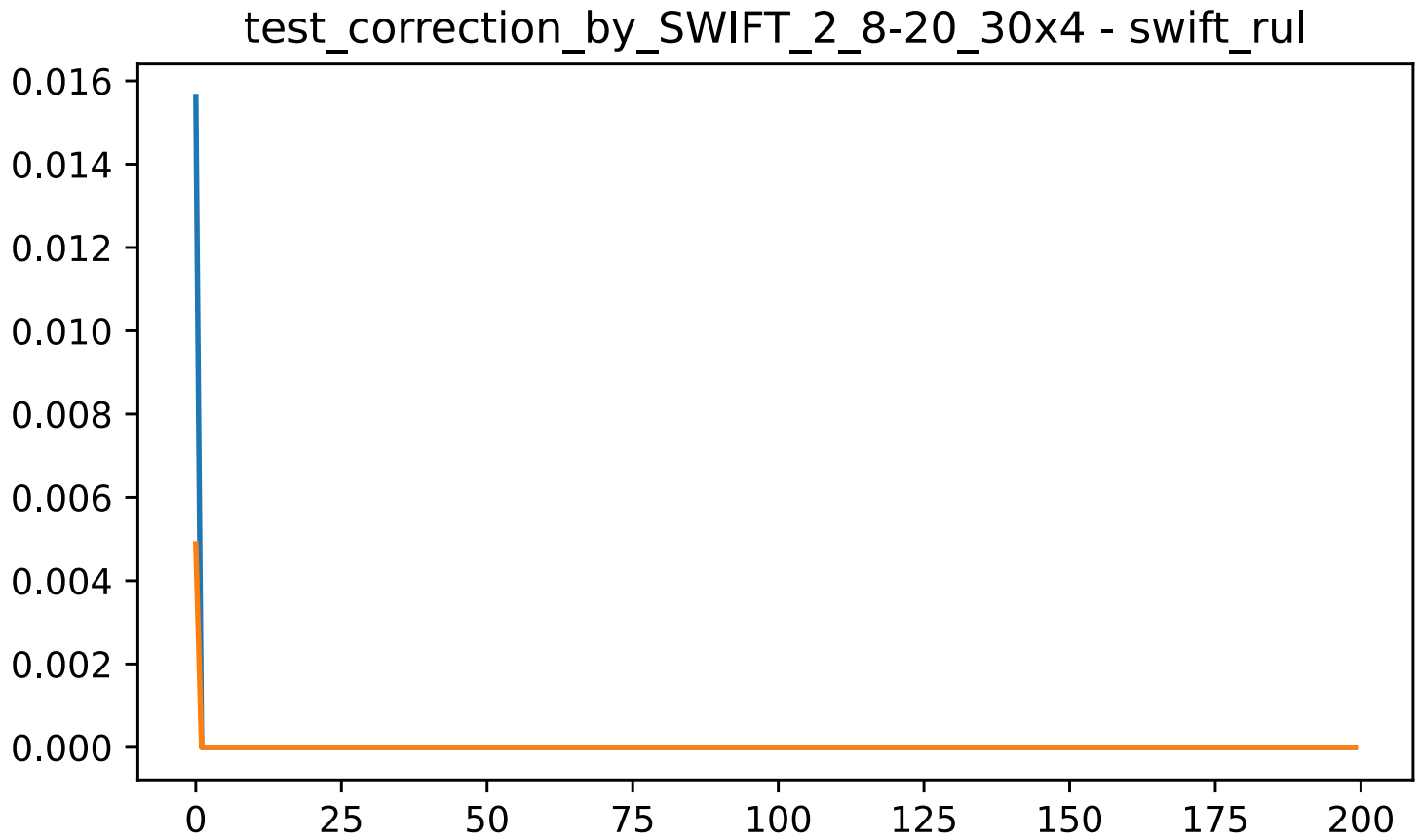

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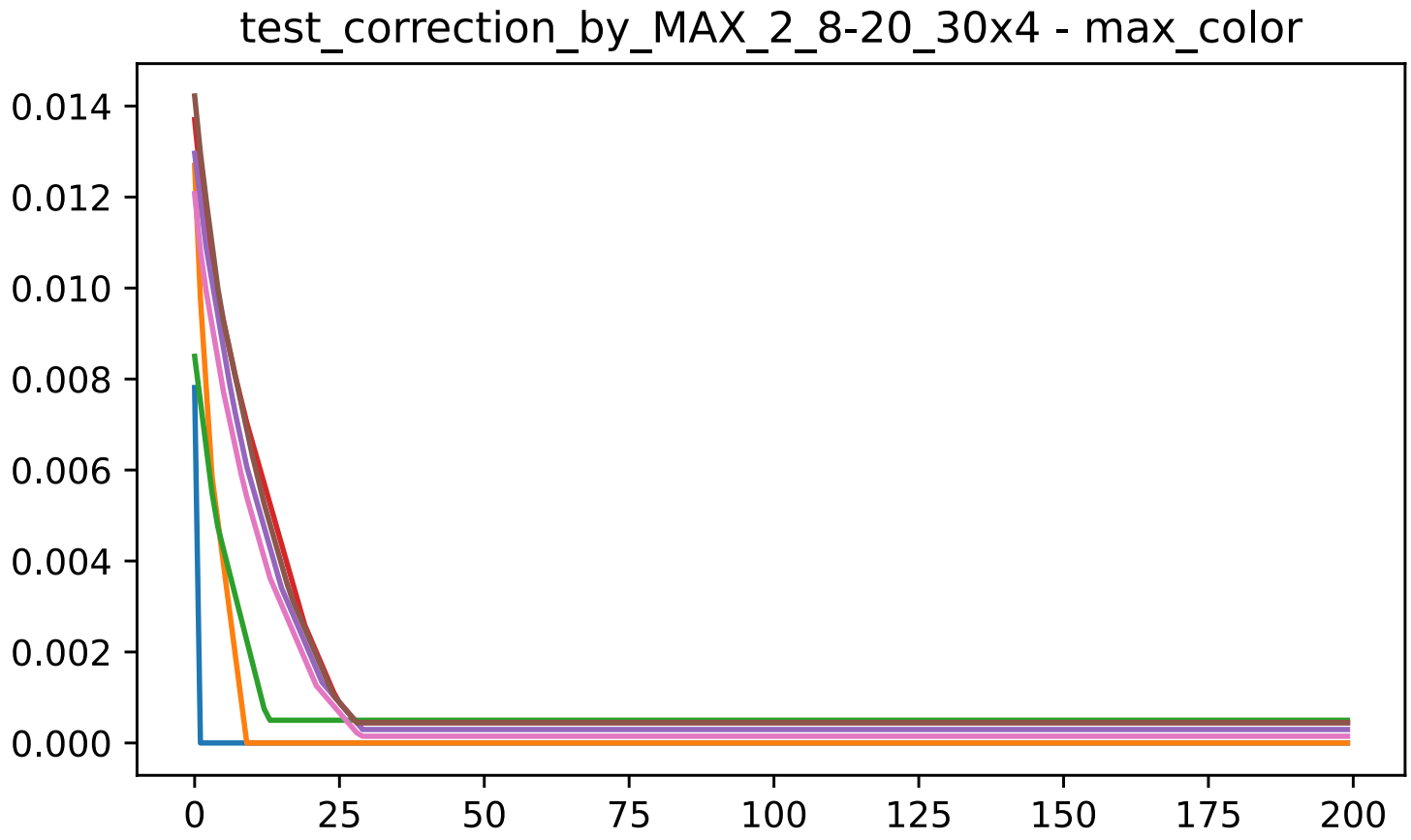

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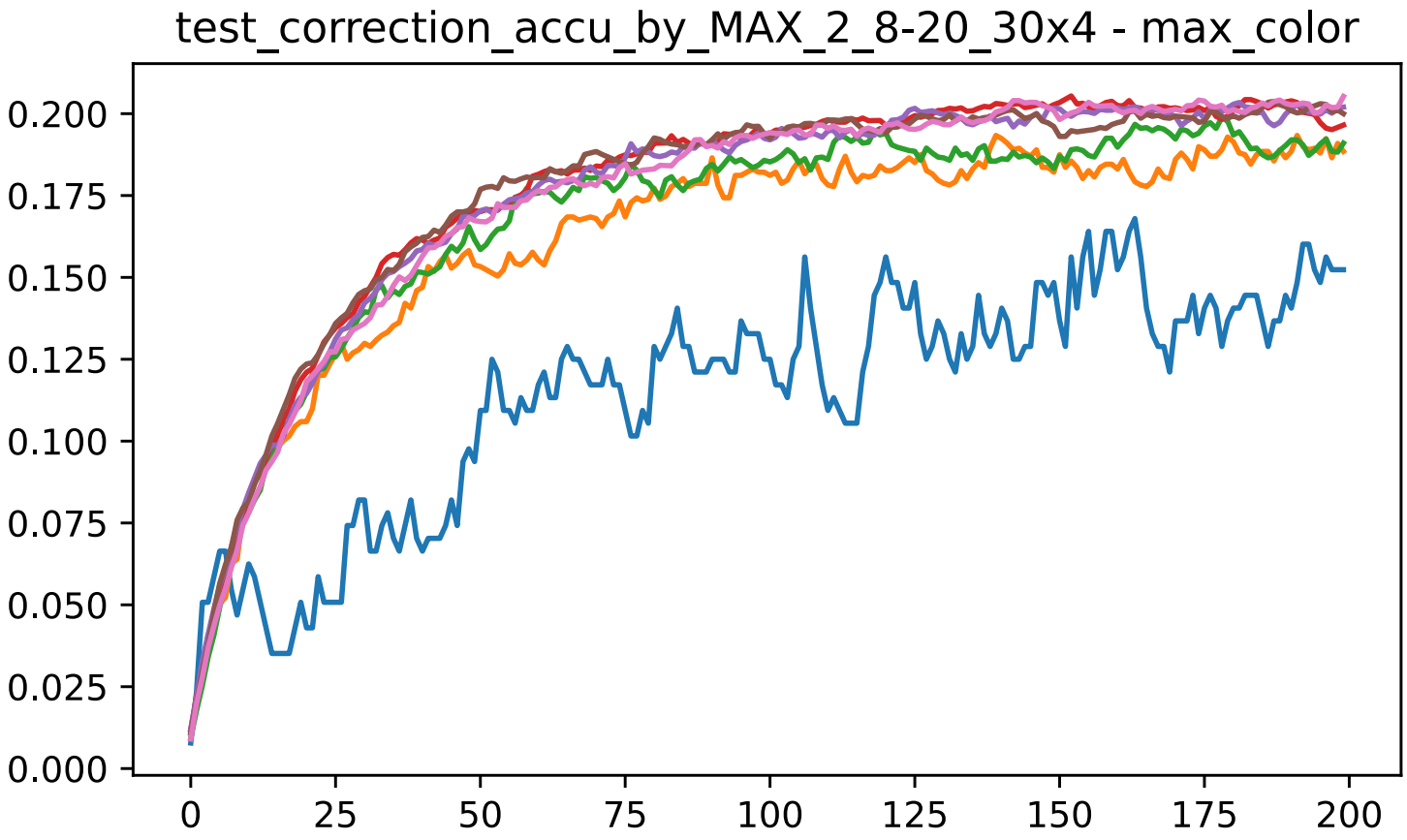

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