



# Savantic

## Emergence in the Real World

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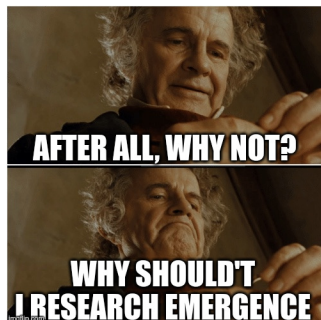
Savantic AB

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# Introduction

- Accidental Swede
- The OKC and Axions
- The ALPHA experiment
- Leaving academia...Consulting at Savantic
- That one talk on my last day...

# Emergent Spacetime



Ask, and if you are persistent or lucky you shall receive

# Emergent Spacetime...why?

- Intuition: fundamental notions shouldn't have built in UV cutoffs
- Should be notionally precise
- Arguably not the case for spacetime coordinates

# Emergent Spacetime Types

- Quantum Mutual Information is like a metric
- The Amplituhedron
- Wolfram's state machines

# Experimental tests



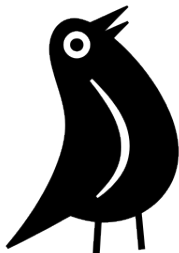
- Quantum Mutual information is controllable
- Distances are measurable
- ???
- Profit

# Experimental Tests



- Both quantum and classical versions (probably) possible
- Modulate correlation at known frequency
- Monitor distance via independent measurement
- One paper out, another in preparation

# Conclusion



- Research outside academia is possible!
- More freedom, but less time
- Ask me about axion dark matter ideas and machine learning