

Indefinite scalability for open-ended evolution

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Thoughts on the OEE research program

- In the end OEE *components* must increase in STV
- OEE components should be observables rather than priors
- OEE priors model physics or chemistry rather than biology
- Evolutionary models can be 'single level', OEE models can't
- OEE models should be **indefinitely scalable**
- **This matters in the beginning**

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OEE research challenge:

Develop a statistical method that, for a given discrete window of space-time-granularity,

- Identifies potential evolutionary components via *near perfect* spatial autocorrelation, then
- Infers 'life lines' by connecting spatiotemporally adjoining potential components
- Eliminates time by projecting the life lines onto a phase space defined by component size, then
- Assesses life line evolution by measuring distance travelled, compared to a random walk, in that space