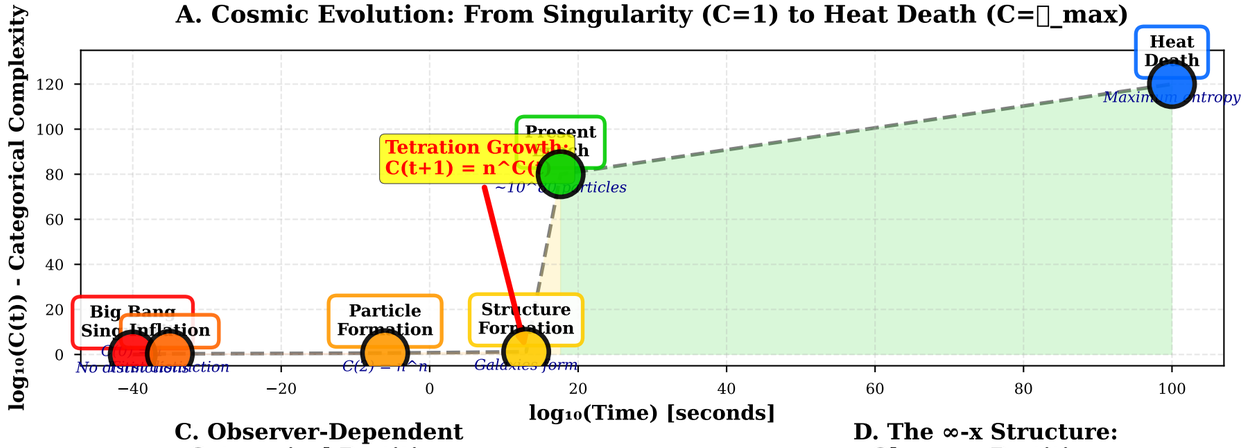
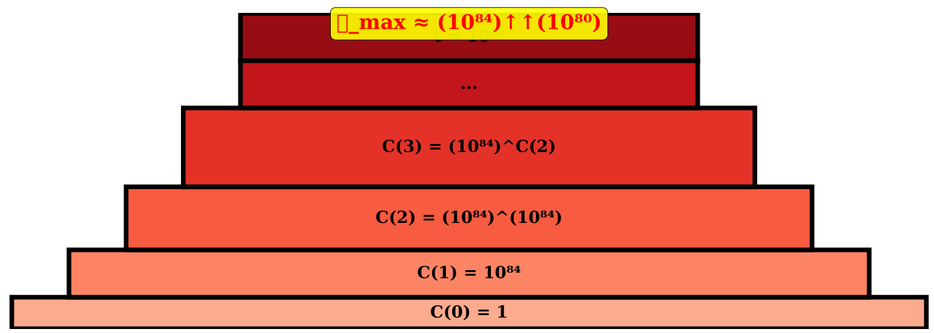
The Observation Boundary: Unified Framework from Categorical Enumeration
From Singularity (C=1) to Heat Death (□_max ≈ (10⁸⁴)↑↑(10⁸⁰))

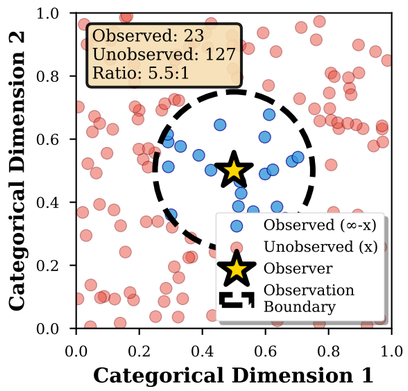
A. Cosmic Evolution: From Singularity (C=1) to Heat Death (C=□_max)



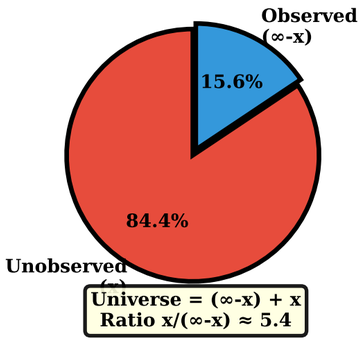
B. Tetration Tower: C(t+1) = n^C(t)



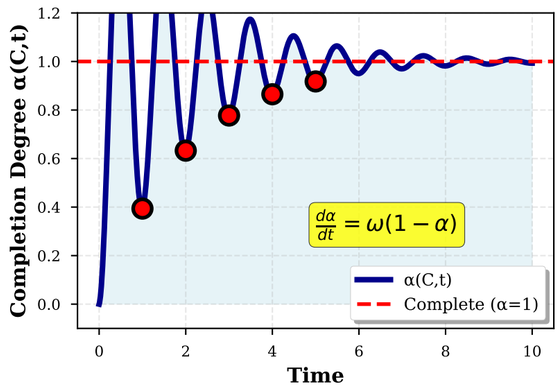
C. Observer-Dependent Categorical Partition



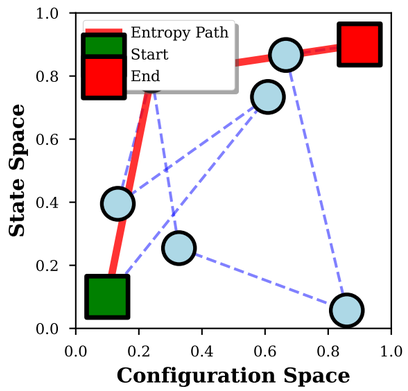
D. The ∞-x Structure: Observer Partition



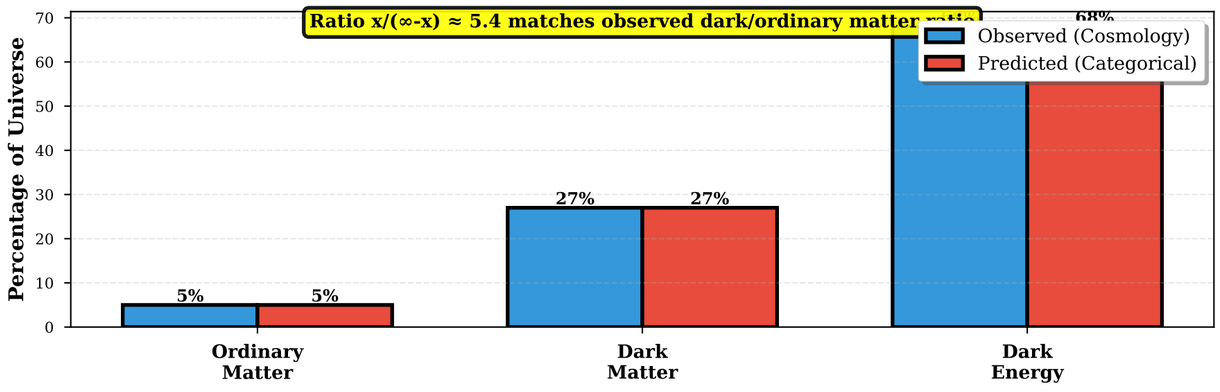
E. Oscillatory Foundation: Category Completion



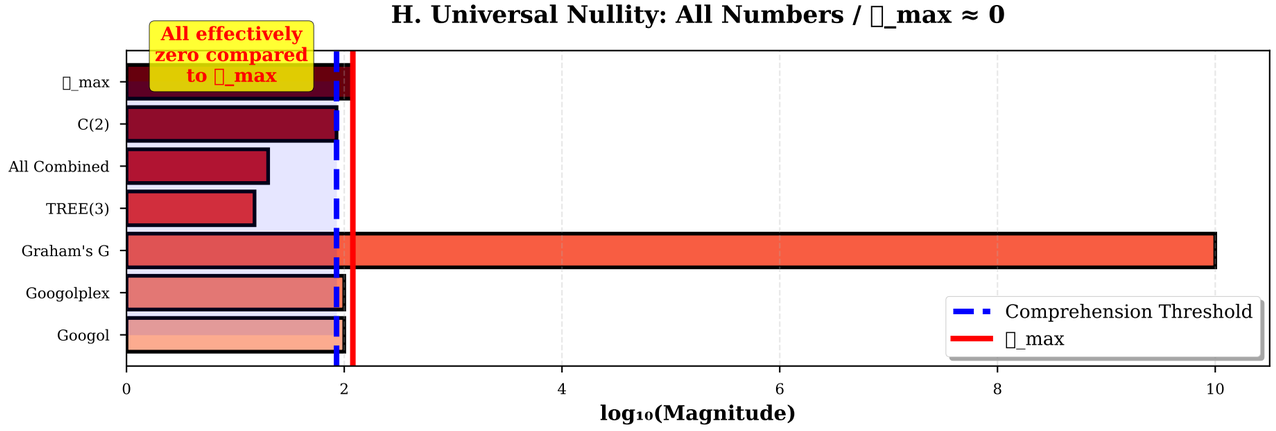
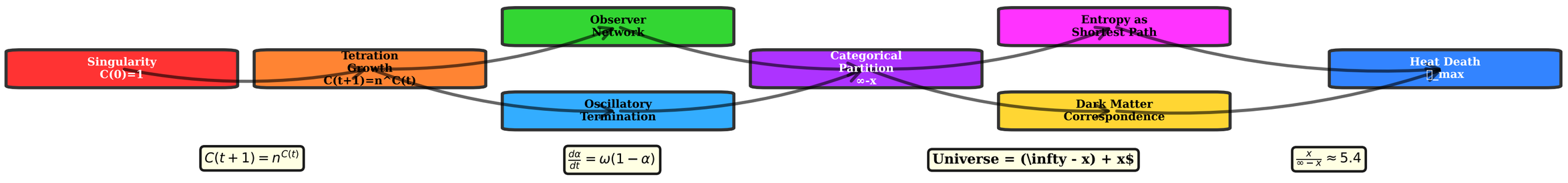
F. Entropy as Shortest Path: Termination Selection



G. Dark Matter Correspondence: Categorical Prediction vs Observation



H. Universal Nullity: All Numbers / □_max ≈ 0



I. Complete Framework: From Singularity to Observation Boundary