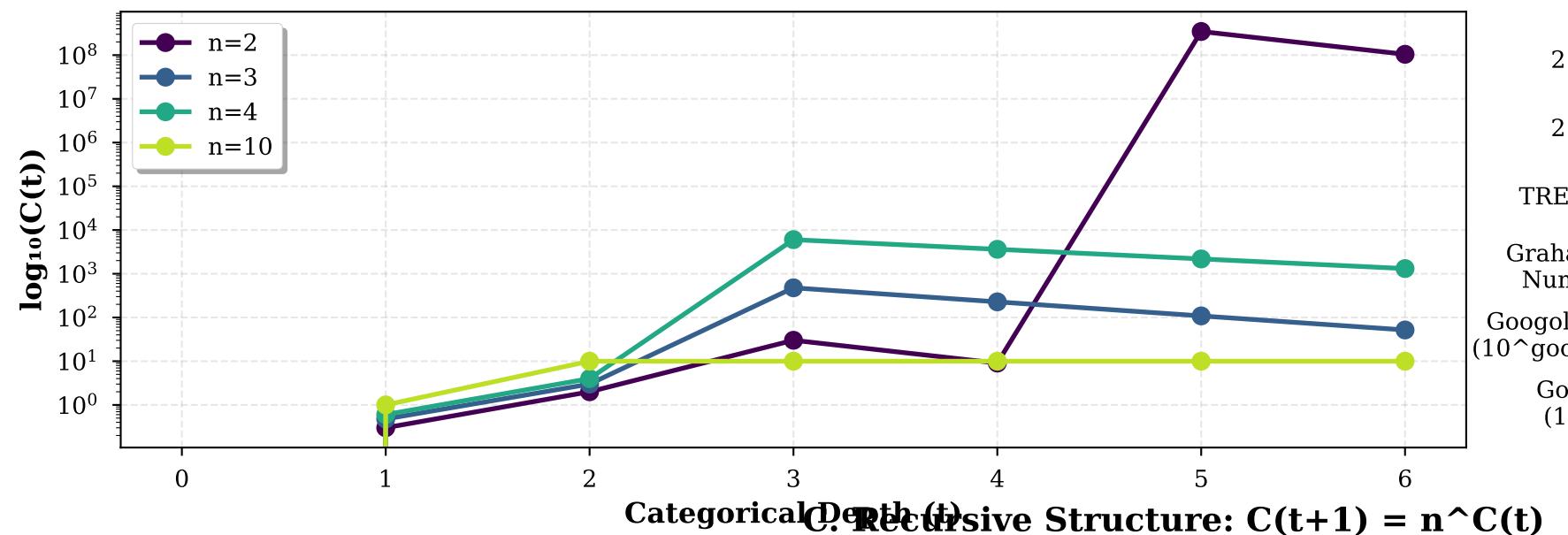
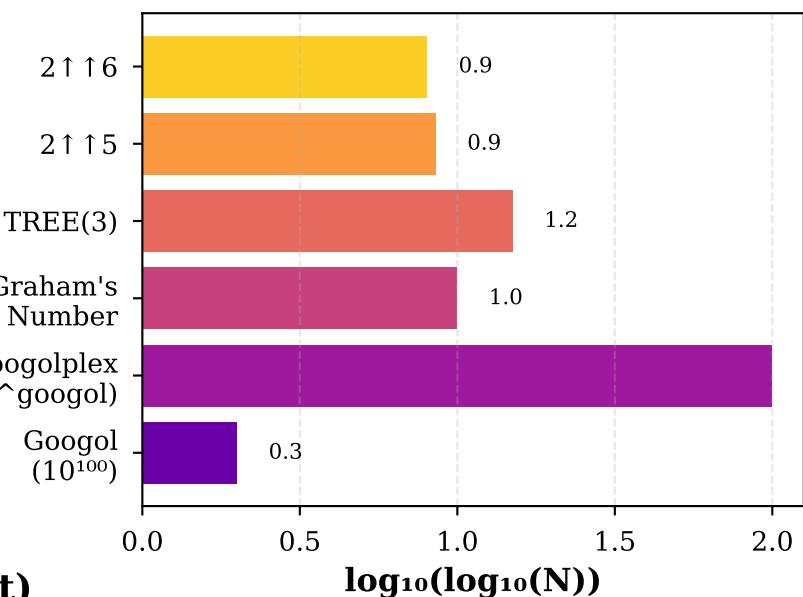


# Categorical Dynamics: Tetration Growth and Physical Predictions

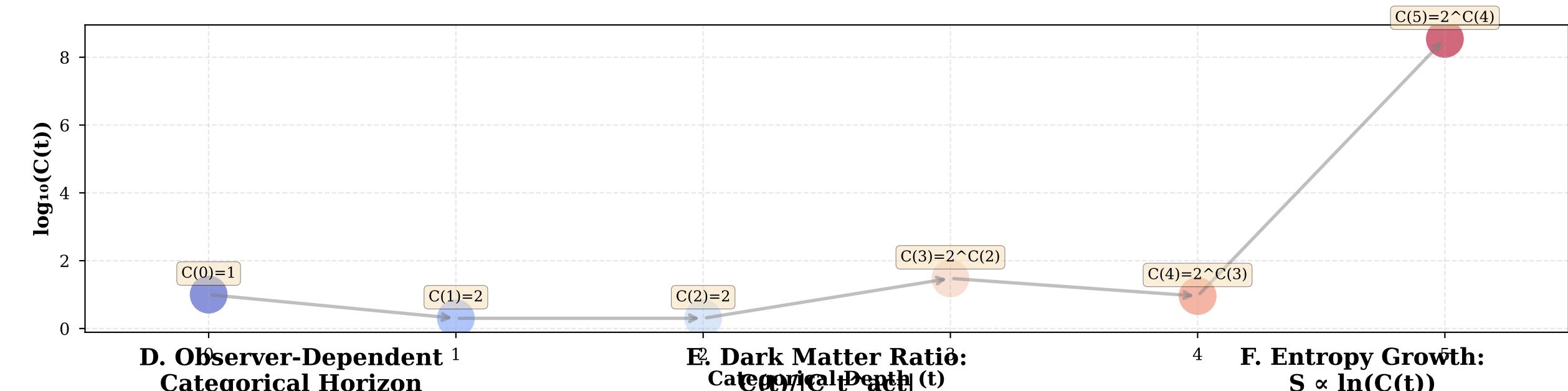
**A. Tetration Growth:  $C(t) = n \uparrow \uparrow t$**



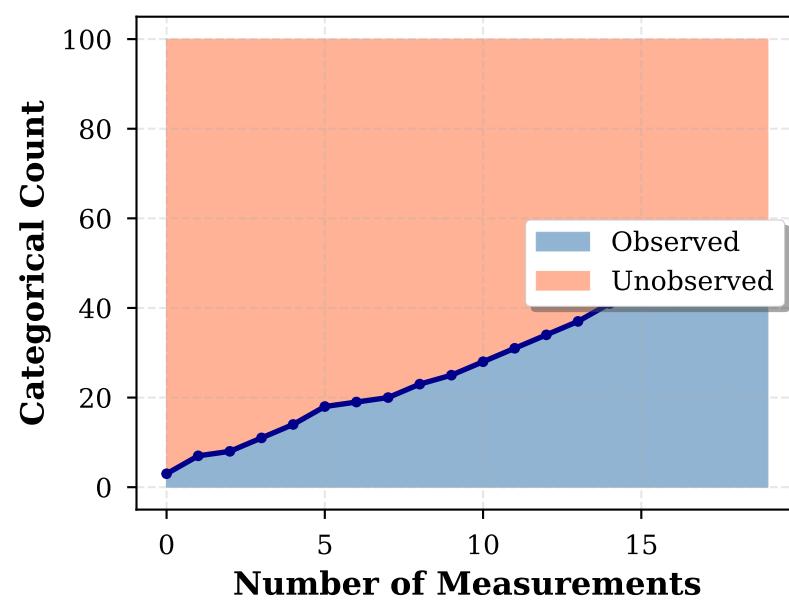
**B. Comparison with Known Large Numbers**



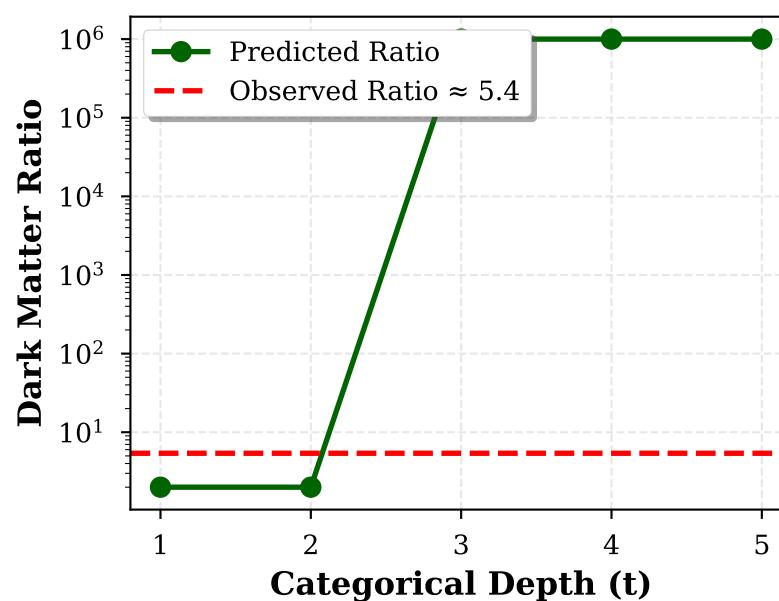
**C. Recursive Structure:  $C(t+1) = n^C(t)$**



**D. Observer-Dependent Categorical Horizon**



**E. Dark Matter Ratio:  $C(t)/C_{\text{dark}}$**



**F. Entropy Growth:  $S \propto \ln(C(t))$**

