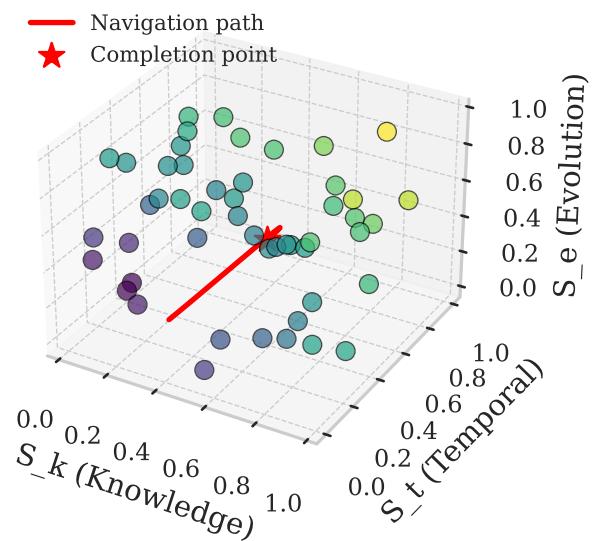
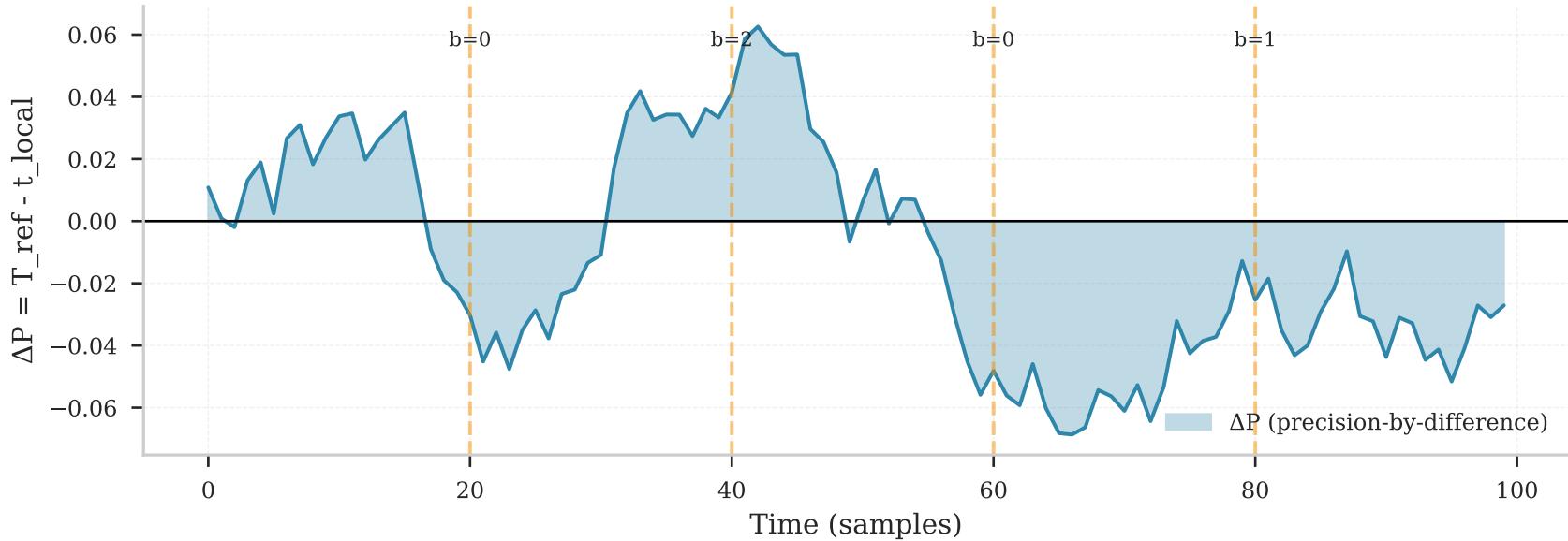


# Categorical Memory (S-RAM): Precision-by-Difference Addressing History IS the Address • Navigation, Not Prediction

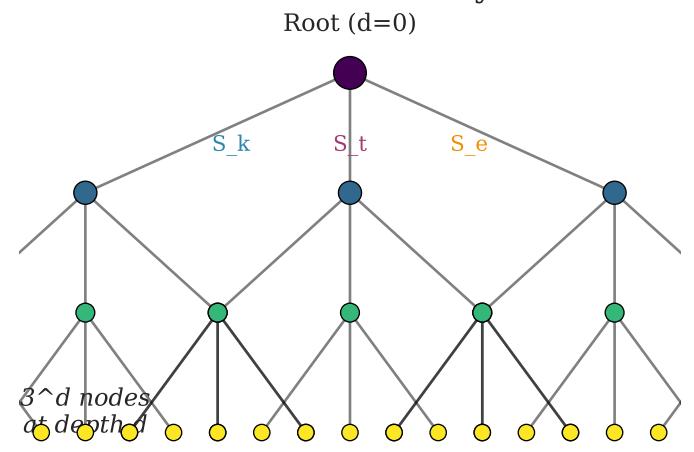
**A. S-Entropy Space**



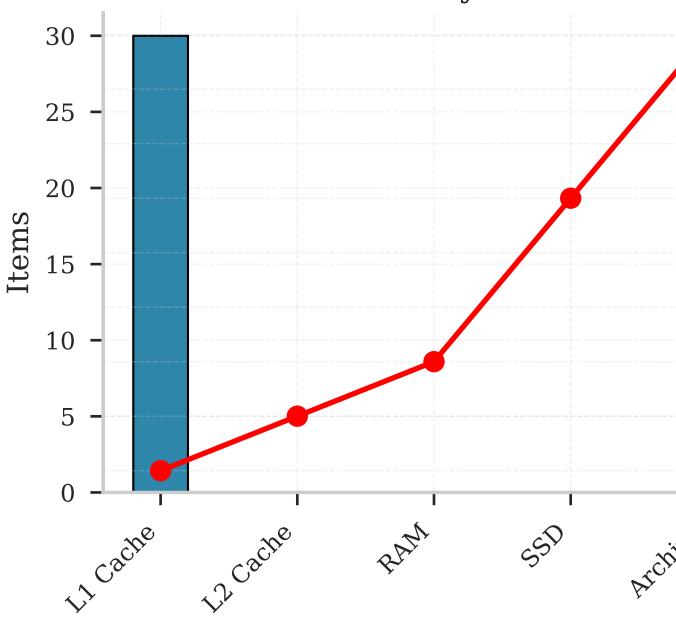
**B. Precision-by-Difference Trajectory**



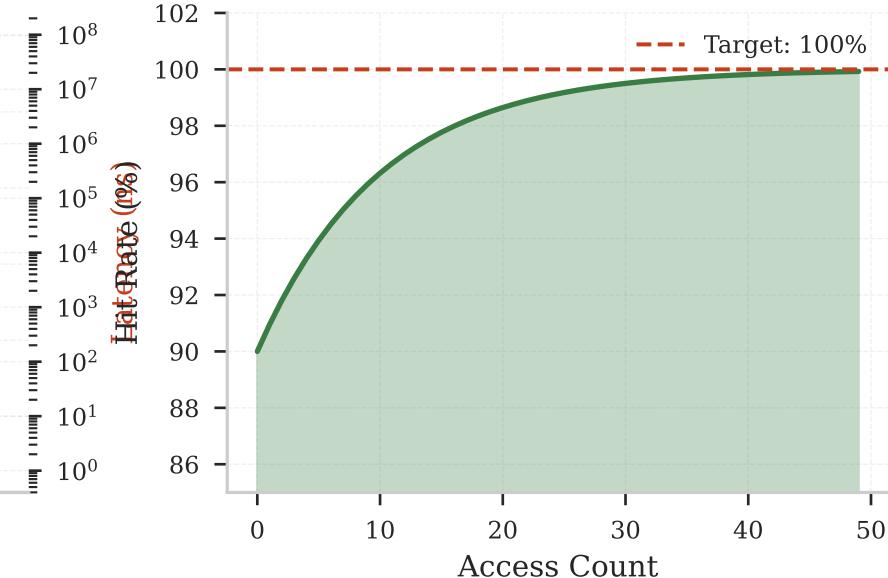
**C.  $3^k$  Hierarchy**



**D. Memory Tiers**



**E. Cache Performance**



**F. Memory Controller as Maxwell Demon**

