

The PaLM Algorithm

Cluster variables into **temporal/spatial-cache-preferred**

- Locality metrics we have:
- Avg_accesses_per_value(X), Avg_reuse_dist(X), spatial_density(X)

Can benefit from temporal cache
if it is high

Can profit from spatial cache
if it is high

May be thrown out of cache
before next reuse
if it is high

The PaLM Algorithm

Choose template / decide specification / map variables

- Choose template:
 - Need to add a spatial cache? Add a temporal cache? Add both?
- Decide specification:
 - what's the total size of each cache? What's the line size of each type?
- Map variables:
 - Starts from the clusters in the previous stage
 - Do a further fine-tune with the knowledge of physical characteristics of memory