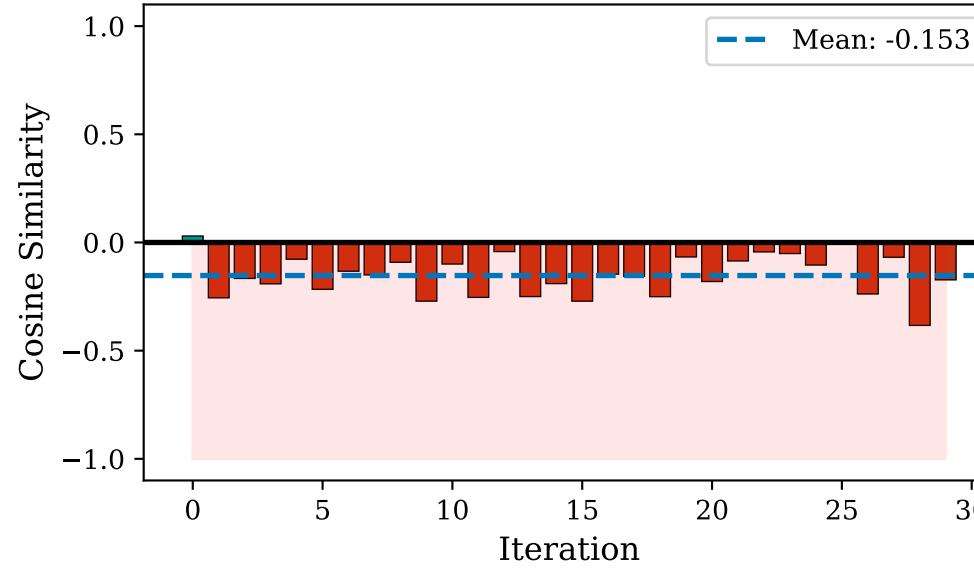
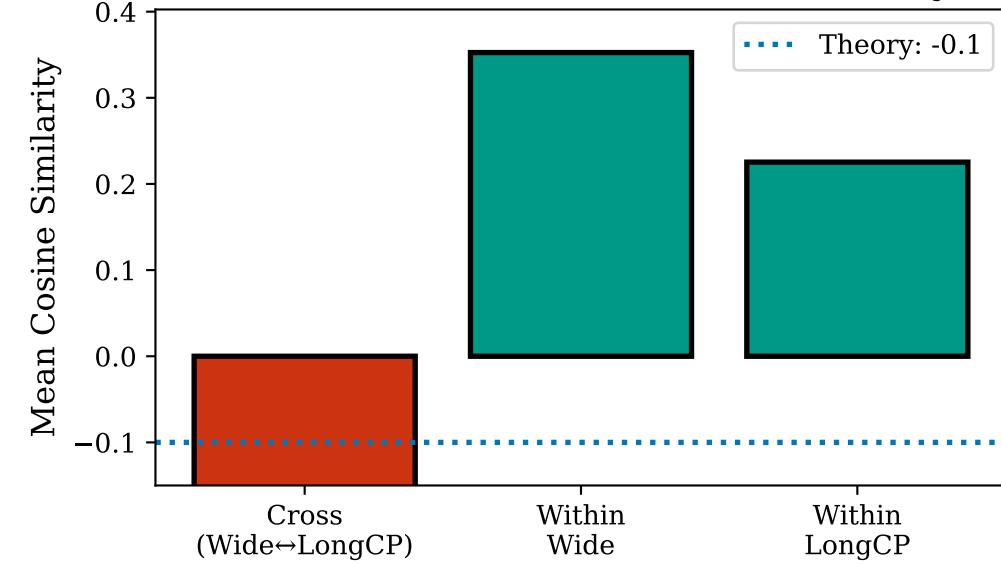


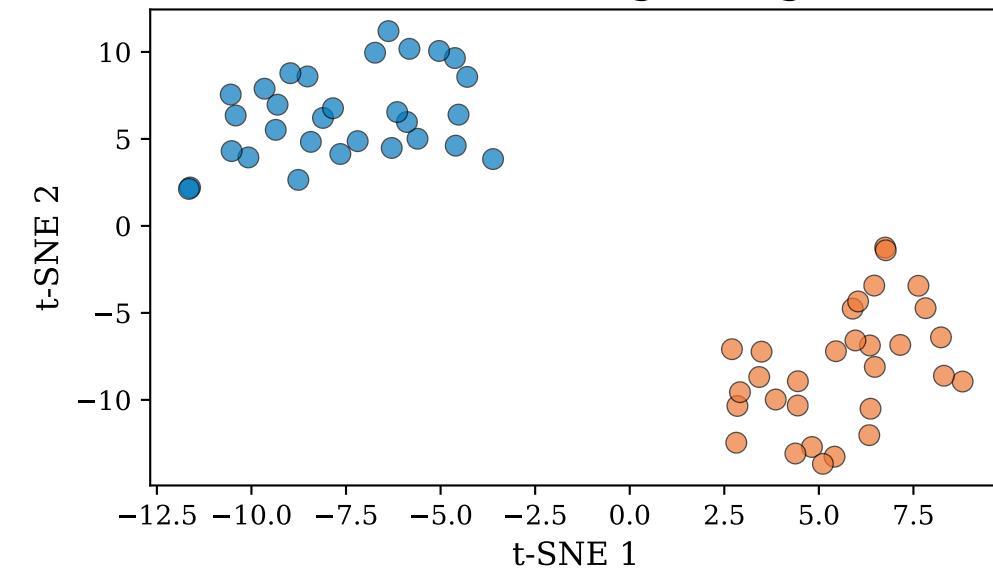
(a) Cross-Domain Gradient Similarity



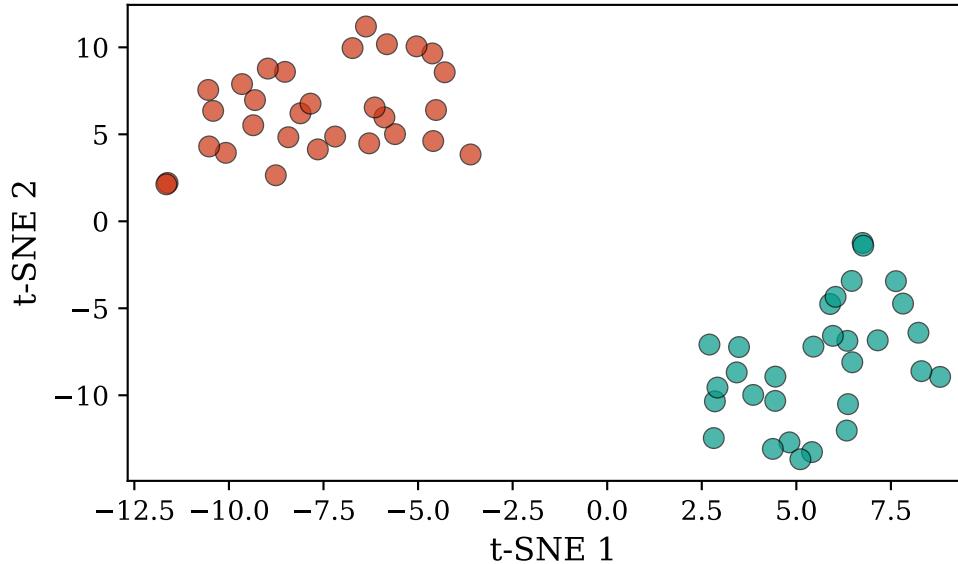
(b) Cross vs Within-Domain Similarity



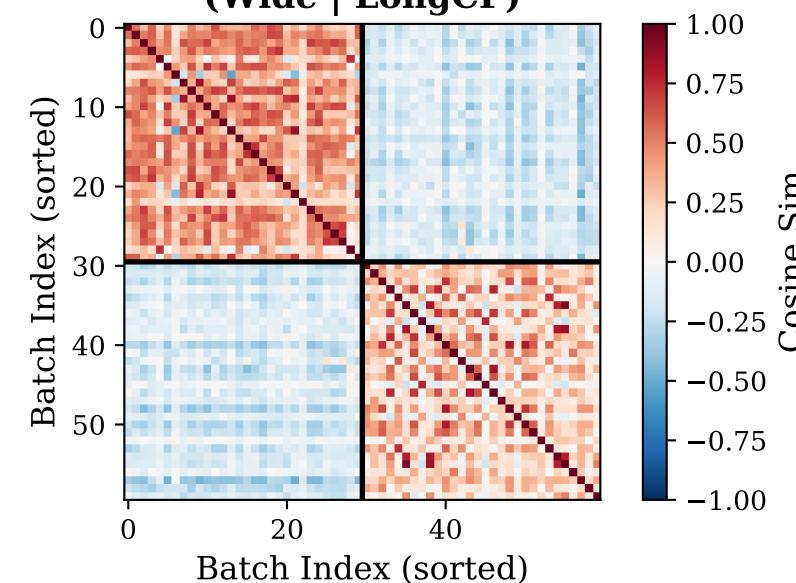
(c) Gradient Space (True Labels)
Blue=Wide, Orange=LongCP



(d) Discovered Clusters (K-Means)
Purity: 100%



(e) Cosine Similarity Matrix
(Wide | LongCP)



EMPIRICAL VALIDATION RESULTS

- Configuration (matching theory):
- Workflows/domain: 3
 - Tasks/workflow: 10
 - Wide p: ~ 0.12
 - LongCP p: ~ 0.82
 - VMs: 4

Gradient Similarity:

- Cross-domain: -0.153 ± 0.093
- Within-Wide: 0.353
- Within-LongCP: 0.225
- Conflict Rate: 97%

Clustering:

- Silhouette: 0.283
- ARI: 1.000
- Purity: 100.0%

Confusion Matrix:

| | True Wide | True LongCP |
|-----------|-----------|-------------|
| Cluster 0 | 30 | 0 |
| Cluster 1 | 0 | 30 |

THEORY vs EMPIRICAL:

Expected conflict >50%: ✓ Got 97%
Expected cross < 0: ✓ Got -0.153