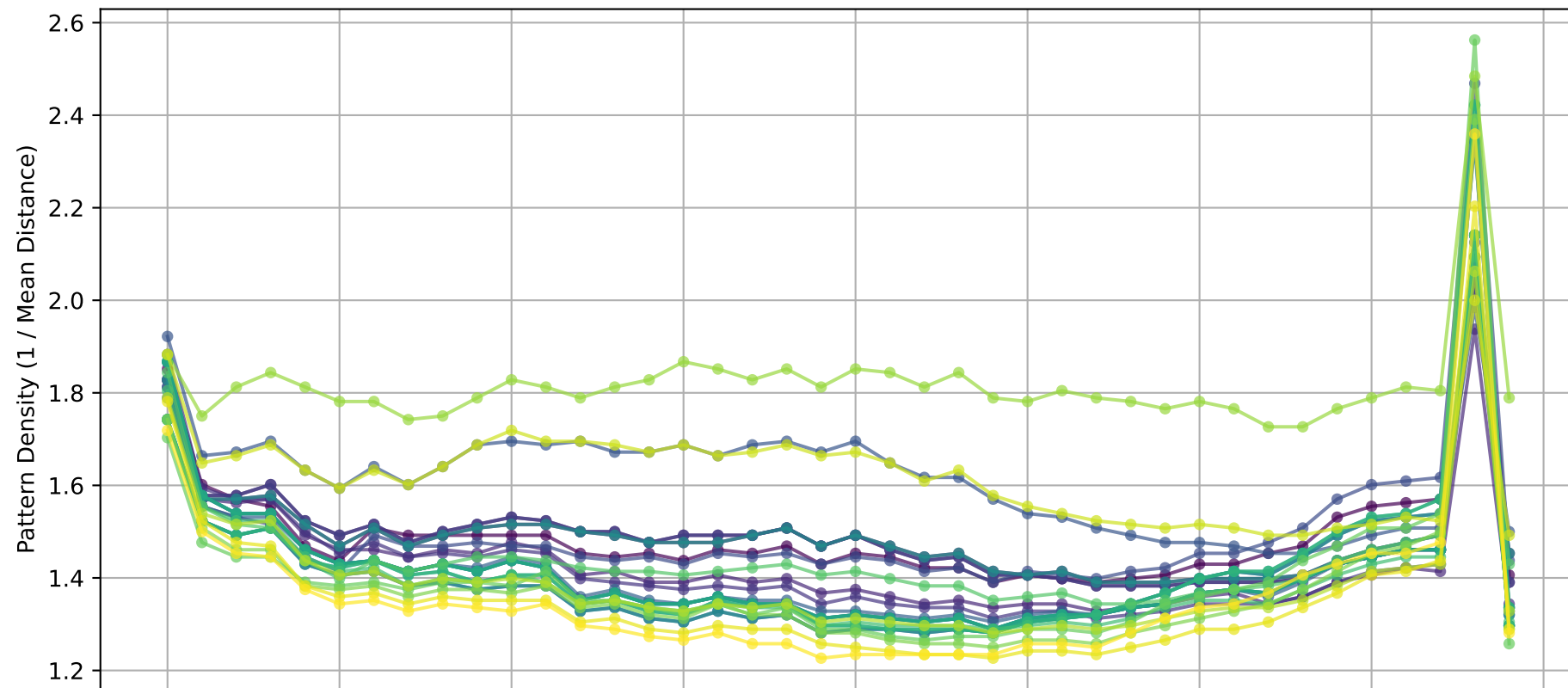
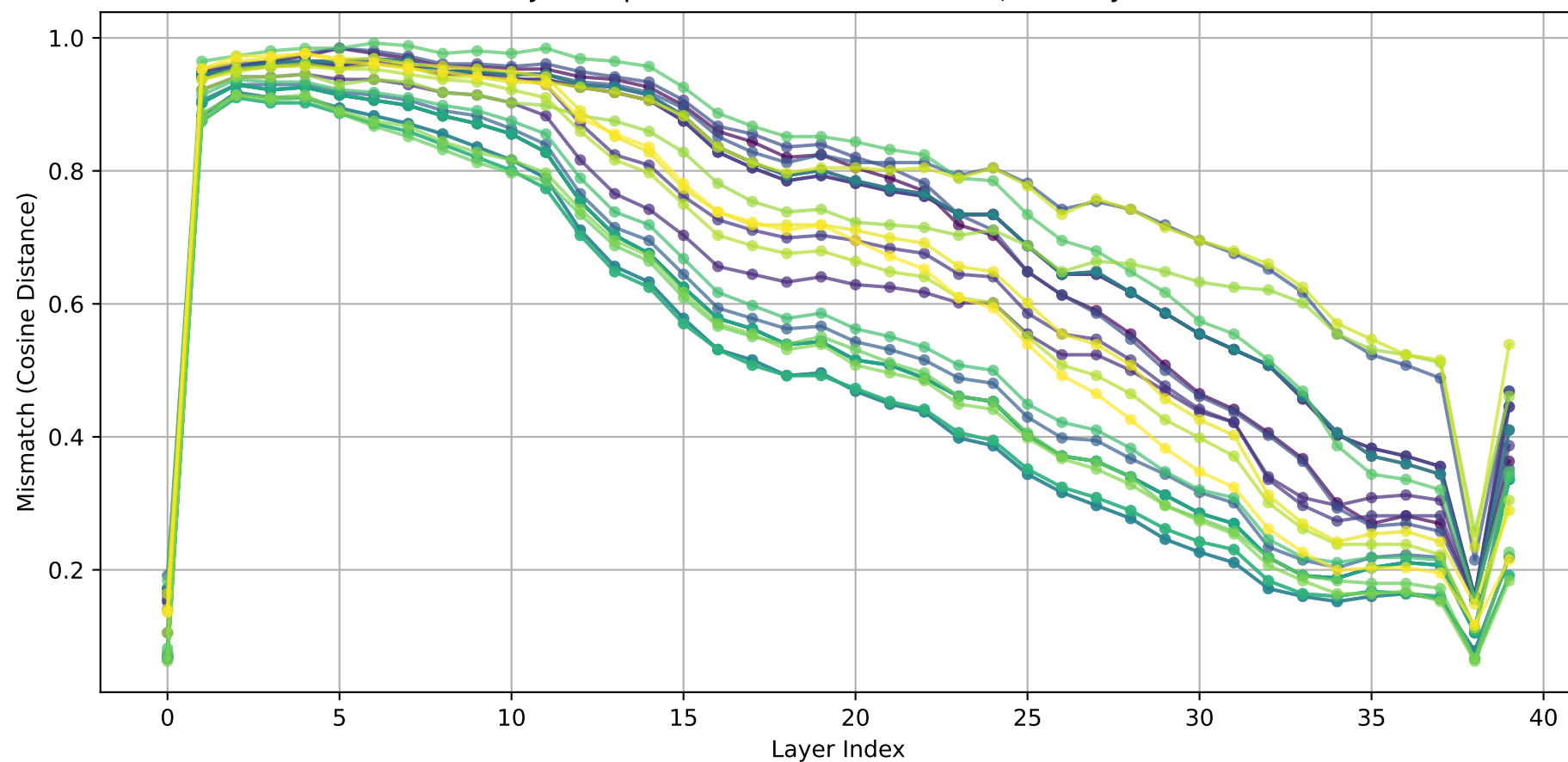


Phi-4 Overlaid Hidden Density and Distance Trajectories

Overlaid Pattern Density (ρ_d) vs. Layer Index



Overlaid Representational Mismatch (d_r) vs. Layer Index



- Task
- Country to Capital (1)
 - Simple Addition (1)
 - Base 10 Arithmetic - Addition (1)
 - Base 10 Arithmetic - Subtraction (1)
 - English to French Translation (2)
 - Base 10 Arithmetic - Multiplication (2)
 - Synonym Matching (2)
 - Unscramble Words (3)
 - Base 10 Arithmetic - Modulo (3)
 - Base 9 Arithmetic - Addition (4)
 - Base 9 Arithmetic - Subtraction (4)
 - Base 8 Arithmetic - Addition (4)
 - Base 8 Arithmetic - Subtraction (4)
 - minus -> plus (5)
 - Base 9 Arithmetic - Multiplication (5)
 - Base 9 Arithmetic - Modulo (5)
 - Base 8 Arithmetic - Multiplication (5)
 - Base 8 Arithmetic - Modulo (5)
 - Pattern Induction (6)
 - Prime Factor Decomposition (6)
 - Symbol Substitution Puzzle (7)
 - Logic Deduction (8)
 - Anagram Logic Puzzle (8)
 - Mini Cryptogram (8)
 - Word Math (9)
 - Advanced Logic Grid (9)
 - Meta-Riddle Sequence (10)