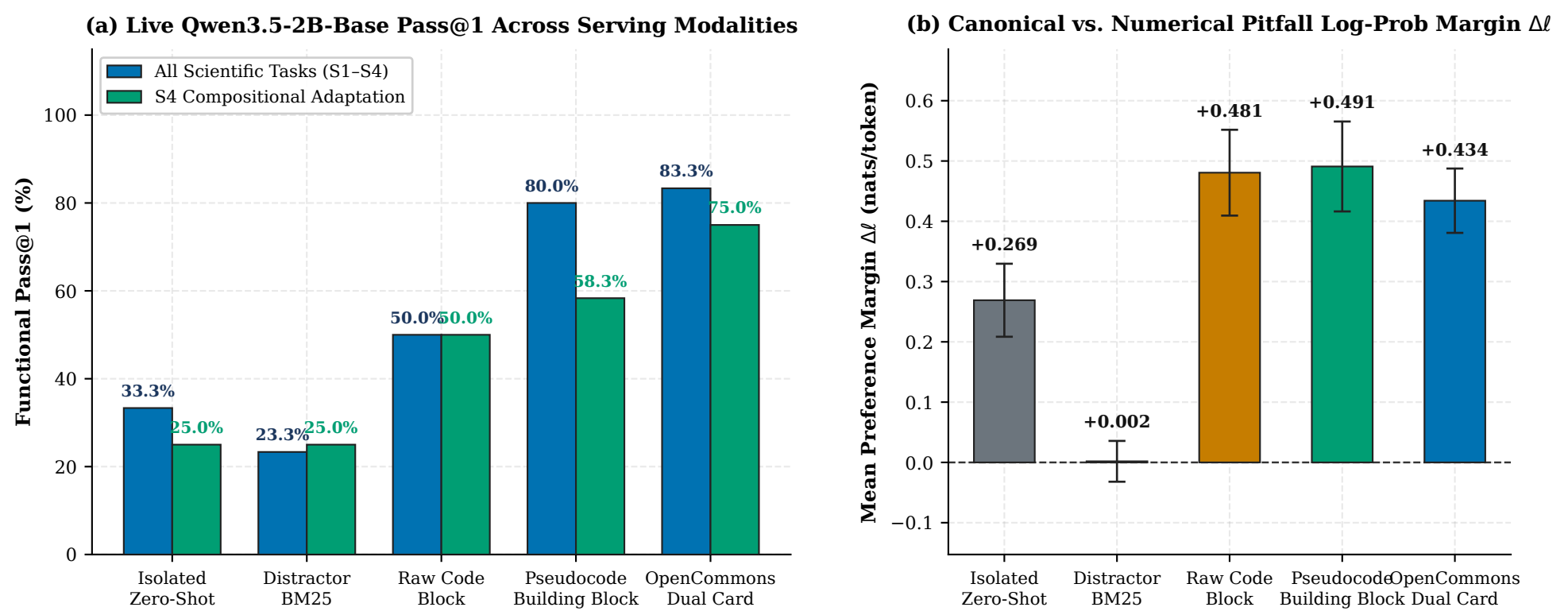
(a) Live Qwen3.5-2B-Base Pass@1 Across Serving Modalities
All Scientific Tasks (S1–S4)
S4 Compositional Adaptation
Functional Pass@1 (%)
0
20
40
60
80
100
33.3%
25.0%
23.3%
25.0%
50.0%
50.0%
80.0%
58.3%
83.3%
75.0%
Isolated Zero-Shot
Distractor BM25
Raw Code Block
Pseudocode Building Block
OpenCommons Dual Card
(b) Canonical vs. Numerical Pitfall Log-Prob Margin Δℓ
Mean Preference Margin Δℓ (nats/token)
−0.1
0.0
0.1
0.2
0.3
0.4
0.5
0.6
+0.269
+0.002
+0.481
+0.491
+0.434
Isolated Zero-Shot
Distractor BM25
Raw Code Block
Pseudocode Building Block
OpenCommons Dual Card